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HOARD'S DAIRYMAN

From July 18, 1924 to January 9, 1925 — *W. D. Hoard & Sons Co., Fort Atkinson, Wis.*

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 1 Fort Atkinson, Wisconsin July 18, 1924



Believe, world's champion Brown Swiss cow, and champion of all breeds for cows over 12 years of age.

Left — GEORGE MINETTE, under whose care the record was made.

Right — **F. P. MINETTE**, Sauk Center, Minn., owner.





14-Year-Old Cow Makes World's Record
Milked with a De Laval

Again a cow milked with a De Laval Milker makes a world's record—probably the most remarkable of the many great records made by De Laval-milked cows. This record was made by *Believe,* a purebred Brown Swiss cow owned by F. P. Minette & Son, Sauk Center, Minn., who at the age of 13 years, 6 months and 5 days, started a yearly test and completed it by producing 25,847.8 lbs. of milk containing 1002.62 lbs. of butter-fat. This record not only makes *Believe the greatest producer of all Brown Swiss cows,* but also makes her the *champion producer of all breeds for cows over 12 years of age.*

Believe was milked during the entire period with a De Laval Milker, and George Minette, under whose care the record was made, says:

"We have been using a De Laval Milker for over two years, and it has given very good satisfaction. We have used it every day and have just finished several wonderful records, especially the one made by *Believe.* No doubt *Believe,* being a wonderful cow, would have made a good showing anyway. However it is only right that we give the De Laval Milker its credit."

There is no question but that a De Laval Milker, because of its uniform, gentle and stimulating action, helps cows produce more milk, as records such as this are constantly proving. You may not be interested in making big records, but you certainly want to produce more milk, of better quality, at less expense—and this a De Laval Milker will surely help you do. If you are milking ten or more cows by hand, you can soon pay for a De Laval. It is sold on such easy terms that you can use it while it is paying for itself.

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HOARD'S DAIRYMAN

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A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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SELECTING ANIMALS FOR THE DAIRY HERD

E. B. FITTS, Pennsylvania State College

IF money is to be made in dairying there must be quality in dairy cattle. This is fundamental to success. By quality, in this connection, we refer to working ability or power to convert feed into milk. The mission of dairy cattle, as is also the case with most other classes of farm live stock, is to convert or manufacture the rough, bulky crops of the farm into food for the human race. Dairy cattle are more efficient in this important work than are other classes of live stock and for this reason they are found on a majority of the farms of this country. As population becomes more dense the tendency will be more and more for dairy cattle to supplant other food producing animals.

While it is a fact that dairy cattle as a class are more efficient than other farm animals, yet we find great differences existing among them in ability to work for their owners. Dairymen should never lose sight of this important fact. Instances are very common where one cow will yield twice as much milk as will another kept under exactly the same conditions and eating the same kinds of feed. Entire herds equal in number, kept on adjoining farms, where the same opportunity exists, often vary 100 per cent or more in amount of milk produced. In other words, the milk check received by one farmer from creamery or milk plant will be twice that received by his neighbor and this difference may continue month after month and year after year. Inferior working ability in dairy cattle often brings disaster to the dairyman, no matter how carefully he feeds or how hard he works.

Successful or profitable dairying being dependent upon quality or working ability of the cows in the herd, skill in selecting animals becomes a matter of prime importance. The most successful dairymen are good judges of dairy cattle.

Selecting the Breed

The best herds, in fact nearly all profitable herds, are built up along breed lines. The person who chooses a breed and sticks to that one breed has a much greater opportunity for success than the one who changes from breed to breed. The dairy breeds have developed as a result of many years of careful work in selecting and breeding with the goal ever in mind of constant improvement in type and in efficiency. As a result the dairy breeds, Ayrshire, Brown Swiss, Holstein, Guernsey, and Jersey, or grades of these breeds, produce more milk for feed consumed than do cows of other breeds or cows of mixed breeding.

The first step then in selecting animals for the dairy herd is choosing the breed. Individual preference and the predominant breed in the community are factors to be considered. There is no best breed. Breeds differ it is true, and each perhaps excels all others in some one point but none is outstanding above the others in all points. The breeds with high testing milk are favorites in many communities where cream or butter are sold, while those yielding larger quantities of milk of a lower test are popular in market milk territory. If no particular preference exists, choose the breed that produces the quality of milk called for by the market at hand. It is, however, of advantage to unite with other dairymen in the community in the choice of a breed or to choose the breed already common in the community. Greater progress follows a community interest in a single breed and a more ready market develops for surplus cattle.

Selecting Individual Cows and Heifers

Breed selection alone is not sufficient to insure a good herd. The selection of individual animals within the breed is of equal or even greater importance. Inferior strains exist in all the dairy breeds which result in inferior animals appearing in pure-bred herds from time to time. The selection of individual cows within the breed or grades of the breed becomes, therefore, a vital matter. This is especially true if one is choosing foundation animals on which to build a herd. Years of time may be saved in developing a high producing herd of good breed type if one starts with good foundation animals. Type is very important and should always be carefully considered. This is especially true in case of pure-bred herds. By type we mean shape, form, adherence to breed lines, and adaptability to purpose for which kept.

Milking ability is an inherited character that, to be great or small, is a permanent part of a cow's make-up or existence. The only certain way of determining the milking ability or usefulness of a cow as a milk producer, is to keep a record of her actual milk production during an entire lactation period. This is accomplished only through weighing her milk daily or at stated intervals during the year. Estimates based on amount produced in one day or for short periods are usually far from accurate. Cow testing associations are in existence in dairy sections all over the country because of a general recognition of the great need of records of milk production of individual cows in the dairy herd. These associations are groups of dairymen who unite in hiring a man to visit the herd of each member once a month and to weigh and test the milk of each cow. At the close of the year authentic records are available showing the total milk production or actual working value of each cow. As a means of selection milk records point the way.

A cow must stand or fall on her ability to work. A cow having once demonstrated the ability to produce paying quantities of milk will possess this ability until disease, accident, or old age reduce her efficiency or remove her from the herd. She will in addition always have a strong tendency to transmit this same working ability to her offspring. On the other hand, the cow that fails to produce a satisfactory yield under favorable conditions will always be unsatisfactory and she in turn will pass her poor qualities on to her offspring. Shun this type of cow as you would a pestilence.

The man going out to buy cows will find, however, that the vast majority of cows have no dependable records of production and the purchaser must rely on other means of selection. Here is where the eye of the dairyman needs to be trained to recognize good and poor points. A good judge is skillful in seeing the outer indications of internal working ability and is able to select the workers with a fair degree of accuracy. He looks for size of

(Continued on page 22)



MR. C. L. HILL — MRS. C. L. HILL

THE HOME OF MR. AND MRS. CHARLES L. HILL AND WHERE THE WISCONSIN STATE DAIRYMEN'S PICNIC WAS HELD JUNE 18TH

The Hill farmstead is well planned and beautifully located. It is a genuine farm home and affords all opportunities for happiness and contentment.

WORLD'S RECORD FOR JR. 2-YEAR-OLD JERSEY

THE world's record in the Jersey junior two-year-old class has been broken by Raleigh's Torono's Meme. In 365 days she produced 902.15 pounds of fat and 16,085 pounds milk, starting test at two years, five months of age. Her record sheet shows that for eight months of the test she yielded in excess of seventy pounds fat per month, and that she reached the peak of production in the sixth month, when she produced 99.02 pounds fat. Her milk averaged 5.60 per cent fat for the year.

Meme is an excellent individual, well grown, strong and vigorous, with plenty of capacity and quality. She finished in splendid condition and at no time was she off her feed. Feeding was carefully taken care of, but no unusual ration was fed. The grain ration was prepared in advance and fed immediately before milking. Milking was done very regularly and Meme was usually found to be waiting at the door of her stall for the milker. Eighteen pounds of the following mixture were fed daily: 250 lbs. ground oats, 200 lbs. wheat bran, 150 lbs. oil meal, 50 lbs. cottonseed meal, 100 lbs. gluten feed, 100 lbs. hominy feed, 15 lbs. salt, and 8 lbs. mineral mixture.

This feed was mixed with wet beet pulp. About thirty-five pounds of silage was fed daily, and alfalfa hay was before her at all times, but she did not eat a great deal of it. Green corn and kale were fed in season.

With her record of 902.15 pounds fat, Meme displaces Pearly Exile St. Lambert, the Oregon cow which has held this junior two-year-old championship since the year 1910. The former champion's record was 816.10 pounds fat.

A glance at the pedigree of Raleigh's Torono's Meme shows that she has in her the blood of some of the most outstanding animals of the breed. Her sire is Raleigh's Torono, a silver medal bull with twenty-five daughters and four sons in the Register of Merit. He is by the well-known medal bull, Hood Farm Torono.

Her dam is Noble's Grace Loretta, a Register of Merit cow that is a great granddaughter of Loretta D, the cow which won the distinction of having been the "best cow of any breed" at the St. Louis Exposition, both in Class A, for demonstrating the economic production of fat and butter, and in Class B for demonstrating the economic production of milk for all purposes of dairying.



RALEIGH'S TORONO'S MEME, WORLD CHAMPION JUNIOR 2-YEAR-OLD JERSEY
Year's record: 16,085 lbs. milk, 902.15 lbs. fat.
OWNED BY SHERMAN NURSERY CO., IOWA

Raleigh's Torono's Meme is owned and was tested by the Sherman Nursery Co. of Iowa, Mr. E. M. Sherman, president. The herd is under the direct and capable supervision of Ross Smith.—The American Jersey Cattle Club.

LOANING BULLS

S. R. WINTERS, Washington, D. C.

THE use of a pure-bred bull in a herd of twenty cows and heifers was the only thing lacking in the dairy operations of J. L. Werts who lives on a farm near Powell, Wyoming. He is so fortunately located that a natural-gas pipe line passes through his farm, which he taps for gas in running engines that operate the milking machine, cream separator, and churn, and also for supplying heat in sterilizing milk bottles.

Now, thanks to a co-operative arrangement between the Reclamation Service of the United States Department of Interior and the Dairy Division of the United States Department of Agriculture, the services of a pure-bred Holstein-Friesian bull have been made available to Mr. Werts and a group of neighboring farmers. The latter, by names, include R. B. Stetler, Earl Murray, and E. V. Lewis, who own in the aggregate 44 head of dairy cattle.

A similar arrangement for the use of a pure-bred Holstein-Friesian bull has been made for another group of farmers on the Shoshone project (Montana) of the Reclamation Service. They are T. T. Williams, R. G. Anderson, Dr. Elmer Gould, and J. E. McPherson, who own a total of 44 head of dairy animals. Mr. Williams has agreed to assume personal charge of this pure-bred sire and the expenses of maintenance are to be shared by this group of farmers in proportion to the number of cows which each keeps.

The two yearling pure-bred Holstein-Friesian bulls thus loaned by the Dairy Division of the United States Department of Interior were obtained from the Huntley Experiment Farm in Montana. The Reclamation Service is not unmindful of the importance of this co-operative arrangement as can be noted from a statement of this government bureau, as follows: "The obtaining of these pure-bred bulls is a matter of much interest and importance to the Shoshone project and indicates the tendency among those engaged in the dairy industry to obtain pure-bred stock and to increase production. Already there have been applications made to obtain similar animals for other groups of farmers."

The stipulations governing the lease of these pure-bred sires to groups of farmers require of the latter observance of the following particulars:

1. To feed and care for the bull at their own expense, to mate the bull with only such members of the herd as shall be agreed upon by the farmers and the Department of Agriculture, and to mate the bull with outside animals only upon obtaining permission from the Department of Agriculture.

2. To keep the herd free from tuberculosis by having animals tested yearly by the Bureau of Animal Industry and by promptly removing or isolating all animals which react to the test.

3. To keep accurate milk records of all cows with which the bull is mated, to test the milk of each such mated cow monthly for butterfat, and to keep accurate records as to the dates of breeding and calving.

4. To retain all heifers in the herd until they have finished at least one lactation period unless the disposal of heifers otherwise is approved by the Department of Agriculture.

5. To keep accurate milk records of all daughters of the bull and to test the milk of each daughter monthly for butterfat.

6. To permit the Department of Agriculture, at any and all times, to inspect all breeding and production records kept by the members of each group.

7. To feed the bull properly, to use the highest degree of care in caring for the bull, and to return the bull to the Department of Agriculture at the termination of the agreement in as good condition as when obtained.

In addition it is understood between the farmers and the Department of Agriculture:

A. That the bull shall remain the property of the Department of Agriculture and shall be subject to removal upon one day's notice, in case the department considers that the objects of the work to be accomplished under the arrangement are not being attained or upon failure of the farmers to whom the bull is assigned, to fulfill conditions of agreement.

B. That all expenses for veterinary services necessary while the bull is in the custody of the groups of farmers shall be paid by them.



HOLSTEIN-FRIESIAN BULLS LOANED BY THE DAIRY DIVISION OF U. S. DEPT. OF AGRICULTURE TO GROUPS OF FARMERS IN WYOMING AND MONTANA

Effects of Feed

HOARD'S DAIRYMAN:—On page 203 of your issue of February 22nd and under the heading, "Is Feed the Cause", we note some comments of interest by Mr. Frank Laubner of Pennsylvania.

The statement that "the most cases of failure of cows to breed are to charge to a too narrow ration and a too heavy feeding of the feed mixture" is too positive and sweeping a statement to go unchallenged.

It is undoubtedly true that much trouble is being experienced in many herds where a narrow ration is fed, but the mere fact that the ration is high in protein may be a coincidence and not the real cause. A ration containing only 18 per cent to 20 per cent protein might be an endless cause of trouble while a 26 per cent ration properly compounded and rightly fed might keep a herd in normal health while still up to a maximum of economical production.

The writer has had something over 20 years with registered Holstein-Friesians and in that time has fed many combinations of feeds in narrow rations and in sufficient quantities to make some very creditable records, including more than one world's record. During this time no case of sterility has developed which could be traced directly to "a too narrow ration—and a too heavy feeding of the feed mixture". It is probable that many feeds low in protein are just as conducive to sterility as the best of our standard high protein dairy feeds. An animal's system may be seriously deranged by overfeeding of a very wide ration or a narrow ration may be fed with satisfactory results.

Many well known dairymen are feeding rations sadly deficient in some of the elements necessary for maximum milk production, especially from the standpoint of yearly production, although the protein may be far in excess of requirements. Assuming then, that many cows fail to reproduce as a result of the ration received, is it not possible or even probable that the fundamental cause may lie in a lack of some necessary substance or substances, or in an excess of some deleterious substance other than protein in the ration?

The writer has never advocated the forced feeding of dairy cows on an excessively narrow ration, but has, on the contrary, always believed in keeping the herd under conditions as nearly normal or natural as possible.

It seems advisable to consider all the factors before condemning the proteins in the dairy ration. Overfeeding with almost any kind of a ration, especially when cows are too closely confined, would tend to derange the animal system with sterility as one of the results that might ensue. Feed liberally of good corn silage and alfalfa or clover hay supplemented with a grain ration compounded from good feeds containing the necessary phosphorus, lime, etc., as well as the proteins, fats, and carbohydrates. If such a grain ration is intelligently fed and the herd in other respects kept under conditions as nearly as possible as nature intended, disorders, including sterility, will be reduced to a minimum.

Wisconsin. L. M. HATCH.

EVER FAILING OR NEVER FAILING PASTURE

Part 3.

What's Done when Bluegrass Fails

WILBER J. FRASER, University of Illinois

DAIRY farming in the different sections of the country must include a great variety of soils. On rich, high-priced land, such as is found in most of the Corn Belt, where dairying is only a side issue of grain farming, it does not pay to have much permanent pasture. Larger returns per acre can be secured from the clovers, alfalfa, or cultivated crops.

There are some areas which may be called "natural pasture land"—hilly places, land with out-cropping rocks, land cut by streams, badly eroded or partially covered with trees and bushes, and areas impossible to drain. So on the great majority of dairy farms, the part to be used for permanent pasture is already fixed by the fact that the land can not be used for anything else.

This type of land comprises 13.7 per cent of all farm land in the eastern half of the United States, while in the nine chief dairy states it makes up 16.3 per cent of all farm land. In some of the New England States there is even a greater percentage of the farm land which is untillable. For instance, Massachusetts has 27 per cent; Connecticut, 29.4 per cent; and New Hampshire and Vermont, 34.3 and 40.4 per cent respectively, as shown by the 1910 census.

Much and Costly Feeding

The dairymen in many dairy sections, seeing that bluegrass does not adequately supply their cows during the summer, have resorted to supplementary barn feeding. We have seen in a preceding chapter that the dairymen in northern Illinois have about one and a half acres of bluegrass per cow, and we know that supplementary feed is required for five out of the six summer months. This practice of barn feeding in the summer is so large and well established in that region that I found by asking 42 of these dairymen this spring, that they do not know what one means by "the barn feeding period", since it is practically barn feeding the year around with them, the only exception being for one month during the last half of May and the first half of June when bluegrass pasture is abundant. The feed most frequently given was corn silage; some fed hay and grain; and some fed all three of these when the pasture was very short. Many fed as much as 30 lbs. of silage per cow per day, and half as much grain and hay as they do in winter.

Thus it is seen that the best dairymen in that section are supplementing the bluegrass pasture with almost an entire ration of expensive feed for a large part of the summer. In addition to this, too large an amount of the grain feed given to the cows during this period is purchased. Grain at best is an expensive feed and purchased grain is usually more expensive than that which is home grown.



COWS PASTURING ON ALFALFA—AN ECONOMIC METHOD OF SUPPLEMENTING BLUEGRASS

One and One-half Acres Cultivated Crops Per Cow

According to the four years' test of bluegrass reported in the first article, and counting one and a half acres of bluegrass per cow, the herd would require to supplement pasture an average of 30 lbs. of silage, 8 lbs. of hay, and 10 lbs. of grain per cow per day for five out of the six summer months. This silage, including waste, would require two and a half tons, or a fourth of an acre of good corn, per cow. The hay would require one-third of an acre; the grain: corn and oats, 750 lbs. of each, or 14 bushels of corn and 23 bushels of oats per cow would require a third of an acre in corn and one-half of an acre in oats. Thus it would require one and a half acres per cow to produce the silage, hay, and grain needed to supplement blue grass pasture during the summer six months. For a herd of 20 cows this would take 30 acres of land and all the labor of raising the crops, threshing the oats, making the hay, filling the silo, husking the corn, grinding the grain, besides the work of feeding these rations—*one acre of cultivated crops would be required for every acre of bluegrass pasture, and much labor in addition.* This is expensive summer feeding, and the expense or loss is much worse with the many herds that are not given this extra feed. The result is that they go hungry, lose flesh, and fall off in their milk flow.



CORN SILAGE AND ALFALFA HAY



The most satisfactory and economical supplements to bluegrass when no other pasture is available.

From observations made in other states during mid-summer and from talking with men of wide observation and experience in these states, it is safe to say that the dairymen who are the best feeders in all dairy sections meet the shrinkage of pasture by barn feeding during the summer in much the same way as do the dairymen of northern Illinois.

Overlooking the Economic Problem

Thus, although they recognize the great shortage of bluegrass pasture, they have failed to realize that the most economic way to feed cows during the summer is to use some highly productive pasture crop.

It is just as necessary for financial success to *feed the cows economically as it is to feed them well.* So many consider the cow's taste and requirements with never a thought of how to supply them as cheaply as possible. Frequently, oil meal, cottonseed meal, or other high protein feeds are purchased to supply protein requirements that should be supplied by legume pasture. We do not purchase oranges and bananas during the summer when we can get something of the same sort and much cheaper and fresher out of our own orchard and garden.

Similarly, if a cow needs a ton of feed, and one way it costs $15 a ton, and the other way it costs $30, there should be no doubt as to how best to obtain it. The dairyman needs that $15 he could save by making the right choice here in his feeds just as much as the cow needs the feed. He feeds the cow to make money, and the profit may be twice as great when an economic system of feeding is used as when an uneconomic system is used, even though the production in one case may be no greater than in the other.

High Cost of Supplementary Feed Prohibits Bluegrass Pasture

The extensive practice of letting the cows go hungry, lose flesh, and shrink in their milk flow on the one hand, or of feeding them two-thirds as much in the barn through the summer as in winter at a heavy cost in cultivated crops, *means that the dairyman must practically give up bluegrass on all but untillable land.* One can not correctly call this bit of bluegrass in spring and fall—pasture! It is only a garnish around the edges of summer feeding—a sight and flavor of green grass more for scenic or suggestive effect than for nutrition.

Isn't there any kind of pasture crop which will pasture cows all summer? That is the problem and the dairyman's quest.

How can this shortage of bluegrass be made up the most economically? Evidently it should be by some other kind of pasture, to save the labor of growing, harvesting, and feeding supplementary crops; and it must be a deep rooting plant to withstand the drought that stops the growth of bluegrass, and should be a legume if possible. Alfalfa and the clovers are the deepest rooting legume pasture crops, and are therefore the first to be considered.

Alfalfa as a Pasture Crop

Many good dairymen have successfully pastured alfalfa after the first crop was cut for hay, just at the time when bluegrass pasture nearly always fails, with the only disadvantage of occasional cases of bloat. The University of Illinois sent an inquiry

(Continued on page 21)



FEEDING HUNGRY HEIFERS GREEN CORN ON SCANT BLUEGRASS PASTURE—A WASTEFUL AND UNSATISFACTORY METHOD OF FEEDING



PERMANENT BLUEGRASS PASTURE HAS A PLACE ON THIS STONY, UNTILLABLE LAND

New York Milk Situation

H. H. LYON, NEW YORK

THE recent developments in the New York Dairymen's League territory have caused much discussion, have brought to light some facts not well understood in a general way, and have caused in various quarters a certain amount of misunderstanding. Out of all this I am looking for some good to come ultimately. The much-heralded Committee of Fifteen has apparently come to naught, but I would be the last to discredit the effort. It has been the means of bringing facts to the open, which although not altogether recognized are nevertheless capable of recognition and will be examined more or less as the time goes on. Credit then to the effort to harmonize the groups of dairymen. We will hear more of this in the days to come or I am no good guesser.

Every farmer is talking about the unfortunate ending of the work of the committee on the 30th of June. Many pool members are solidly with the action of the League representatives on the committee. Some are rebellious, threaten to withdraw at the first opportunity and predict the downfall of the League when February comes. The anti-pool dairymen vary from despondency to belligerent anger, yet not knowing of a thing that they can actually do. I have been visiting from 15 to 30 of these dairy farmers of all shades of opinion almost daily for some time, both before the last meeting of the committee in June and since then. The reaction is interesting yet it tends to cause one to do much sober thinking. These dairymen are hard pressed by the present economic conditions and quite frequently they blame the League for the predicament in which they find themselves.

It will be remembered that at the annual meeting of the League, Vice-president Miller expressed the hope that if the Committee of Fifteen refused to work on fundamentals and insisted on price fixing that the three League representatives would immediately withdraw. This is exactly what happened. The League representatives (not that they were appointed to represent the League but acted because unofficial members asked them to act) early in the day suggested a plan and offered a resolution that a study be made of New York City milk markets and of the New York milk shed production, and also suggested that this survey be conducted under the direction of Dr. Warren of Cornell by means of the recent appropriation for study and teaching of marketing problems.

All through the day this resolution had some discussion. The opposition was not ready to turn it down rudely, but they were opposed to it and they had twelve votes against three organization votes. They finally introduced their resolution that the price of milk be $2.33 for the fluid market after early July, but they kept on discussing the other question. Late in the day they modestly voted to table the League plan. The chairman, a League man, immediately resigned his place which was then supplied by another from another group. The next question was the advance in price and the three League members withdrew stating their reason, after which the twelve adopted the price of $2.33. No one can blame them for advancing the price if they can and will. The vote was harmless, of course, for they cannot advance the price a penny. They wait on the League for that and economic conditions control the League.

Another meeting has been suggested for July 12th, I believe. I cannot see how these same League men can return and I know of no other real League men who under present conditions can act. Without the League there appears nothing that can be accomplished.

Meanwhile, other activities are in progress. A few new dealers are buying of the League entirely who before bought from pool and non-pool producers. One can readily see the difficulties of this course of buying. No matter which set got the best price, the others complained. First it was one way and then the other and it caused bother to the superintendent and in the office. One of these buyers had 1,200 pool patrons and 1,300 non-pool.

Also the League was able to divert from a competing non-pool buyer a hundred or more to the newly acquired pool buyer. The League works with its customers just as efficiently as does any business concern work with those who make that business go. This is real business method. We sometimes hear it charged that the Bordens are paying the League officers big graft just to keep the price of milk low. There is no reason for any such suspicion. The League does work with the Bordens in a way for they are friendly buyers but the Bordens do not control any action of the League so far as I can see except as to good business activities. The League directors desire to advance the price of milk but cannot do it with so large a surplus, so small demand, and with other dealers and producers cutting into the markets at an under price.

Whatever may be one's opinion of the non-pool association management, it is very evident to me that many of the anti-pool dairymen are as sincere as any other class. They do not see things as poolers do. I had a conversation with an anti-pooler lately. I do not think he is a member of the non-pool association although he did not say. If I got his real meaning, I believe he is just as honest in his belief as any one. He argues that there is no surplus of milk and no need of a contract in an organization, for if the League organization, for example, were honestly and efficiently handled it would be getting such good prices for its members that all farmers would be tumbling over themselves to get in. I think he believes it. He says that the old League did that for one year and that is the only year in the past ten in which he has made a cent. Since the present management got hold they have held prices down, ruined the farmers, and there can be no explanation except that they are paid to do it.

As we look at the situation, not all dairymen can be brought into one organization. Jealousies and misunderstandings are prominent. Many of these have come into being through the efforts of those who oppose co-operation, but they are here just the same. One milk dealer said to me today that it is impossible to make much out of an organization unless 90 per cent of the farmers belong. Even if 80 per cent will do, as some think, the task of getting them seems at this moment beyond a possibility. The Eastern States Association, through its individual member associations, has plants and can operate. If it should organize solidly so as to be an effective marketing association it would be in line to help work out the present difficult problems. There are many dairymen, some of whom own plants, who are not affiliated with any association. If they will join a good working organization or form one of their own that is solid enough to operate and in these ways 80 or 90 per cent of the dairymen can be really organized, they can perhaps work out some plan by which a board may direct sales.

Something of the sort is needed, but the League proposal to determine the basis upon which to work by an authentic investigation of markets and production, preferably under the direction of the state college as proposed, can hardly be overestimated as to importance.

As July and mid-summer weather advances, there is a possibility of increased demand for milk and its products. Flies are here and pastures are becoming shorter and drier. Farmers are not feeding quite as much grain as they have fed some years apparently. It may be that the League may be able to advance the price of fluid milk almost any time and I surely expect it to be done before these lines get into print. Butter and cheese prices seem to be slightly advancing and this if continued will tend to elevate fluid prices. We must all, poolers and "antis", come to see that marketing conditions have more to do with fluid milk prices than any organization, no matter how completely equipped, can arbitrarily have. So many seem to think that a price can be stated on paper and that settles it. No such thing is possible.

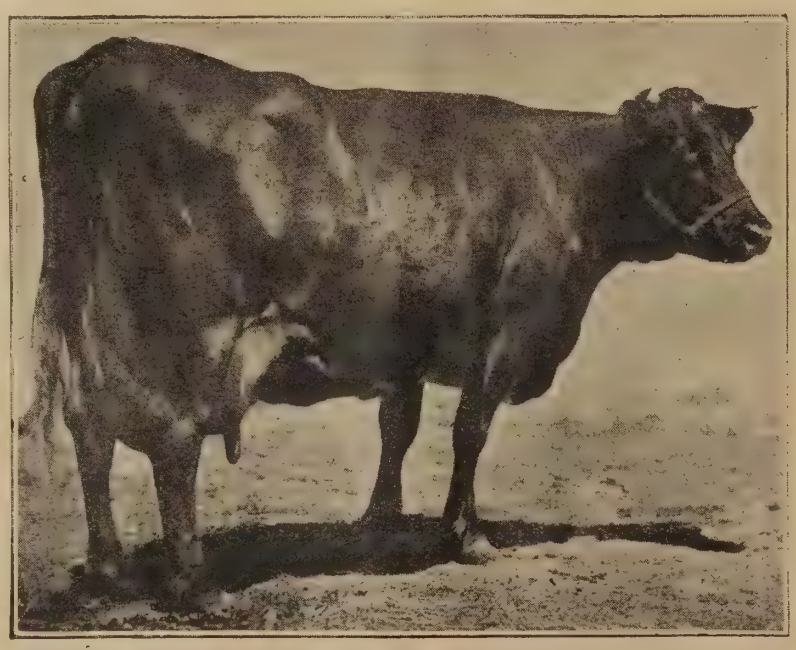
As stated, the twelve members of the committee representing four of the five groups voted the price of $2.33. In the case of these groups they immediately posted a price of $1.72 or less. In certain cases that I know $1.50 was at once posted for all milk regardless of test and that was by (in one case) a condensery where milk is supposed to average a test of about 3.4 per cent. A Limburger cheese factory, I am told, offered about $1.60 and no test. These are among the so-called independent groups. With $2.33 for fluid voted and $1.72 or less posted, the real sincerity and efficacy of the vote at once appears.

The pool price for May was, I believe, $1.40 for three per cent milk including certificate deductions or $1.30 in cash at the 201—210 mile zone. Many dealers, manufacturers, and, according to reports, some of the eastern states plants received less than $1.40. There were others such as the Sheffield producers who got more. Averaging it all I am rather of the opinion that the anti-pool producers must have received just about the same as the pool producers. I have met several farmers who say what is the use of an organization then if we get no more than without one. This is not a wise question but it is likewise not unusual. More careful thought shows that with no organization the whole price level would be lower.

It is easier to fill up the bed of a mountain torrent than to satisfy the heart of a man.—Chinese proverb.

A man may be strong, and yet not mow well.—Proverbs of England.

A New World's Champion Dairy Cow



"MELBA 15th of Darbalara, a Milking Shorthorn cow, has made on three milkings a day in 365 days an official record of 32,522 lbs. milk containing 1,614 lbs. butterfat. This exceeds any other record for butterfat made by any cow of any breed on any number of milkings a day in 365 days. It makes Melba the champion dairy cow of the world."—Milking Shorthorn Society.

In our June 6th issue, we published an article by Mr. R. M. Kinross who knows the breeding of Melba 15th, which reported her record for ten months, and that exceeded the world's yearly record. In the ten months Melba 15th produced 28,755 lbs. milk containing 1,399.35 lbs. fat.

Melba 15th of Darbalara is owned by the Scottish-Australia Investment Company of New South Wales. She is a descendant from the early importation of Bates Shorthorns which were bred for milk and were introduced into Australia many years ago. According to reports which have come to us from reliable authorities, no bulls in recent years, at least, have been imported from England into the herd of which Melba 15th is a member. The bulls have been selected from dams showing strong milking proclivities.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Va.	Henrico	June	R. H.	81.6	Miniharyer F'm
"	Southside	"	R. H.	84.5	O. Moyer
Ill.	McHenry	"	R. H.	103.5	G. Dygert
"	Kane Co. 2	"	G. H.	77.6	O. Pritchard
"	Ogle Co.	May	R. H.	83.3	Rock River F'm
Mich.	Barry 1	June	G. H.	76.4	R. W. Cook
"	Trav.-Antrim	"	R. G.	69.1	C. W. Fox
"	Genesee 3	"	G. H.	88.4	J. P. Eddy
"	Kalamazoo 2	"	G. J.	63.0	B. N. Case
"	E. Montcalm	"	R. H.	62.0	J. Steer
"	Branch Co.	"	G. H.	60.2	C. Mollenkopf
"	Rives-Jack.	"	G. H.-S.	62.1	W. S. Wood
"	Macomb 2	May	R. H.	67.3	W. Manska
Mass.	N. C. Berkshire	"	R. H.	73.4	S. Kelly
Ind.	Elkhart	"	R. H.	75.2	A. Landis
Wis.	Superior	June		60.4	
"	Ft. Atkinson	"	G. G.	73.5	Kreuger & Johnson
"	Eau Claire 1	"	G. G.	60.8	C. Ives
"	Oneida Co.	"	G. H.	87.0	F. Miles
"	Saukville	"	G. H.	80.8	F. Drier
"	Alto-Metomen	"	R J.	70.5	E. Bruins
"	Plov.-Marathon	"	G. H.	101.0	A. G. Elbert
"	W. Salem-Bangor	"	R. H.	84.1	J. McDonald
"	Rockfield	"	G. H.	73.0	Mrs. C. Bast, Sr.
"	Ten.-Dickeyville	"		63.4	F. Siepkler
"	Stratford	"	G. G.	67.0	H. Katterhenry
"	Allen.-Koblsville	"	R. H.	83.5	C. Rosenthal
"	Bloomer	"	G. H.	63.9	A. J. Martin
"	Rewey	"	R. H.	63.8	S. Kempe
"	Farmington	"	R. H.	80.8	W. Gruhle
"	Clinton	"	R. H.	63.5	Craighurst F'm
"	Spr. Green	"	R. H.	69.8	Schwartz Bros.
"	Cedar.-Grafton	"	G. H.	65.7	W. Wegner
"	Milton-Edgerton	"	R. H.	73.6	L. Kumlien

Association Notes by Testers

Southside, Va.: Three members installed boilers, two now shipping Grade A milk. One member built a new milk house with complete new equipment. One milking machine was installed and one herd tuberculin tested. The Powhatan Cheese Co., a co-operative plant in a bordering county, is now buying surplus milk from the largest dairy in Richmond, and has just established a truck route through part of this territory. Last year, the first year of operation, the company cleared a profit of 3c per pound of cheese and paid off all the outstanding notes held by the bank. It is now doubling its present capacity. Powhatan County has poor transportation facilities to any appreciable milk market and this co-operative cheese company was organized by the agricultural agent, L. E. Pettijohn. The success of this company promises well for dairying in this section, where it is just beginning to supersede other types of farming. Market milk sold for $3.93 fluid and $1.75 surplus (20% surplus). The cheese factory paid 42 cents per lb. for fat. —C. A. Buck.

Henrico Co., Va.: The 630 cows tested in June averaged 644 lbs. milk, 24.5 lbs. fat. During June 52 animals were purchased. One member entered 6 cows in the R. O. P. Another member has a new 60-cow, 2-story, grade A barn under construction. Excessive wind and rain have been destructive to hay crops and silos in this section.—S. Simpson.

McHenry Co., Ill.: The best herd in this association has just finished the year with an average production of 12,745 lbs. milk, 464.4 lbs. fat, an increase of 1,100 lbs. milk over the preceding year. The high cow produced 15,410 lbs. milk. Nineteen herds produced an average of over 30 lbs. fat per month. Market milk sold for $2.30 per cwt. in June and retailed for 12 cents per quart.—G. Hill.

Kane Co. No. 2, Ill.: The 572 cows in milk in June made an average of 885 lbs. milk, 30.4 lbs. fat; profit above feed cost, $15.72. Four purebred heifers and 15 grade and purebred Holstein cows were purchased in Jefferson Co., Wis. Julia, a 5-year-old grade Holstein owned by Oliver Pritchard, freshened December 28 and has made 11,537 lbs. milk, 460.7 lbs. fat since that time. She is high cow in the association in June. Market milk sold for $2.30 per cwt. and retailed for 10—13 cents per quart. —W. K. Bullock.

Ogle Co., Ill.: This association is much stronger than when it was organized two years ago. E. J. Brundage, Attorney General of Illinois, is the latest member to join with a herd of pure-bred Jerseys. Farmers are complaining of low price of milk. Rock River Farms' herd of 96 cows averaged 1,249 lbs. milk, 425 lbs. fat.

Traverse—Antrim, Mich.: Two stables were whitewashed, two new separators were installed, and two purebred Guernsey cows sold for $235 each. Twenty out of thirty members feed grain with pasture. Clarence Selkirk has the high cow in fat production for 9 months, 404.10 lbs. Creameries paid from 30—35 cents per pound for fat in June.—R. J. Kaiser.

Genesee No. 3, Mich.: This association finished its first month of the second year. Compared with a year ago, there is an increase of 110 lbs. milk, 2.8 lbs. fat for the month of June. Market milk sold for $1.75—$3.00 per cwt. in June. The creamery paid 39 cents per lb. for fat. Milk retailed for 13 cents per quart.—O. Wenger.

Branch Co., Mich.: This association finished its year's work last month. O. W. Butcher has high herd in fat production, his 14 cows averaging 8,737 lbs. milk, 404.24 lbs. fat. Average production of 223 cows in this association was 6,778 lbs. milk, 284.-02 lbs. fat. Nine herds averaged over 300 lbs. fat and 26 cows produced over 365 lbs. fat. Market milk sold for $2.50 per cwt. for milk; the condensery paid $1.30; the creamery, $2. —L. Q. Kitchen.

Rives—Jackson, Mich.: A few members are trying soy beans this year. Twenty-one samples of soil were tested for lime. Sixteen members feed grain on pasture. Six separators were tested. One separator was being run backward with a loss of $2.50 per cow per month. Four members keep daily milk records. Market milk sold for $2.10 per cwt.; the condensery paid $1.55—$1.60; the cheese factory, $1.50 flat for 3.5% milk.—J. Bird.

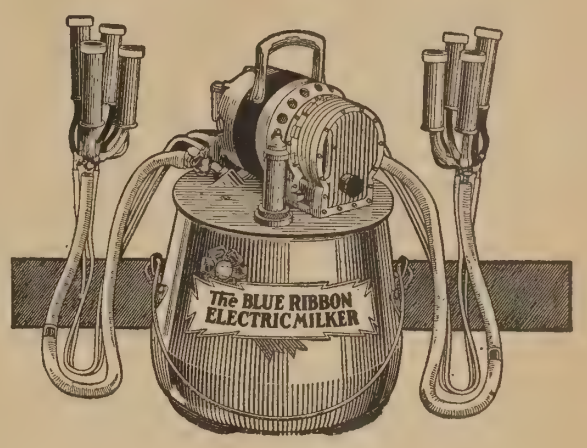
Plover—Marathon, Wis.: Two barns were whitewashed, 3 new silos purchased, one new barn is being built, one milking machine installed. The cheese factory paid 39 cents per

(Continued on page 11)

"If my Blue Ribbon Electric Milker were taken from me, I would quit dairying tomorrow"

From an unsolicited testimonial written by a successful Illinois dairyman. (Copy of letter on request.)

THIS dairy business man milks thirty-five cows three times a day. He had worked with a Blue Ribbon two years before he bought his own. Now, in his own words, he calls it his "Blue Ribbon Life Saver."



BLUE RIBBON ELECTRIC MILKER

marks the end of milking drudgery. It releases man-power for more productive work. It stabilizes the dairying industry and helps to place it on a firm business basis. Blue Ribbon Electric Milker is self-contained. The power plant is on the pail cover. The whole machine can be carried with one hand. No installation is required —it is plugged into any existing light socket like any household electrical device.

Economy is paramount because first cost is low, operation is low and maintenance expense is negligible. A working demonstration may be arranged by appointment. Write for full information, including new catalog.

The Cloverleaf Milker

Same principle of pulsation action, same "hit with the producer," but operated on the pipe line vacuum system. Where electricity is not available, either from central station or farm plant, Cloverleaf Milker is the mechanical hired man. Here's one piece of machinery which "keeps the boys on the farm."

$50.00

brings you the "Cow's Best Pal"

—

Pay the Balance in Ten Months

—if you and your herd are satisfied!

Dealers Wanted in the Chief Dairying Regions

We have a most attractive dealer proposition to offer to live men of high standing in their communities. The closest co-operation will be given our dealers, including extensive local advertising and direct work among herd owners. Write us for full details of our most liberal dealer offer.

BALTIC SALES CO., *Inc.*

Dept. R-725, 105 South La Salle Street Chicago, Ill.

Also United States Representatives for the LACTA *Separator*

EDITORIAL COMMENT



HON. J. Q. Emery, Dairy and Food Commissioner of Wisconsin, advises us that in the year 1923 the production of creamery butter in Wisconsin was 147,550,611 lbs. which was 8,857,289 more pounds than was produced in 1921. The production of cheese was 343,303,157 or an increase of 44,570,188 lbs. over the production in 1921. The value of the cheese for the year 1923 was $77,431,700 and the value of creamery butter was $65,567,474, an increase of $24,424,652 on cheese over the year 1921 and of $8,565,622 on creamery butter over that of 1921.

WHY MORE LAND

President R. A. Pearson of the Iowa State College comprehends the fallacy of the government bringing more land under cultivation at the present time. He commends two editorials which appear in our issues of June 13th and 20th against developing more land under present agricultural conditions. President Pearson has upon several occasions spoken against the federal government's land policy and in a recent address said:

"Let the government take a vacation in respect to opening up more farm lands with the aid of great, expensive, irrigation enterprises. These developments are costing enormous amounts of money. Let us spend it in better ways to help agriculture. We sometimes boast of the wonderful dams, the largest of their kind in the world, which make possible the development of large areas of productive farm land. These improvements are of great benefit to persons who are engaged in promoting the enterprises and of great benefit to land speculators who sometimes make fortunes in dealing in the new lands and raising the prices until the lands are sold at high figures to bona fide farmers who must always carry a large overhead interest charge on values which have gone into the pockets of shrewd promoters and speculators. And then these farmers with the opportunity which has come to them through the munificence of the government become competitors in a field that is already well filled if not overcrowded and prices of agricultural products fall accordingly."

TO PRODUCE MORE FOR THEMSELVES

The Extension Division of the Virginia Polytechnic Institute has outlined a program for the purpose of encouraging the farmers in that state to produce more food and feed on their farms. It is the natural tendency among all people to specialize. The wheat farmer desires to raise little else than wheat, the cotton farmer cotton, and even our dairy farmers have a tendency to produce nothing but milk. There are instances perhaps when the farmer can devote himself to one crop and pay little or no attention to anything else. On the other hand, the single crop system, as a whole, has been one of the drawbacks to agriculture.

The Extension Department of Virginia in the month of April was successful in getting several thousand farmers to sign enrollment cards agreeing to do seven out of the ten following things:

1. To raise enough corn and hay to carry me one year without buying.
2. To raise enough meat to supply my family for one year.
3. To have a spring and fall garden.
4. To provide milk and butter for my family the whole year through.
5. To keep an average of at least 30 hens.
6. To improve my orchard this year.
7. To work for richer lands.
8. To enroll one or more of my children in club work.
9. To add some home convenience.
10. To do something to beautify my homestead.

Our agricultural conditions have started these farmers to thinking and if they only partially carry out the program which has been outlined, it will prove a valuable undertaking. It takes much effort to get farmers to change their system of farming.

Last summer we visited a farm in southern Minnesota that had been growing cereals for years. The return in 1922 for an acre of barley was $22.50. In 1923 this man's land produced more than 3 tons of alfalfa hay per acre and it had been his custom for years to buy alfalfa hay in the West and it cost, in 1922, $25 a ton laid down at his railway station 7 miles away. If it had not been for the Minnesota Experiment Station, this man would still be buying his alfalfa hay in the West, at a cost to him of $25 a ton, and raising barley and wheat that would not be returning him as much per acre as one-third of an acre devoted to alfalfa.

BACON HOGS

According to reliable reports, American bacon has been losing ground steadily to the Danish product in the English market. The English market is one of the principal export outlets for pork products and if the American hog raiser is to hold his share of this market he must improve his hogs by breeding and feeding. The Danish farmer has directed himself to raising the kind of hogs that will produce the best quality of bacon. The process of making bacon in Denmark is not superior to that followed in this country but the hog, due to methods of breeding and feeding in Denmark, meets the requirements of the English market better than does the American hog.

The dairy farmers in this country are in admirable position to produce the quality of bacon demanded in the English market. A large percentage of them have an adequate supply of skimmilk and there are many sections where barley will produce more feed per acre than corn. Skimmilk and barley are two important feeds in the production of high quality bacon. Whey and barley make an admirable ration and produce very satisfactory gains as well as high quality pork.

There are packing companies ready to enter upon an educational program among the hog producers to breed, feed, and grow hogs for bacon production. What is desired is lean bacon. An inducement to raise hogs, which will measure up to the standard for bacon, will be made by paying an increased price for them.

DAIRY FARMERS' PROBLEM

Cow testing associations until recently have not been properly recognized by the leaders in dairying. For the past twenty years these institutions have been gradually working their way into the system of dairy development. The first work of testing cows on the farm was done by the Illinois Experiment Station in 1901. A few years later Helmer Rabild, of Michigan and now of the Dairy Division, organized the first cow testing association in Michigan.

It is with keen satisfaction that we note that Hon. Frank O. Lowden, president of the Holstein-Friesian Association of America, says in the Holstein-Friesian World:

"Whenever a cow testing association is organized in any community, the unprofitable cows begin to disappear. For the owner, having before him the cold fact that a cow is not producing milk enough to pay even for her feed, to say nothing about labor, soon rids himself of her. If the dairy farmers of the country all belonged to cow testing associations, there would not be the slightest danger of overproduction within the life of any man living. For as prices declined, the farmer would make a further elimination of the least profitable cows, and in this way production would be curtailed until the price rose again. I know of no other place where production can be so easily and so inexpensively adjusted to consumption as upon the dairy farm. This association and other pure-bred dairy associations can do more effective work than in encouraging and fostering the organization of milk testing associations wherever they do not now exist. Scrub bulls will disappear. A large demand for pure-bred bulls will come and the unprofitable cow will become taboo."

Mr. Lowden strikes at the very heart of the dairyman's problem, and we could conceive of nothing that would be of greater service to the dairyman than to have all the cows producing milk in this country give an account of themselves before the milk scale and the Babcock test.

TRAVELING SOILS LABORATORY

The Soils Department of the Ohio State University is co-operating with the Erie Railroad in equipping a "Traveling Soils Laboratory". Several cities in northeastern Ohio will be visited, beginning August 5 and continuing until August 15. This Traveling Soils Laboratory will be equipped to determine lime requirements of the soil brought in by farmers and their content of organic matter, nitrogen, and available phosphoric acid. The following directions have been given for taking soil samples:

"With spade dig holes 7 inches deep at 10 or 15 places in the same field. Remove thin slice from side of each hole. Mix together, dry, and pulverize. Bring one pint for analysis. Confine each sample to one kind of soil only."

After the soils have been analyzed, the farmers will be given advice as to the kind of fertilizers to use and in what way the soil should be handled to bring the best results.

Much money has been wasted in the purchase of fertilizers by farmers who lack knowledge concerning the composition of their soils and what kind of fertilizers should be purchased for them.

The Ohio State University and the Erie Railroad should be commended for giving the farmers of Northeastern Ohio an opportunity to learn the composition of their soils and what fertilizers they need.

PERTINENT QUESTIONS

The several state-wide co-operative marketing companies in Wisconsin have created what is termed the Wisconsin Co-operative Marketing Council. It is made up of one representative from each of the co-operative marketing companies. This council meets from time to time to discuss questions pertaining to the co-operative marketing of farm products. At their next meeting the following pertinent questions will be discussed:

1. To what extent will increased efficiency and co-operation remove the bad effect of surplus production on the industries of this nation?
2. Why is it that the extensive development of co-operative marketing has had no influence on the basic problems of overproduction facing the farmer?
3. Can co-operative marketing achieve what its leaders hope for if measures are not taken to prevent the periodical recurrence of glutted markets?
4. Why is the demand for farm products as well as other products almost continually below the supply of such products?
5. Why does the farmer's cost of production almost constantly exceed the returns which he is able to realize on his labor and his investment?
6. What, if anything, can be done by the state and the nation to create a demand for farm and other produce that shall absorb the supply of such produce?
7. What is the effect of our present system of taxation, both state and national, upon agriculture and upon the demand for agricultural products and is it possible to make a change in these systems that will improve the agricultural situation?

Think on these questions. It will bring a better understanding of our agricultural problems.

Soy Beans and Sudan Grass

How about sowing soy beans in drills 30 inches apart, cultivating them once, waiting about a week and then sowing 10 or 12 lbs. of sudan grass, cultivating again, and then cutting for hay?

Kansas. L. R. S.

The evidence regarding the advisability of growing sudan grass and soy beans is somewhat in conflict. A few people have reported successful mixtures, others have had adverse results. We have no record of anyone having tested out the method of combination suggested by the inquiry. Since both soy beans and sudan grass grow well, however, it is reasonable to believe that the combination can be made. By putting in the soy beans two weeks in advance and sowing 10 to 12 pounds of sudan grass two weeks later and cultivating it in would give an excellent prospect for a stand of both. The experiment is well worth trying and probably will succeed on land that is adapted to the crops. It is probable that it will succeed better than where the sudan grass and soy beans are mixed and sown broadcast, though fair yields have been secured where this has been done.

Minnesota Exp. Station. ANDREW BOSS.

Pasturing the Nurse Crop

Kindly give me your opinion as to whether or not you recommend pasturing alfalfa seeded with oats as a nurse crop; also sweet clover seeded the same way.

Coldwater, Mich. E. A.

We would hesitate to pasture alfalfa that has been seeded with oats, and would ordinarily prefer to cut the oats for hay. There are a number of farmers who have followed this practice and report excellent results. If this is done, care should be exercised not to turn the cows out when the ground is soft so that the young alfalfa is tramped. Care should also be exercised not to pasture the young alfalfa too close.

We have never attempted pasturing off the nurse crop and recognize that we are giving, quite largely, a personal opinion. Men who pasture off the nurse crop seeded with alfalfa are quite enthusiastic about this practice. They assert that if ordinary care is exercised, the results are excellent. Cows will not eat the grass off so closely as to do any considerable damage.

Sweet clover seems to be somewhat more hardy than alfalfa, and we would have no hesitancy in pasturing the nurse crop in this case. We recommend this practice where pasture is desired. We have less fear in the case of sweet clover because the seed does not cost as much and we are not quite so anxious to be insured of a good stand the succeeding year. We are quite satisfied if the stand is sufficient to make good pasture and leaves a fairly good growth for plowing under the same fall or the following spring.

Topdressing Alfalfa—Sweet Clover With Soy Beans—Paraffin For Silos

Would like information on top-dressing with manure new seeding alfalfa that is two years old. It is claimed around here that top-dressing new seeding alfalfa kills the plant.

Would like to know if you can sow sweet clover with soy beans and be sure of a crop of the clover for the next year. Can you sow sweet clover after soy beans are taken off in fall or is it too late to sow it then? Which is the best variety of sweet clover for pasture on hilly ground?

Is it advisable to wax a silo on the inside at the same time it is being filled to keep the silage from spoiling? The Standard Oil Co. is turning out a product that it recommends for that purpose.

Wisconsin. D. BROS.

We do not know of any reason why the top-dressing of alfalfa should do any harm, whether the alfalfa is old or new. As a matter of fact, we would consider it would prove helpful and our only question is as to whether this would be the most profitable place to put the manure. The application would have to be very heavy to do any damage.

We have heard of no experience of seeding sweet clover with soy beans. If the soy beans are sown solid, the sweet clover might be sown after the soy beans have been planted, providing there will be no further cultivation of the ground. If the ground is cultivated, the sweet clover could be sown immediately following the last cultivation. Where soy beans are grown in rows, it would be possible to seed the sweet clover after the last cultivation under the same method as is followed in seeding alfalfa or sweet clover in corn.

You might have success in seeding sweet clover following the harvesting of a crop of soy beans, but we are inclined to believe that for your section and climate this would not prove highly satisfactory.

We recommend the use of the biennial white sweet clover. This is the cheapest seed and proves very satisfactory under most conditions. It is said that the yellow biennial will give a somewhat more branching growth and will make a somewhat better class of hay. However, our main recommendations for sweet clover are their use as pasture and green manure. For these purposes the biennial white has proven highly satisfactory. It is well to bear in mind that the scarified seed should be used as otherwise more seed is required. The recommendations are to use from 10 to 15 lbs. of scarified seed per acre. In our own experience where we have grown sweet clover for a number of years, we find that we get a very excellent stand with only 10 lbs. of seed to the acre. If the land has not previously grown sweet clover or alfalfa successfully, the inoculating material should be used in order to insure the best growth.

We would suggest writing the Dairy Division, U. S. Department of Agriculture, Washington, D. C., for a bulletin on the "Treating of the Interior of Silos with Paraffin". They have found it very satisfactory.

Molds In Cheese Curing

Please inform me how to get rid of fungus growth in a cheese storage room.

Los Angeles, Calif. O. V.

Fungi includes molds, mildews, rusts, smuts, mushrooms, toadstools, puffballs, and other allied thallophytes. A brief description of the appearance, color, size, extent, frequency of occurrence of the growth in the curing room, and some description of the room itself as to temperature, humidity, light, construction, etc., would enable one better to understand just what the difficulty is. I suppose you refer to mold on the surface of the cheese, or possibly to mold found inside the cheese when it is cut.

If cheese becomes moldy inside before it has been cut, this is positive proof that the surface or rind of the cheese was not properly closed up in the process of manufacture. The rind of an American, Swiss, Brick, or Limburger should be perfectly closed, so as to cover the cheese air tight without any breaks or opening. The rind of a cheese, like the skin of an orange, banana, or apple, is necessary to protect the interior. Any slight opening left in the cheese surface by careless workmanship in the factory will admit air to the interior of the cheese while curing in the cellar, and as a result mold will grow freely throughout the interior of the cheese wherever the air penetrates.

Normal cheese gives off a little carbon dioxide during the curing process, and this should fill any interior spaces in the cheese and prevent the growth of molds in these spaces. If air is allowed to enter through the most minute rind openings or cracks, even a small proportion of air mixed with the carbon dioxide inside the cheese will permit a development of mold. It is for this reason that holes are intentionally punched in the surface of Roquefort cheese in the curing room, as without some air in the interior the desirable mold could not grow in Roquefort. If American cheese is found to be moldy inside when first cut or bored, the maker is to blame.

Mold requires both moisture and air for its growth. If cheese becomes moldy on the outside in a few days while in the curing room, this generally indicates that the humidity or dampness of the room is too high. With Swiss, Brick, and Limburger cheese, the humidity must be kept high during curing; therefore, to prevent mold from accumulating on the cheese surface, these cheese must be washed with salt brine about every two days, as mold cannot grow in a strong salt brine.

American cheese are not washed in the curing room; but if they get moldy they may have to be washed, cleaned, and dried after curing and before marketing in order to give the rind a clean appearance. This may occasion a good deal of extra labor and expense. American cheese are always first dried on the surface as soon as they are taken from the press. The usual factory "curing room" at the present day is nothing more than a drying room where the cheese are placed on shelves, turned over once or twice daily for three to ten days, until they are well dried on the surface and are ready for paraffining or boxing.

If the new cheese gets moldy on the surface within the first few days and before it is thoroughly dry, this proves that the curing room is too moist. The usual remedy is better ventilation.

In a tightly closed curing room filled with new cheese the air will quickly become 90 per cent humidity, or nearly saturated with moisture evaporated from the cheese. Further drying of the cheese surface will then be practically stopped and the mold will have a good chance to grow on the cheese or even on the shelves or walls.

As the air out of doors is usually much less than 90 per cent saturated with moisture in this country, often as low as 30 or 50 per cent, all that is necessary to correct the trouble with mold is to ventilate the curing room. This is usually done during the coolest hours of the day or night by opening a few windows and carefully closing them again before the temperature rises. Wooden shutters over the windows to exclude direct sunlight help to keep the cheese room cool and are needed at many factories in summer.

The paraffining of the clean, well-dried cheese before it goes into the cold storage or cold curing room at the warehouse helps to prevent subsequent growth of mold on the surface.

If the factory curing room is quite moldy, begin ventilating it at night. I would also suggest taking out the shelf planks (which should not be nailed down) and giving them a thorough scrubbing and scalding, drying them well in the sun, and putting them back. Scrubbing the curing room will help to remove the seeds of mold, and keeping the room moderately dry will prevent them from growing. When mold "goes to seed" it usually turns black or some dark color, and the black or colored spots should be most carefully cleaned.

Some people have burned sulphur on a piece of red hot iron in a curing room to prevent mold; but if the room stays damp the mold will grow again after the sulphur fumes are gone. You might wash the shelves with formaldehyde, or chloride of lime, or a number of other disinfectants, but a good, thorough cleaning of the room and sufficient ventilation are the most important means of preventing the appearance of mold on cheese. J. L. SAMMIS.

Wisconsin College of Agriculture.

Curing Hay

HOARD'S DAIRYMAN:—I have recently noticed several articles in your good paper on the subject of curing hay. I have read with interest the article in the issue of June 27th by Edw. Hoverson of Montana.

Mr. Hoverson's method is absolutely correct for his territory and for all of the high, dry altitudes, particularly on this side of the Rocky Mountains. Wonderful hay can be cured in that altitude and in any really dry area if the ground is dry at that time.

However, no set rule can be followed for the making of hay. If some person, even in Mr. Hoverson's territory, would follow his directions when the ground happened to be wet, or if he got into his field a little too early in the morning to bunch his hay or worked in it a little too late at night when he was hauling from the field, he would be very likely to have ashes instead of a barn or a stack in a few days.

That system cannot be safely followed at lower altitudes where there is more humidity in the atmosphere. The cause of spontaneous combustion is moisture on the plant, not in it. By cutting his alfalfa in the afternoon a considerable proportion of the moisture it gathered during the night has been absorbed by the sun and he has a smaller content of moisture in the plant itself. If, however, he cuts it on a cloudy day or even a bright day soon after the field has been irrigated, he is pretty likely to have trouble.

However, what I want to say is that at altitudes like Wisconsin, Indiana, Missouri, and other states, generally speaking, east of the Missouri, this system cannot be safely followed. I have seen the system very successfully followed even in South Dakota, a short distance east of the Missouri, but only when the ground was exceedingly dry and the weather was very hot. I have seen it tried repeatedly in other states when it was an absolute failure. I saw it thoroughly tried in Missouri where the hay was baled the afternoon of the day after being cut and it spoiled. The ground was dry and the day was hot and the hay was not cut until about noon of the day preceding and was not stirred until after the dew was all off the morning that it was baled in the afternoon.

Again, I say there is no set rule for making hay. Conditions in different localities and even in the same localities vary so greatly that judgment must always be exercised.

Virginia. A. E. CHAMBERLAIN

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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A. J. GLOVER, P. C. BURCHARD

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Sept. 14-20—Eastern States Exposition at Springfield, Mass.
Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis
Sept 22-28—Dairy Cattle Congress, Waterloo, Iowa.

Judges at 1924 Dairy Cattle Congress

Announcement is made by the management of the Dairy Cattle Congress that the judges at the fifteenth annual show to be held at Waterloo, Iowa, September 22nd to 28th, will be as follows: Holsteins, R. E. Haeger, Illinois, Jerseys, F. W. Barber, Tennessee; Guernseys, L. S. Wilson, Minnesota; Brown Swiss, J. B. Fitch, Kansas; and Ayrshires, H. H. Kildee, Iowa All of those men are authorities on dairy type and have had wide experience in the show ring

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, D. C., JULY 9—The first problem faced by Dr. C. W. Larson, chief of the Bureau of Dairying, who was appointed as chief of the new bureau on July 2, was to prepare and submit the preliminary estimate of expenses for the bureau's activities for the fiscal year of 1926—that is, the year beginning July 1, 1925.

⚜

The press service of the U. S. Department of Agriculture issued a bulletin the day following the appointment of a chief of the Bureau of Dairying, outlining briefly the work which the bureau would carry on. Particular emphasis was given in this bulletin to the value and importance of research work in the bureau, pointing out that research in the past had opened doors of opportunity to new developments and new sources of profit and service. Special mention was made of the research discoveries in utilization of skimmilk products, in nutrition, breeding, and development of better producing dairy cattle. Mention was made also of the market milk research and study, and then emphasis was placed on the work of introduction, by which research results are carried out and made available to the whole public. This press bulletin has been given wide circulation.

⚜

Charles W. Holman, representative of the dairy industry, sent to the International Institute of Agriculture session at Rome, by the U. S. government, is home. He made a brief report of his trip to the Farm Hands Club luncheon this week. The proposal of the U. S. government that agricultural organizations be given associate membership in the institute did not carry, but a resolution was adopted looking to international organization of agricultural societies with close affiliation with the institute. Some reforms in the administration of the institute were adopted, looking to better and faster statistical information and a resolution was adopted asking for special attention to dairy statistics, internationally. After the Rome meeting, Mr. and Mrs. Holman visited Germany, Denmark, and England, studying farming conditions and the work of the co-operatives. He says the most successful co-operative spirit and enterprises seen were in Denmark. Agricultural co-operation in England is at a low ebb, he states. Economically, that is, measured by the purchasing power of their products in terms of what farmers must buy, he found the farmers in Europe generally better off than American farmers at this time. They were getting uniformly better prices, compared with the prices of their requirements, than American farmers are receiving.

⚜

C. E. Gray of the Golden State Milk Products Co. of California has been spending a few days here. He has been in the East largely in the interest of the casein industry, watching the tariff controversy, and looking out for the future prospects. He states he does not believe that the users of casein are now half as anxious as they were at the time of the high prices for the tariff to be taken off, and thinks there is now a much better understanding of the possibilities of a full supply of domestic casein, at a fair price, if the market is steadied and buying continues on a more even basis.

⚜

Delay in issuing any statement, or in the appearance of the promised "Treasury Decision" as to the interpretation now to be used by the Internal Revenue Bureau in guiding their agents in the enforcement of the "adulterated butter law", leaves the butter industry somewhat at a loss to know just how to proceed. The Tilden case, on close study, is being held to indicate only that 16 per cent of moisture is not an evidence of adulterated butter unless it was incorporated in the butter in some other way than by a standard and workmanlike method of manufacturing the butter. That is, each churning of butter must stand on its own merits; first, as to moisture content, and second, as to the method used in its manipulation. In view of this, and of numerous other angles in the case, there is a growing demand for clarification of the situation either by a decision or by further legislation. The best advice that is being handed out here is, keep the butter *within the state* standards.

How much does it cost a co-operative association to produce butter from its surplus milk? This is one of the questions the U. S. Tariff Commission is getting ready to find an answer to, as the butter tariff question comes up to them to investigate.

"Grandma's Ginger Ale"

Ever chanced to be a-shockin'
When the sun was scorchin' hot?
Have the sweat stand on your forehead
And your throat a sticky clot?
Then look up and see a figure,
Toddlin', bent, and ofttimes frail,
Comin' down along the barley—
Grandma with her ginger ale?

P'r'aps you've drunk your share of water,
Stopped the binder every round,
Drained the water bag in strivin'
To submerge the thirst you've found;
P'r'aps you've just about concluded
That no drink can thirst assail,
When along comes smilin' Grandma
With her pail of ginger ale.

'Member growlin' at the "stickers",
Gettin' peevish at the beard,
Sayin' things about the bundles,
Fingers raw or "binding seared"?
'Member frettin' at the stubble
As in shin it left a trail,
Then forgettin' all these troubles
Sippin' Grandma's ginger ale?

'Member gettin' quite dramatic,
Thinkin' what a life you led,
Sayin' things about the shockin',
Seein' everything in "red"?
'Member bein' tired and dusty,
Mouth all puckered up and stale,
Then reversin' all decisions,
Grandma's brought the ginger ale?

'Member sittin' in the shadow
Of a high-piled, golden stack,
Grandma in her old sunbonnet
With her arm across your back?
'Member drinkin' while the locusts
Hit the tin like fallin' hail?
Never was a time so pleasant—
Grandma and her ginger ale.

'Member when the pail got empty
How you smacked your lips for more?
Every pain somehow had vanished
Every muscle ache and sore;
Now, sometimes, when worldly conflict
Leaves its many pains to wail,
Comes a wish that smilin' Grandma
Might be near with ginger ale.

—R. D. GALT.



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Cow Testing Associations

(Continued from page 7)

pound for fat; the creamery, 38 cents. Milk retailed for 8 cents per quart; butter, 44 cents per lb.—A. G. Elbert.

Allenton—Kohlsville, Wis.: This association is highest in the county and the state for the past three months regarding percentage of quality cows, fat average, and high herd fat and milk average; also 100% in pure-bred sires, alfalfa, balanced rations, Holsteins, tuberculin tested herds, and all members' farms named and registered. The primary object this year is to make this association R. O. P.—365 lbs. fat or more entire average for a year.—V. M. Anderson.

Farmington, Wis.: The cool weather has affected the dairy industry in this section. The need of a small silo for summer feeding is felt. The condensery and creamery paid 47 cents per pound for fat; the cheese factory, 45 cents.—J. G. Stratheam.

Spring Green, Wis.: During the month of June 74 out of 370 cows tested produced 40 lbs. or more of fat each. One herd was tuberculin tested. —A. F. Clump.

Milton—Edgerton, Wis.: A joint picnic of this and the Footesville—Evansville Association was held at which A. J. Cramer gave an interesting talk on summer feeding of grain to cows on grass. The condensery paid $1.84 per cwt. for milk. The creamery paid 42 cents per lb. for fat. Milk retailed for 12 cents per quart.—W. H. Roberts.

Cedarburg—Grafton, Wis.: The average production for the 25 herds was 932 lbs. milk, 36.1 lbs. fat. Fifty tons of bran, at $25.50 a ton, were purchased, also 30 tons of gluten at $34 a ton and 30 tons of oil meal at $43.50 a ton. Cows fed grain with pasture are milking steadily, while cows on pasture alone dropped in milk flow. Market milk sold for $2.24 per cwt. The creamery paid 46 cents per lb. for fat; the cheese factory, 40 cents.—G. Wild.

Farmers' Cattle Judging Contests

A continuous cattle judging program for farmers from every state is being arranged for the National Dairy Exposition at Milwaukee, September 27th to October 4th. Coupled with the contest will be dairy cattle demonstrations by expert judges of cattle. These two features will afford a liberal education to every man who is a buyer of dairy cattle and wishes to be informed on how to select good ones.

Another attraction for farmers will be the exhibit of grade cows from cow test associations, all to go on the auction block during week of the Show. These cows will all be exhibited in the regular classes of the Show and judged by the regular judges of the Show, their health certificates entitling them to enter any state and their record of production certificate officially signed will be attached to the cows.

Milk Consumption In England

According to the British Ministry of Agriculture, the consumption of milk in England and Wales amounted to 11½ billion pounds. The estimate included the following items: 7,300,000,000 lbs. milk for human consumption; 2,000,000,000 lbs. milk made into butter and cheese on farms and in factories; 1,250,000,000 lbs. milk made into cheese on farms and in factories; 300,000,000 lbs. milk made into condensed milk; 400,000,000 lbs. milk made into cream and other miscellaneous products; and 250,000,000 lbs. milk is put down as "allowance for waste". No estimate is included in the total of 11½ billion pounds for milk fed to calves.

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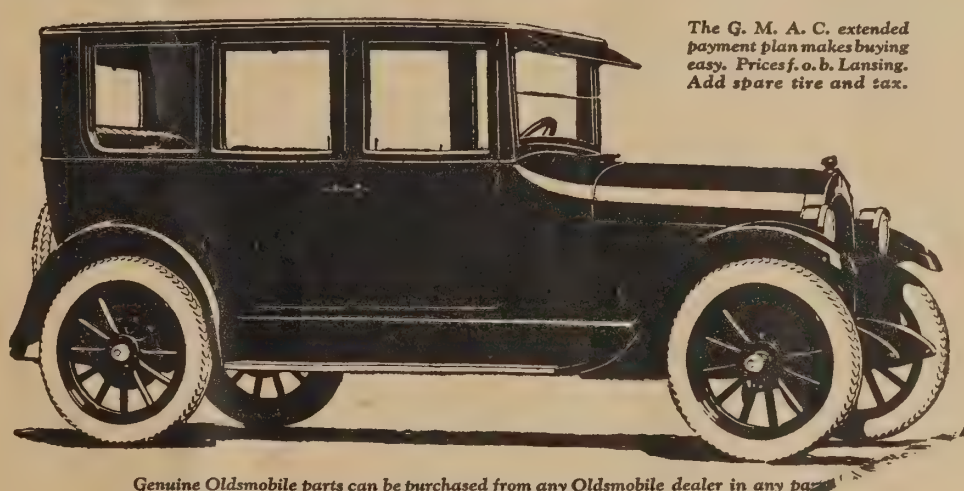
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Association Members Buy Pure-breds

At the recent National Holstein Sale held at Richmond the largest group of buyers were the members of Virginia cow testing associations. Seventeen members in eight of the fourteen associations in the state purchased a total of 48 animals. They paid a total purchase price of $13,140 or an average of $274 per head.

The cow testing association members were especially strong buyers of good young stock, which were desired for foundation purposes. Fifteen head purchased were yearlings or under, thirteen head were two-year-olds, and four were three-year-olds. Even with this preponderance of young stock the average purchase price was better than the sales average which seems to indicate that they were after the best.

That cow testing association members are realizing the value of having good sires is shown by the fact that the three highest price bulls sold and eight of the total twenty sold in the sale were purchased by members of Virginia cow testing associations.

It was very gratifying to see so much of this excellent stock stay in Virginia, especially with cow testing association members where there will be an opportunity to measure the improvement that this stock will bring about in these herds. Several other of the Virginia buyers will probably also soon take up the cow testing association work.—L. P. EMMERICK.

Nebraska's new champion Holstein cow for butter production in one year as a junior two-year-old is Jennie Segis Sylvia Waldorf of the Woodlawn Dairy herd at Lincoln. Her record is 20,232.9 pounds milk containing 764.93 pounds butterfat, equivalent to 956.1 pounds butter, according to the Advanced Department of The Holstein-Friesian Association of America.—Holstein-Friesian Ass'n of America.



LUCY THOMPSON

For the Sweet Tooth

My last can of apple butter is gone and all I have left in the way of "spread" is a couple of small glasses of jelly. Naturally I am looking forward to getting things filled up again for I find that a good supply of jellies and the like saves me a good deal of dessert making, especially on days when there is fresh bread.

I don't think any of us hesitate to tackle anything in the way of jams, conserves, and butters but when it comes to jelly it is different on account of the eccentricities of that thing called pectin that has to be in fruit juice if the jelly is to set. A certain amount of acid has to be there, too, or else the pectin won't act and many an hour have I wasted trying to make jelly out of somethink that simply won't jell and I might have saved a lot of work if I had known any test. It would be all right and easy if we always wanted apple jelly or something of the kind; it is the thirst for variety that gets us into trouble if we have no chart to steer by.

The Michigan Agricultural College has made some tests and has published them in language so easy to follow that they don't seem a bit technical. The wood alcohol test for pectin is this: Mix one tablespoon of cooked juice with one tablespoon of wood alcohol (this is a poison) and if a large amount of pectin is present it will collect in a mass in the bottom of the spoon; if only a small amount it will be seen in small particles. You must watch this test carefully as the alcohol will dissolve the pectin in a short time.

The Epsom salts test is this: Mix together one teaspoon cooked fruit juice, one-half teaspoon sugar, and one-fourth teaspoon Epsom salts (all level measurements). Stir until all are dissolved and let stand five minutes. If the mixture sets into a jelly in this time it is a good jellying juice.

A large amount of pectin calls for a large amount of sugar, nearly or entirely, equal parts of sugar and juice. Plenty of pectin but not much acid is likely to yield a tough jelly as in the case of quince but quince mixed with apple makes a jelly of fine consistency and flavor.

The juices that jelly most readily are crabapple, apple, half-ripe grape, raspberry, blueberry, gooseberry, and currant. Any one of these may be combined with others that jelly less readily such as strawberry. peach, pear, pineapple, and cherry.

Pectin may be made from apple or orange. For the former take one pound of apple, skin and cores, juice of one lemon, one quart of water. Boil one-half to three-quarters of an hour, let drain through cloth bag, bottle juice, and put away. Add this to your other fruit juice until you get a good pectin test.

Next winter when you want a little variety with your meat you will be glad if you have made some mint jelly. For this add some crushed mint leaves to apples while cooking, and put a few drops of green coloring in the juice after it is strained. Be careful not to get too much of this. Mint jelly not only tastes good but looks beautiful. Don't buy a whole bottle of expensive coloring but get a few green mints at the candy store and boil them up in a little water.

If you are a very particular jelly maker you will drain the juice through two thicknesses of cheese cloth without pressure. This makes a sparkling, clear jelly. Then you can boil the pulp in a little more water and squeeze it this time making jelly that is good but not of "company" quality. Then you can take the pulp and make it into a good fruit butter.

Most of us do not make any distinction between jams, marmalades, butters, and conserves because we usually take what we have on hand and make it up in the most convenient way and that is all right as most of us are not professionals. If it turns out quite thick we may call it marmalade and if it has nuts in it, it is conserve. That is near enough for practical purposes.

Plum makes one of the best and richest conserves. For this take:

6 lbs. plums, 2 oranges sliced, 1½ lbs. large raisins, seeded, ½ lb. nut meats, 3 lbs. sugar.

Wipe oranges clean, cut in quarters, and slice quarters thin, removing all seeds. Let stand in water to cover over night. Cook plums without water till soft and press through sieve. Add oranges (cooked till tender) and raisins to the plums and sugar and cook till the mixture thickens. Add nuts near the end of the cooking.

For rhubarb conserve take:

2½ lbs. rhubarb, 3 lbs. sugar, ¼ lb. nut meats, 2 oranges or ¼ lb. candied peel, grated rind and juice of two lemons.

Prepare oranges as above, chop rhubarb fine, add sugar, lemon juice and rind, and put to cook. When the sugar is melted and the mixture is boiling throughout add the nut meats chopped fine. If orange peel is to be used instead of oranges, put it in with the nut meats and cut it fine. Cook about thirty minutes.

The Baby's First Year Clothing

It is nearly always the first baby who suffers from too much in the way of lace trimming, fancy bonnets, and beruffled dresses. After a mother has been once through the grind of making and keeping up such an elaborate outfit she usually decides to put her next baby into the simplest things possible.

Only one mother I know had the courage of her convictions with her first born. She knew that the place for a baby the first year is mostly home in bed and that dressing up an infant only torments it. I helped her with the whole outfit and, except for one little dress to be baptized in, there was nothing in it fancier than a little feather stitching on the slip hems.

A little mother was telling me the other day that her baby had just celebrated his first birthday and that in honor of the occasion she had dressed him in his best and given him a party. He got so excited at seeing the people and hearing all the other little babies crying that he worked himself into a case of hysteria.

"That night was the first time I ever had to rock him to sleep," she told me, "and I was worried to death." No wonder. Some doctors think that an experience like that is enough to affect a child's nervous system permanently. But to get back to clothing.

A child specialist has recently worked out the following list of clothing for the first year and to me it seems very practical:

1. Straight flannel bands. These are worn only the first weeks until the cord dressings are off, and are now often omitted, the gauze bandages being used instead.

2. Knitted bands with shoulder straps. These should be straight sided and not barrel shaped. Two small (size 1) and two larger (size 2) should be provided.

3. Shirts, light or medium weight, part woolen or cotton in warm climates, with long sleeves and high neck. From two to four are needed.

4. Diapers of birdseye cotton. Five dozen is the least number that will allow for washing only every other day. Several different sizes should be made, such as 18x36, 22 by 44, and 26x52, the largest size.

5. Stockings of part wool or booties long enough to reach over the knee. For changeable or cold climates at least three pairs should be provided; in warm climates none may be needed.

6. Slips or dresses of white washable cotton. Eight or ten slips should be made unless they are to be washed oftener than once a week. Gingham rompers may be used at the end of the first year.

7. Nightgowns of cotton flannel. These save the slips but are not necessary for the first six months. Three or four nightgowns should be made for the older infant.

8. Petticoats of flannel without sleeves. At least three are needed in cold weather.

9. Flannel kimona or sack. One or two are desirable in order to give additional warmth in cold weather.

10. One or more soft woolen knitted shawls, one yard square, or one by one and a half yards. A square of flannel may be substituted.

11. Baby bunting or outdoor coat and mittens in cold climate.

12. Muslin cap or knitted woolen cap or hood.

All day clothes should be removed for the night's sleep just as in the case of a grown person but an infant will wear the same number of clothes night and day. He will sleep better if he is undressed and laid out on something where he can kick vigorously before being put to bed. A gentle rubbing also promotes quiet sleep.

A sleeping bag made of material suitable to the weather is about the only thing that will keep a lusty baby covered at night and a conscientious mother's rest will be very fitful if she is imagining that the baby has kicked himself out into the cold.

Except in very warm weather it is best to keep him in stockings or booties that come over the knee and when he begins to creep to put on moccasins of felt or soft leather. It is

(Continued on next page)

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Miscellaneous Fashions



No. 2118—Neat and Attractive Porch or Morning Dress. Cut in 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3 yards 40-inch material with 3¼ yards of braid.

No. 5000—Long-Waisted Dress. Cut in sizes 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅝ yards of 36-inch material with ⅜ yard 36-inch contrasting.

No. 1702—One-Piece Slip-On Dress, with pleats laid at sides of skirt. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3⅜ yards of 36-inch material with ¾ yard 36-inch contrasting.

No. 2120—Jaunty Summer Style. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3⅛ yards 36-inch material with ¾ yard 36 inch contrasting.

No. 2037—Stylish Two-Material Dress. Cut in sizes 34, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 2 yards 36-inch material with 1⅜ yards of 36-inch contrasting and 2¼ yards of ruffling.

No. 1911—Men's and Boy's Shirt. Cut in sizes 12½ 13, 13½, 14, 14½, 15, 15½, 16, 16½, 17, 17½, 18, 18½, and 19 inches neck measure. Size 15½ requires 3½ yards of 36-inch material.

Fashion Magazine

From the front cover of our Spring and Summer Fashion Magazine right on through the book, you will see all of the styles which will be popular during the coming season. Styles for morning and afternoon wear as well as those needed for the more formal occasions. And cute styles for the kiddies. There are dressmaking lessons for the beginner, and charming styles which can be made in a couple of hours even by one who is a novice with the needle. Also photos of the most popular Broadway, New York, actresses. So settle your dress problems by sending 10c today for our new Fashion Magazine. You'll save dollars by doing so. Address Fashion Department, Hoard's Dairyman, Fort Atkinson.

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most important for the later shape of the child's foot that his shoes and stockings be well-fitted and plenty long. Any mother who has had any experience with corns, bunions, or fallen arches will never want to pass them on to her child.

It is not safe simply to dry a diaper and use it again as it is likely to cause a rash on the delicate skin. The best way to wash diapers is to rub them in hot suds with mild white soap, boil, rinse until all soap is out, and dry in the sun if possible. Woolens must not be washed in hot water as it stiffens and yellows them. Lukewarm water for both rinsing and washing is best for these.

Diapers should be cut twice as long as wide with four inches allowed for shrinking and hem. Straight bands are made by tearing three-fourths yard of material into strips six inches wide. They are not to be hemmed. Shirts may be made from pieces of underwear.

Draw strings at neck and sleeves do away with all need of buttons on the first simple things and make them adjustable to the baby's growth. A fold run in over the shoulders may be let out as the baby gets larger. The first slips are 20 or 22 inches long while the nightgowns are 30.

If all the clothing is opened all the way down the front the job of dressing is simplified.

The dress may be spread out, petticoat on top of it, and shirt on top of that with shirt sleeves inserted in dress sleeves. The baby in band and diaper is laid on these on his back, arms put in sleeves, and the three garments fastened down the front quickly and easily. Tape ties are often used for fastenings.

Household Suggestions

If you have some flavorless canned plums, as I had, or some flat tasting apples, buy a pound of dried apricots, soak and stew them until they are tender, then mix with the plums or apples in the proportion of one quart of canned fruit or sauce to one-half pound of apricots and use in pies. My family is enthusiastic in its praise when I serve this dessert. The apricots may be used in the same proportions to make jam when the supply runs low or is limited to one or two varieties.

⚜

I have several times read inquiries from women who had difficulty in finding graham or whole wheat flour and when they did find it, deplored its comparatively high price. The answer is, "Go to the middlings bag, thou farm mother." If you like it coarser, add bran from the bran sack in any proportion that pleases you. I like it about one of bran to four of middlings. Why feed all the vitamins to the cows?

⚜

As the rhubarb season approaches remember that a pinch of salt—not too much—will save half the sugar. This applies to any acid fruit—plums, oranges, or berries.

Cookies

1 cup melted butter or other shortening, 1 cup molasses, ½ cup brown sugar, 1 cup water or coffee in which is dissolved 1 teaspoon soda, 1 teaspoon salt, spice if desired, 1½ cups middlings. Flour to make soft dough. Mix, roll, cut out, and bake in a quick oven.

Bran and Middlings Recipes

2 cups middlings, ½ cup bran, 2 cups wheat flour, 2 teaspoons salt, ½ cup molasses, 2½ cups sour milk, 2 eggs (1 will do), ¼ cup sugar, 1 teaspoon soda in milk, 2 teaspoons baking powder in flour. Mix thoroughly. Makes two small loaves or eighteen muffins.

New York. C. N. HALE.

Friendly Talks For Farm Folks

That wife is a prize who insists that the harvest money shall go for a tractor, a harvester, and a dependable farm truck. And the following season, if the husband of such a wife is the sport we think he is, he will be equally emphatic on insisting that the surplus buy a new fur coat, hardwood floors, and maybe a little coupe—all for the Missus. The year that everything goes out and nothing comes in they can share alike with the best grace to be mustered.

⚜

When Mrs. Arthur Preston wants to reward her husband for his many loving kindnesses to her, or, more likely tease him to give her fifty dollars out of the coming dividend, she goes into the kitchen and there concocts a thick slice of home-cured ham baked in milk so that it literally melts in a man's mouth; a pan of golden-brown corn muffins, a sight better than any Arthur's mother ever made in her life; potatoes baked in their jackets,—said jackets cunningly slit and a big lump of fresh June butter inserted in each; a banana pie with a frosting of snow-like sugar covering the toothsome top; and finally a strawberry shortcake of such tenderness and incomparable goodness that Arthur, after his meal, just straightens out in the chair and is as wax in the hands of the best cook in Cattaragus County. Indeed, as the wise man said, the way to many a man's pocketbook is via his stomach.

⚜

Puzzle: When it comes to the end of a perfect day and the grass is down making perfect hay, and a thunder cloud appears in the West, who ever cried, "It's all for the best?" Answer: No one.

⚜

It cost Simon Bagg three or four hundred dollars to paint up his disreputable old farm buildings this year and, as he proudly says, darned if it ain't worth it.

⚜

A wire from the headquarters of the Mosquito League, Inc. assures us that owing to the continued damp and rainy weather this year, nine hundred-billion new members have joined this powerful organization and are ready in toto—not a non-pooler among them—to buzz, pester, heckle and bite everybody on this green footstool regardless of condition or color. This will be deep and gratifyng news to all those humans who contemplate picnics and outings in the great outdoors this season.

⚜

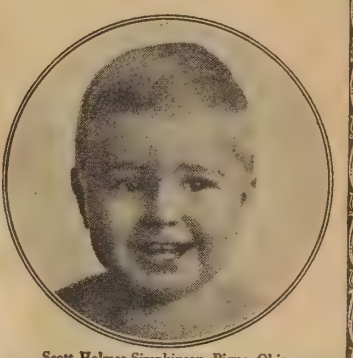
At our farm there is a new pony which is turned out with the regular team—a mare who has never had a colt of her own, and old Gus, a heavy horse. Betty, the mare, has always had rather a ticklish disposition like some others of her sex, but she has always been seemingly devoted to good old Gus who forgives her time and again for sly nips and bites to which she treats him a million times a day. Well, out in the pasture Betty and the pony discovered each other and Betty immediately adopted the pony—who is six years old himself—for her own. She won't let harmless old Gus come within a gun's shot of them—chases him about the pasture, kicks him spitefully if he as much as looks in the direction of the pony, and withal acts just like a fighting cow with a baby calf to defend from the world at all costs. The mother instinct in Betty is evidently going strong, but why she should take it out on her inoffensive team-mate is hard to understand. But some women are like that.

New York. HELEN S. K. WILLCOX.



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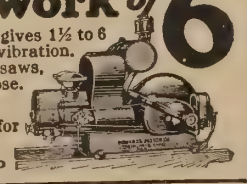


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SALE ANNOUNCEMENTS

July 30—Guernseys. Dispersal, George P. Zouck, Elkton, Md. Louis McL. Merryman, Sparks, Md., Sale Manager.

Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades. Dassel, Minn. A. B. Rayburn Mgr.

Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.

Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wis.**

DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agriculture)

Cheese markets were fairly firm with storage situation continuing to hold center of attention during week of July 5. Wisconsin Cheese Boards both showed price reductions averaging a cent at sessions toward close of week.

The average wholesale prices on American cheese, style Twins, for the week ending July 5, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending		
	July 5 1924	June 28 1924	July 5 1923
	Cts.	Cts.	Cts.
New York	20.6	20.3	24.1
Chicago	18.7	18.7	21.7
Boston	21.4	21.2	25.3
San Francisco	19.5	20.0	23.7
Wisconsin Board	18.3	18.7	20.9

The receipts of cheese at these markets were 5,799,247 lbs. for the week as compared with 5,045,312 lbs. last week and 5,958,021 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agriculture)

Butter markets were unsettled early in the week ending July 5, but firmer at the close. Trading was fairly active including buying for immediate consumptive demand and for storing. Production reports favorable. Imports of small consequence.

The average wholesale prices on 92-score butter for the week ending July 5, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending		
	July 5 1924	June 28 1924	July 5 1923
	Cts.	Cts.	Cts.
New York	41.2	41.9	37.7
Chicago	38.7	39.4	37.5
Philadelphia	41.5	42.1	38.7
Boston	41.2	42.0	38.4
San Francisco	38.5	39.6	41.2

The receipts of butter at these markets were 19,647,153 lbs. for the week as compared with 21,945,284 lbs. for last week and 18,143,774 lbs. a year ago.

Butter Prices for June

The following table is compiled from daily quotations by the U. S. Department of Agriculture and covers the average wholesale prices during June on 92-score butter (extras) at four of the principal markets, together with the receipts and storage holdings at these markets:

	Av. price		Receipts	
	1924	1923	1924	1923
	cents	cents	tubs	tubs
Chicago	39.7	38.8	446,751	430,019
New York	41.5	38.9	408,773	428,233
Boston	41.5	39.9	216,125	191,978
Philadelphia	42.0	39.9	141,153	121,682
Total receipts for			1,212,802	1,171,912
Total receipts since Jan. 1			4,642,673	4,495,309
Storage holdings July 1			618,554	560,996

Ninety-score butter averaged 37.8 cents for June in Chicago, with centralized butter at this market selling for 39.1 cents. Jobbers' prices on extras sold to retailers averaged 41.7 cents in Chicago and 45 cents in New York.

Wisconsin May Butter

(Wisconsin Department of Markets)

The following is an average report of the operations of 100 co-operative creameries in Wisconsin for the month of May, 1924:

No. of creameries	Price paid for fat	Ave. price rec'd for butter	Ave. overrun	Ave. am't. fat rec'd
	Cts.	Cts.	%	Lbs.
2	45	38.5	22.3	24,180
7	44	39.2	23.9	26,745
16	43	37.6	23.9	53,538
17	42	37.2	22.9	33,406
18	41	37.1	20.9	36,907
14	40	37.8	22.6	35,117
9	39	36.9	23.3	15,082
7	38	36.1	21.1	12,952
3	37	35.9	22.6	58,580
2	36	36.3	21.5	22,194
100				31,870

Milwaukee June Milk

The following prices are determined on for the month of June for members of Milwaukee Co-operative Milk Producers:

For the portion sold as fluid, $2.85 per cwt. for milk testing 3.5% fat; and for the portion manufactured, $1.46 per cwt. Four cents added or subtracted for each one-tenth of one per cent variation from 3.5 fat test.

Fifty-two per cent of the total receipts was sold as fluid.

MILWAUKEE, July 15—Butter—Creamery, extra, tubs, 38½c; standards, 38c; extra firsts, tubs, 37@37½c; firsts, 34@35c; seconds, 30@36c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 24½@25c; ordinary firsts (standard cases), 24½@25c; miscellaneous lots, shippers' cases returned, candled, 21@22c; seconds, dirties, 19½@20c; checks, 19½@20c.

Cheese—American full cream, Twins, 17½@18c; Young Americas, 18@18½c; Longhorns, 18½@19c; Daisies, single, 18@18½c; American, 32c; Pimento, 34c; Swiss, 42c; special market Brick, fancy, 16@16½c; Limburger, new, 22@23c; Swiss, blocks, 26@28c; loaf, 32@34c; imported Swiss, loaf, 44@48c.

CHICAGO, July 14—Butter—Receipts, 22,445 pounds. Creamery, extras, 38¾c; standards, 38½c; dairy, firsts, 36@37c; seconds, 33@35c.

Eggs—Receipts, 34,550 cases; ordinary, 24@24½c; firsts, 25@26c.

Cheese—Twins, 19c; Young Americas, 20c.

FOND DU LAC, Wis., July 12—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 17¾c; Twins, 17½c; single Daisies, 18c; double Daisies, 17¾c; Young Americas, 18c; Longhorns, 18¼c; square prints, 18½c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange July 12: Single Daisies, 16½c. On Farmers' Call Board, July 12: Twins, 16½c; single Daisies, 16¾c; square prints, 17½c.

NEW YORK, July 14—Butter—Firm; receipts, 8,505 tubs; fresh supply, 57,537 tubs; creamery extras, 40¾c; specials, 41⅛@41¾c.

Eggs—Dull; receipts, 13,243 cases; fresh supply, 60,246 cases; white, fancy, 40@42c; fresh firsts, 26½@32c; western whites, 27½@29c.

Carload Prices of Hay, Straw, and Feed, July 5, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	32.00	30.00	29.00	25.50	.....	29.00	28.00	27.00	24.25	26.50	20.00	25.50	....	19.50	
No. 1 Clover, mixed	21.00	29.50	.....	21.00	.....	.....	.....	.....	21.00	.....	17.00	..	.....	17.00	....
No. 1 Clover	....	....	....	20.00	.....	.....	.....	.....	22.00	19.00	16.00	23.50	.....	14.50	....
No. 1 Alfalfa	....	....	....	.....	.....	32.00	30.00	25.00	24.50	28.00	20.00	....	18.50	18.50	....
Standard Alfalfa	....	....	....	.....	.....	29.00	28.00	22.50	....	22.00	18.00	24.00	15.50	15.00	....
No. 2 Alfalfa	....	....	....	.....	.....	27.00	.....	19.50	22.00	17.00	15.00	....	12.00	12.75	.....
Oat Straw	13.50	.....	16.00	16.00	.....	.....	.....	.....	12.00	11.00	.....	.....	8.50	.....	.....
Feed—Bagged															
Wheat Bran	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring	30.00	.....	29.00	27.50	.....	31.00	.....	.....	26.50	23.50	21.00	.....	.....	.....	.....
Soft Winter	31.50	.....	31.00	29.50	.....	31.50	.....	25.00	26.50	.....	22.00	22.00	.....	20.00	.....
Hard Winter	....	.....	30.00	27.50	...	31.00	.....	24.50	26.50	24.00	.....	22.25	20.00	20.00	.....
Wheat Middlings		....							.....	.....	.....	.....	.....	.....	.....
Spring (Standard)	30.50	....	30.50	29.50	.....	33.00	.....	.....	29.50	26.00	23.00	.....	.....	.....	.....
Soft Winter	36.75	.....	36.00	33.00	.....	34.00	.....	.....	30.50	.....	.....	27.50	.....	25.00	.....
Hard Winter	.....	....		33.00	.....	32.00	.....	.....	30.50	.....	.....	.....	26.00	25.00	.....
Wheat Millrun	29.00	.....	28.50	.....	.....	31.00	.....	.....	.....	.....	22.50	.....	.....	23.00	.....
Rye Middlings	.....	.....	28.00	26.00	.....	.....	.....	18.50	.....	.....	.....	.....	.....	.....	.....
High Protein Meals									46.50	44.00	41.00	44.00	47.50	48.00	.....
Linseed	47.25		47.00	46.50	.....	.....	.....	.....	47.00	49.00	48.50	46.00	.....	.....	.....
Cottonseed (41%)	49.50	.....	50.00	51.50	.....	.....	.....	43.00	43.00	44.00	44.75	43.00	.....	.....	.....
Cottonseed (36%)	44.50	.....	46.50	46.75	.....	37.50	.....	38.50	.....	45.00	45.00	45.00	45.00	45.00	.....
Tankage (60%)	....	.....	.....	.....	.....	.....	.....	.....	26.50	25.50	26.00	24.00	24.00	21.50	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	.....	.....	.....	25.50	39.30	36.40	39.50	.....	.....	.....	.....
Gluten feed	43.55	.....	43.50	38.30	.....	.....	.....	.....	39.00	37.50	.....	36.75	35.00	.....	.....
Hominy feed (white)	41.50	.....	41.50	.....	.....	37.50	.....	.....	39.00	37.00	35.00	....	35.00	.....	.....
Hominy feed (y'llow)	41.50	.....	41.00	.....	.....	37.50	.....	.....	39.00	38.50	37.00	.....	.....	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	.....	40.00	.....	.....	.....	.....	.....
Dried Beet pulp	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

From An Ex-cow Puncher

HOARD'S DAIRYMAN:—In your paper of May 9 about injury to hides from hunters shooting dairy cows, you also say that sounds like a fairy tale. It sure don't to me. I think if you investigate you will find that the cattle that have their hides filled with shot come from Montana and Wyoming and all free range states. The homesteaders will file on a piece of land and put in a patch of grain with no fence around it and try to keep the range cattle and horses off with their shotguns. As I lived in Montana for several years I know what I am talking about as I have had stock shot and killed. The deputy sheriff told me he picked a match box full of shot from a horse that had been killed and there were several more horses in the bunch that were shot so badly they could hardly walk. The man was arrested but they could not convict him as they did not see him do it.

Any amount of stock was shot and killed where I came from. Yes, I came from the wild and woolly Montana. Have saddled and rode many a wild horse and steers and cows or anything that grows hair. Now I am in Minnesota dairying and never owned a dairy cow till I came here or never sold cream. But I have a good herd of dairy cows and am getting along fine. My cows made me $15 a month per cow last winter. I expect them to go $20 or better per cow next winter; in fact, I am going to be the high man at the creamery if nothing prevents.

AN EX-COW PUNCHER.

Get of Sire—County Herd

HOARD'S DAIRYMAN:—Among the different subjects that have been before the public for discussion, through your columns of O. B. B., the past winter, all of them have furnished food for thought, but I believe we can re-open one which will bring together more friends and interest breeders everywhere.

The "Get of Sire Class" was discussed by some breeders and dairymen in every state, with the exception of two, and after reading them all, the old rule for exhibiting a get of sire class still stands good. You have got to pick them according to who is doing the judging.

Last fall I carried two entries in that class and only once were the young stock placed above the matured stock. So far as to agree on a definite class, age, etc., for said class, we have first got to get the different judges to all follow the same principles. Until they do, we have to run a gambler's chance. I have noticed the same judge place a fast class without a mistake and next week he could not judge a slow class without making some awful mistakes. But he may not have been to blame. There is no judge that can judge three or four different breeds in one day without making some mistakes when each and every class has from two to nine or ten entries. So, therefore, let the different fairs provide more judges and give the judge more time to present and explain his reason for his awards.

As proficient showmen, we usually know how the placing of the different classes will be the day that entries close and have got the money figured up to the fraction of a dollar, but if the judge is pushed for time and is judging three or four breeds the same day, you never can tell where the blue ribbon will fall.

Most of the writers in discussing the get of sire class, expressed a desire to encourage more and larger exhibits. I would like, therefore, to see an open discussion in Hoard's Dairyman's O. B. and B. columns on the following subject: Should we encourage or discourage county show herds? Personally, I believe that we should bar a county herd selected from the local county fairs. I believe the day is close at hand when the county herd is a thing of the past. What show has a small breeder with 25 to 40 head or less when he goes up against a county show herd? None. He realizes that and stays at home. And probably chances are that he has got one or two head in his herd that would be of great honor to the breed if they were exhibited at the State Fair and National Dairy Show.

Hope to see some one open a discussion on the subject, A County Pick Show Herd.

THEO. BLOOMQUIST.

Criticises Mr. Ward's Remedy

HOARD'S DAIRYMAN:—I've been a reader of Hoard's Dairyman for several years and never saw an article such as Mr. Ward's in May 30th issue, as to his remedy to improve farm conditions. I believe he is not a broad minded farmer. In the first place, let down immigration bars and let in some of those Northern Europe farmers to increase production. What are you going to do with that increase? The country is oversupplied now. The western farmers have gone broke. They can't get cost of production for their wheat. If it was not for the tariff wall, thousands of bushels would come down from Canada. What would the American farmer do if he were not protected. And, on the other hand, the dairy farmer is not getting more than a living. There are at present thousands of pounds of butter coming from Australia and Argentina in spite of high tariff. If those farmers can produce a pound of butter and ship it to New York and make money, what would the American farmer do if it were not for the tariff wall?

Mr. Ward speaks of the labor shortage. I'm a hired man, work twelve hours a day and get $50 a month. Five years ago I hired out with a farmer for $50 a month. This man was very nice at first but it grew bad and then worse; after I was there a few months the two of us were milking 34 cows. After a while I was milking them all alone. I started to milk at 4 a. m. and went to breakfast at 7 a. m. I had to skim the milk, feed a lot of calves and pigs, and take care of four horses. I started milking again at 4 p. m. and kept working until all was done, the way I would do it for myself. I would see the boss once a week or so and finally got tired out and quit. This man went all over town to get a man to take my place but he couldn't find one, and there were scores of men out of work. Do you know why he couldn't get a man? He didn't know what a hired man was. The farmers could get all the help they want if they knew how to use it.

Mr. Ward wonders if co-operation will work. I'm not a union man but would like to ask Mr. Ward if the railroad brotherhood works. I'll say it does and all other unions work as well. They set a price and get it, otherwise it would stop all transportation and the railroad owners would lose money. If the farmers would co-operate, act as one, and set a price, they would get it because people must eat to live. Of course, they would need high tariff walls to keep foreign produce out.

I believe Mr. Ward is an importer. In all the letters he writes, the tariff wall is in his way. In the O. B. B. columns he contradicts himself as to the city man's wages; everything kept pace with his wages except farm products. Well, why don't you co-operate, Mr. Ward, and make high wages, too?

Amherst, Mass. P. W. V.

QUALITY COMMANDS THE BETTER PRICE

It pays the producer of cream and eggs to sell according to grade.

The man who handles his cream and eggs in a slipshod manner, without giving attention to cleanliness, flavor, feeding, cooling, freshness, etc., cannot expect the same price that is paid for high quality.

If the eggs and cream you sell to the shipper enable him to comply with the grading requirements of the Chicago Mercantile Exchange, the shipper can pay you more for them.

SELL YOUR BUTTER AND EGGS ACCORDING TO GRADE

There is a market for all eggs and cream—good and inferior—but it is poor policy to pull the good quality down to the level of the inferior by mixing them together.

Separate your best run from the rest—sell the best for the price that quality commands and the rest for what it is worth—and you will have more money in the long run.

Selling on the basis of grade is in keeping with the general policies of the Chicago Mercantile Exchange—whose spot call market, future trading market, grading rules, and strict regulation of all transactions having to do with the distribution of your products make it the great merchandising center for this important industry.

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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

On Lake Mendota's Shores

The shades of night were falling fast. In a circle around the camp fire sat a hundred boys and girls. They listened eagerly as Chief Heap Big Heart Brown, standing in the center of the circle where the fire shadows danced across his reddened face, told them fascinating tales of Indian lore.

"In this grove where you are now sitting, the Indian tepees were pitched. Here the Indian children romped and played. Here the braves made their bows and arrows with which to hunt the fleet-footed deer, shaped and hollowed out their canoes, planted their maize, and fished in the lakes. On the shores of the several lakes of Madison were many Indian villages."

Chief Heap Big Heart Brown then recited Indian legends concerning the creation, following which birch torches were passed about and lighted at the fire.

"To you, from eager hands we throw
The torch. Be yours to hold it high!"

Such were the Sunday night services held at the State Club Camp for Wisconsin's 4-H champions at Madison, June 20—24. Sunday being a holy day was celebrated as such, beginning with a sunrise breakfast in the boys' camp on the shores of Lake Mendota, followed by attendance at church; in the afternoon, a trip to the zoo; and in the evening, a band concert, and ending with the Indian ceremony pictured above.

About a hundred and ten boys and girls, including several leaders, representing twenty-three counties in the Badger State, attended the annual club short course. Among this number were more than a dozen Hoard's Dairyman Juniors, prominent among whom was Orland Baumgartner, for seven years past a member of our club. Orland has attended five consecutive annual club weeks, and expects to take up the four-year course at the Wisconsin College of Agriculture next fall. Washington County had the largest representation with fifteen.

A certain portion of the program for the course was devoted to knowledge. The boys received instruction in corn culture, animal husbandry, poultry husbandry, and grain judging. The girls received instruction in personal sanitation and health, and in clothing. Another educational feature of the program was a trip through the Forest Products Laboratory. Instruction was given by the college specialists.

Just for fun—there were many numbers on the program of this nature. Saturday evening a program was held in Agricultural Hall with 4-H club movies, a canning club demonstration by the 1923 Wisconsin champion canning team composed of Unis and Roma Horn. At this time also, acts in magic by Mr. Edward Swain kept the boys and girls mystified. Monday afternoon occurred the annual boat excursion around Lake Mendota. In the evening the boys and girls were entertained at the Orpheum Theatre by the management, and The Wisconsin State Journal. Tuesday afternoon they were conducted on a sight seeing tour through Wisconsin's two most wonderful buildings, the state capitol and the historical library.



OFFICERS OF STATE SHORT COURSE

Left to right, George B. Price, secretary-treasurer; Marie Ehmann, director; Roma Horn, president; Robert Love, vice-president.

One of the features of the course was a splendid talk by George B. Price, state poultry club champion in 1922 and 1923, who told all about his trip to the National Club Congress at Chicago last fall. The achievements of George Price, you will recall, have been mentioned on the Junior Page before. At the election of state officers which followed George's talk Monday morning, he was honored by being elected secretary of the state organization. Other officers were Roma Horn, president; Robert Love, vice-president; Marie Ehmann and Horace Fowler, directors.

Live stock judges had an opportunity to try out their skill in a dairy judging contest. Grain judges had the same opportunity in the corn judging contest. Winners in the dairy contest were: Charles Easton of Dane County, first; Harris Sterman of Washington County, second, Vroman J. Orth of Dane County, third. There were nine boys who had a perfect score in the corn judging contest. In the competition to determine the winners Earl P. Fonk, Racine County, was declared the winner; Fred Haldeman, Washington County, second; Robert Thomey, Kenosha County, third; and Victor Buvialow, Green County, fourth.

Philosopher Phil Says

Did you ever hear of the little red dwarf who lives in a cave in the side of a hill? On a Sunday morning not so long ago a preacher told all about this queer little creature in his Junior sermon.

Now, this little red dwarf has many messengers at his command which he sends out every day. Sometimes they are good messengers and bear good tidings. Sometimes they are not so good. Sometimes the bad messengers go out and never return. The cave is guarded by two shining white gates. On the hill is a radio station and the little red dwarf sends out messages from there, too.

If you have never seen this little red dwarf look in your mirror and open your mouth and see the little red dwarf who lives in a cave in the side of a hill guarded by two shining white gates. What kind of messengers does your little red dwarf send out?

How I Won a Showman's Cup

I got my first calf in June, 1919, when I was 13 years old.

After she freshened in January, 1921, I milked her four times a day and made a seven-day official record, which was 17 lbs. of fat. I then consigned her to the state sale at Waterloo in hopes I would get a better calf. She sold for $225 and I then bought a better one at that sale. She was six months old and I paid $265 for her. She was a very good individual. I still have this heifer and her two calves.

The next year my father took four head to the Fayette County Fair. I fed them during their fitting period and took care of them at the fair most of the time. This gave me more experience in showing cattle.

Then in February, 1923, I bought a calf sired by Tritomia Pietertje Ormsby, the 1921 National grand champion bull that dad owns. Her name is Tritomia Pietertje Lass. During the fitting period, she was given skimmilk and a mixture of two parts ground corn cob meal, two parts ground oats, one part bran, and one-half part ground barley of which mixture she was given from four to six pounds a day, for she wasn't a very heavy eater, and one-half pound of oil meal until about one month before; she then received one pound per day of oil meal and two hand-fulls of beet pulp and molasses.

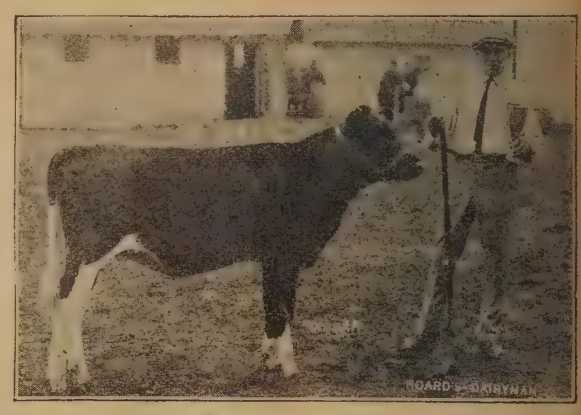
About a month before the county fair I started blanketing her; at first I took a bran sack, ripped it, and put it on her. Then about two weeks before the fair I doubled the blanket, and the week before I put a flannel blanket under these two bran sacks and these were kept on until the Dairy Cattle Congress.

I started to lead her when I put the first blanket on her. She soon began to lead very well; then I started making her step when I gave a little jerk on the halter strap; she soon learned what it meant and the next was to make her stop with her top line straight and her feet in the right position. This took a long time and at the county fair she wasn't trained enough yet.

Helps Dad Too

Fayette County was going to take two groups of calves to the Cattle Congress and my heifer was to be one of them. My father was taking nine head to be shown and I took care of them. It kept me very busy and every evening when they were taken care of, I would go over to the calf club tent and take her out back of the tent where there was plenty of green clover grass and let her eat.

The club calves were to be judged on Wednesday afternoon. So Tuesday night I gave my heifer some salt mixed with her feed and the next morning she received but very little to eat or drink so that she might be hungry at noon, but she had all the clover hay she could eat. About twelve o'clock I gave her a large feed of grain and a little skimmilk to drink. Then just before they were to be shown she was given enough skimmilk to make her look plump, rubbed with a woolen cloth with some olive oil on it, and her horns shined.



IRVING STEWART WON A SHOWMAN'S CUP AT THE 1923 DAIRY CATTLE CONGRESS

At one o'clock I was leading my heifer into the ring. The judge gave me 13th place out of the 63 calves shown. All the time I had kept my eyes on my heifer only and shortly after the judges were through placing, one of them came up and told me to stay in to compete as showman.

At 3:00 they finished the judging in a large yard outside of the pavil-



4-H CLUB WINNERS FROM ALL OVER WISCONSIN, AMONG THEM SEVERAL HOARD'S DAIRYMAN JUNIORS, ATTENDED THE RECENT SHORT COURSE AT MADISON

on. The winning Guernsey calf and wner were out in the center of the ard. I brought my heifer up beside er and gave a little jerk on the hal- er rope. She obeyed and stopped in orrect position with top line raight, feet in the right place, and ead up. Then the judge pointed to e and Fred Ferguson gave me the hampion Showman's Cup.

Iowa. IRVING STEWART.

Our Weekly Review

(Each week, boys and girls, in this col- mn we want to give you a little review of oard's Dairyman for the previous week. re is where we have a chance to talk it er. The Junior Editor would like your nion on this column.)

Have you discovered yet what Pro- ssor Fraser thinks is the best pas- re crop? Another one of his pas- re problem articles appeared in st week's Hoard's Dairyman, (July), and there is a third article in is week's issue.

There are other articles in the ly 11 issue which we will briefly view this week. For further dis- ssion of these turn to the articles titled "Cow Testing Associations Denmark", "Result of Careful reeding", "How Production Var- ".

When does the first waste often gin in a bluegrass pasture? In e early spring when many dairy rmers make a practice of turning eir cows out to grass too soon, us stunting the growth of the blue- ass during the entire season. In e more northern states, the middle May is usually about the right ne to turn the cows out to pasture.

Why is the grass stunted? Be- use it has been pastured too close the ground. This is just like get- g a boy completely tired out and ver giving him a chance to rest. obtain the best pasture, the blue- ass should be allowed to get up ree or four inches high in the ring before the cattle are turned t and allowed some growth in the l before winter sets in.

How long should it take a cow to up on bluegrass pasture?. Cows ould not be required to eat more an one hour at a time to fill up full, that they can and will lie down d chew their cud for some time. cow that has to tramp the pasture ht and day to get enough to eat n not possibly produce economi- ly.

What should you do when the pas- e gets short? Give them some ra feed so as to keep them in good h. "Even in the best dairy re- ns," says Mr. Fraser, "over half cows are too thin most of the mmer because of the lack of prop- and sufficient feed.

Where, when, and by whom was cow testing association idea orig- ted? It is generally understood t the cow testing association idea s originated and put into practice the Danish farmers in the year 5. In that year the farmers of th Jetland in Ribe County, fol- ing the suggestions made by Mr. ls Peterson, formed the first as- ation. The original plans were so efully developed that there has been great change in them even today.

low large are the cow testing as- ations in Denmark? There are about as many farms in a cow ing association in Denmark as re are in a cow testing association the United States. Because the ns are small and nearly every n has cows, in many of the asso- ions the tester does not have to el more than two or three miles each all the herds.

low long does a cow testing asso- ion operate in Denmark? The ish farmer feels strongly the val- f continuous testing. There are y associations now operating in Denmark that have been running from ten to twenty years.

When is the most butter made? Cheese? Ice Cream? Condensed Milk? The highest period of production for these four principal manufactured dairy products comes in the summer months from May to August inclusive. Butter is the most important, using four times as much milk as the other three dairy products combined. The most butter, most cheese, and most condensed milk is produced in the month of June, while ice cream reaches its peak of production in July. (See article "How Production Varies".)

How did the Nebraska College of Agriculture develop its present herd of Holsteins? Practically all of the herd has been developed from one cow, Karen II, who was bought about a quarter of a century ago. One of her daughters, Katie Gerben, made the world's record when she was three years of age, and is considered the foundation cow of the herd. Through careful breeding and keeping a close watch over the blood lines of ancestry, this herd has been developed until in the year 1923 all of the Holstein cows in the herd, numbering twenty-three, produced an average of 15,626.7 lbs. milk and 565.1 lbs. butterfat.

Junior Letters

From a Mexican Junior

Hoard's Dairyman Juniors:—We keep Jersey cows and make butter, feeding the skimmilk to the calves, pigs, and chickens. We have 22 cows, 6 grades and 16 pure-breds, also have some pure-bred heifers and young bulls. I have a brother seven years old and a sister five years old; all three of us are going to a Mexican school since New Years. Before that mother taught us at home.

We are the only Americans in Silao but it is only a few miles from here to Guanajuato mining camp where there are about 30 American families living.

Hoping to hear from some of the juniors and to learn if there are any members living in Mexico. My address is Silao Gto, Mexico.

Rachel McBride.

Another Junior in Australia

Hoard's Dairyman Juniors:—I would like to become a Hoard's Dairyman Junior, and enclose herewith the membership coupon, provided you will enroll members resident in Australia. My father is a subscriber to Hoard's Dairyman and I enjoy reading the Junior page. I live on a 250-acre dairy farm, which is 6 miles from the township of Toogoolawah, where Nestles & Anglo-Swiss condensed milk factory is situated, which employes 300 men when in full swing.

My father is a Friesian breeder and at present there are about 60 head on the farm. I have a two-year-old heifer with which I won first prize at the Brisbane Royal National exhibition in the junior calf class. I also have a heifer calf from her with which I hope to win some prizes this year.

Should you enroll me as a member I shall be pleased to correspond with the juniors, meantime I will await your reply. My address is "Burnbrae Friesian Stud", Toogoolawah, Queensland, Australia.

P. R. Alexander.

Story of Blossom

Hoard's Dairyman Juniors:—My papa joined the testing association. Harry S. White, our tester, asked my brother and me to join the calf club. So I talked it over with my papa, and he decided to let me join. So my papa helped me select my calf as we only had grade Guernseys. I thought I would try for fun, just to see if I could win a prize.

Mr. Stegner, our county agent, came here to look at my calf. He thought I had a very nice calf to start with and with the help of Mr. White I started in to feed my calf the first of May.

I mixed oats, corn, and had that ground together, then I mixed oil meal and bran together and fed this three times a day and four quarts of milk twice a day. I brushed her once a day and washed her once every two weeks.

In August, Mr. White and Mr. Stegner had a calf show in Houston. There were eight girls and seven boys that took calves to the Houston Calf Show that day. I won first prize and champion in the Houston calf show. And then I took her to the Houston County Fair at Caledonia and won first prize and sweepstakes over all breeds that day, and that gave me a chance to go to St. Paul with my calf, and I also received a prize up at the state fair, too. I sure saw some wonderful things at the state fair, although I had quite a bit to do. I had to take care of my calf every morning.

When we were in St. Paul we went through the state capitol and the agricultural building where there were school exhibits and other things, and then went through the fish hatchery and in the evening we went to the banquet.

We also went to see the blind people read and work, and from there we went through the Red Wing and Montgomery buildings. Friday night we had our picnic supper in the National park.

I went to hear speaking and spelling contests in the Agricultural building and the dairy demonstration which was at the main building.

I received $44 in prizes on Blossom.

Mildred E. Halverson.

Hard Luck, Soft Pick'en

The Hoard's Dairyman paper has come on the train,
There were to meet it Vern, Lloyd, and Shorty Wayne,
This was the gang which hoped to win
By receiving in mail the Junior pin.

The pin did not come, I'm out'a luck—
Then running and grumbling like a duck,
A week ago I sent the letter and it isn't here yet,
Don't worry, boys, other fellows the same trouble have met.

The eleven twenty train is in,
I'll raise a rough-house about my pin,
By gee, there's a letter for me in our mail,
The Hoard's Dairyman paper never fails.

I'm an owner of a badge, pin, and creed,
I'm among those who take the lead,
No other society, gang, or club
Comes up to the "Hoard's Dairyman Juniors' Club".

Middleton, Wis. John M. Hilgers, Age 12.

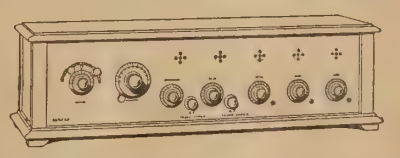
How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.





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The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

Fire destroyed barn, must sell prize winning pure-bred herd. Best of Sir P. O. M. breeding, son of "Creator". High production. Large, beautiful type. 44 head. No trade considered. VERDANT VALLEY FARM, Powers Lake, N. Dak.

My entire herd of Registered and high grade Holsteins. Just finished their second T. B. test, all clean. Would like to exchange my bull, Pinehurst Melchior Sir Ormsby No. 291577. His two nearest dams average, butter 365 days, 1094.26; butter 7 days, 32.50. W. J. GOLLMER, Apple River, Ill. 1-2

We offer another car of extra high grade Guernseys, three to five years, due to freshen from August first to September first; could furnish some July cows if desired. We feel that no finer, more uniform lot of cows was ever offered. Good size, fine conditions, exceptionally well marked, perfect udders. These cows will easily milk from 45 to 50 lbs. per day twice milking and have been selected as future trade builders for us in the locality that is fortunate to obtain them, from about 500 head. Federally tested, terms cash, prices reasonable. If you need them don't waste time in writing, come and inspect them. Also a few registered fall cows and some grade heifers bred from three to six months. One very fine registered first calf heifer due in July. MARA ALVA FARMS, Smithville, O. 25-*

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

For Sale—Registered Guernseys, male and female, of May Rose Bell Buoy of Linda Vista breeding, who has 32 A. R. daughters with records up to 769 lbs. fat. $50 and up . Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 23-*

For Sale—High grade Guernsey females of different ages, also real good Guernsey bull. F. J. GLANVILLE, Lancaster, Wis. 24-4

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

May Rose Guernsey bull for sale. 4 months old. Dam, 708 lbs. fat. Sire's dam, 909 lbs. fat. Other bulls older, nearly as good. HOMER RUNDELL, Livingston, Wis. 23-spl

Jersey bull, one year old, only $75. Worth several times this amount. Our herd of over 20 head all registered and T. B. tested. SAM SCHLABACH & SONS, Shanesville, Ohio. 24-4

Registered Jerseys. A few choice, fresh cows, heifers and bulls for sale. St. Lambert strain. Tuberculin tested. See them and you will buy. INGERSOLL FARMS, Elyria, Ohio. 24-4

Conkles Dairy Farm offers one carload of Registered Jersey bred heifers, T. B. tested, will freshen in fall and early winter. This is a good lot at a reasonable figure. CONKLE'S DAIRY FARM, Layland, Ohio 1-4

Jersey Cattle Sale—At Kansas City Stockyards July thirty-first. One carload springer cows, one carload two year old bred heifers, one carload year old heifers Ten extra good registered heifers. ED. SHARP, Wolfe City, Texas.

Registered Jersey Bull five years old. Sired by Financial Sensation. Excellent breeding condition, bargain. W. H. KIMMELSHUE, Manteno, Ill.

Ayrshires—Choice cows and heifers. Good breeding, tuberculin tested. Price reasonable. CHAS. DUNBAR, Elkhorn Wis. 1-2

Hereford Cattle for Sale. 163 yearlings, 186 two year olds. Sell one load or all. A. C. WISECORUER, Fairfield, Iowa. 1-3

STOCK WANTED

Wanted—One registered Holstein bull calf, also two heifer calves from high producing ancestry. CARL HENN, Jefferson, S. D. 1-2

Wanted—Serviceable Holstein bull from accredited herd. State breeding, markings or photo, record, best price. CHAS. BACKHAUS, R. 3, Kewaskum, Wis.

Wanted—About 60 cows from Federal Accredited herds. Guernseys or Ayrshires, registered or good grades. Address, with description and price, CEDAR HILL FARM, Waltham, Mass. 1-2

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Pure-bred Airedales. Extra fine pups. FRED SCHROETER, Grafton, Wis. 26-4

SWINE

Hampshire Hogs for Sale—The Hampshire hog is at home in the dairy comunity as they are good rustlers. We can give you a good start with a small investment. E. G. LEWIS, Media, Ill. 24-8

GOATS

Swiss Toggenburg milk goats, buck kids from eight quart per day milk stock. $10 up. Best blood lines in country. MATTHEW CATION, 10952 Esmond Street, Chicago, Ill.

MACHINERY

For Sale—2 unit De Laval Milker, Pulso pump and relays, everything complete, never been used; No. 98 De Laval Clarifier; 100 gallon Manning Pasteurizer; No. 3 Eureka steam boiler; steam turbine bottle washer with wooden washing vat; No. 4 Wright automatic bottle filler; 20-10 gallon cream cans; 1 bottle Torsion balance cream test scales, new; Friday butter printer with 3 30-lb. vats; 60 gal. power butter churn; 1½ horse, 32-volt electric motor with rheostat. This machinery is all in A-1 shape. WM. WEIBLE, Box 391, Chappell, Nebraska. 6-*

Cletrac Crawler Tractors—Used and new. CHADWICK BROS. CO., 430 Broadway, Milwaukee, 25-4

Corn Harvester cuts and piles on harvester or windrows, Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 25-10

Hinman electric milking machine, good condition, extra pail, $50.00 f. o. b. Rupert, Idaho. H. C. HANSEN. 26-2

For Sale—One two end bottle filler and a quantity of 2 inch insulation cork. HENRY JUERGENS, Hartford, Wis. 26-4

For Sale—Burton Page hand power milker, like new, price $60.00. CLARK ANDERSON, New Germantown, Pa.

For Sale—Outfit of Hinman milkers. Also extra units. Address BOX 200, care Hoard's Dairyman.

For Sale—2 unit De Laval milker, pulso, pump and relays complete. De Laval separator, 1000 lbs. capacity. OLIVER HUTMACHER, R. 1, Dakota, Ill.

For Sale—All machinery and equipment of Pomeroy Creamery. Used three years. In first class condition. An unusual bargain. POMEROY CEMENT BLOCK CO., Pomeroy, Ohio.

For Sale—As owner is selling dairy and farm, we are offering our 4 unit Sharples milking machine, "complete" for up to 60 cows. A No. 1 condition. $300.00. G. E. EMSTROM, Whitehall Farm, Elkton, Maryland.

AGENTS WANTED

Sales director for state or part of state to appoint local agents for Page Milker. Must travel personally and train agents. Exceptional opportunity for energetic man experienced in selling direct to farmers. BURTON PAGE CO., 1205 Cortland St., Dept. B., Chicago, Ill. 25-3

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

BUTTERMAKERS

Wanted—A buttermaker. Must be industrious, and clean character. State price and experience in first letter. E. G. LEWIS SEED CO., Media, Ill. 26-4

TOBACCO

Homespun Tobacco: Chewing, five pounds $1.75; ten, $3.00; smoking, five pounds $1.25; ten, $2.00; pipe free, pay when received. Tobacco Guarantee. CO-OPERATIVE FARMERS' Paducah, Ky. 1-4

SEEDS AND PLANTS

Your Seed Will Sell Rapidly if you advertise it in these columns. Rate is ten cents per word including address. HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 26-*

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

FEEDS

Soy Beans for Feed. Many Agricultural Colleges recommend soy beans to replace oil meal for dairy cows. We offer a limited amount of ground or unground at bargain prices. E. G. LEWIS SEED CO., Media, Ill. 24-8

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Pictorial Postcards to Order. 1000 for $10. OFFSET GRAVURE CORP., 351 West 52nd St., New York. 1-4

DAIRIES

Fine Dairy Business Sacrificed—Owner obliged to leave, must sell dairy stock, equipment and growing dairy business—a monopoly of milk trade of two towns, mile apart; also resort hotels and camps at lake. Increase in business this year 25 per cent. Will lease dairy farm to purchaser. Splendid opportunity for experienced dairyman with some capital. This is the famous White River country of Missouri Ozarks, an ideal dairying district. Address LOCK BOX 187, Hollister, Mo.

FOR RENT

Modern Dairy Farm, 241 acres, can divide. Highway 19 east of Madison. Condensery, town, ¼ mile. Address Owner, BOX 186, care Hoard's Dairyman. 1-2

Farm for Rent—Half section in S. D. on the fifty-fifty proposition. Tenant must be able to purchase half interest in a herd of grade and pure-bred milk cows, and have personal property free from encumbrance and must be able to give best of references. Mason preferred. Apply P. O. BOX 363, Clark, S. D.

FARMS WANTED

Want farm of from 120 to 360 acres with good buildings and stock. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

FARMS FOR SALE

Slaughter price on an 80 acre farm, one of the best in Wisconsin. Place well improved. Located in Clover Belt. Address MRS. ORA BREAW, Waukesha, Wisconsin. 22-6

Farm land prices are low and terms easier than they will ever be again in the Northwest. Low round trip homeseeker and summer tourist tickets to Minnesota, North Dakota, Montana, Washington and Oregon. Free descriptive book. E. C. LEEDY, Great Northern Railway, Dept. 82, St. Paul, Minn. 23-*

Register and Secure a Farm. This giant company has already started hundreds on its wonderful colonization plan. You can get a rich clay loam dairy farm close to big towns and good markets. Many neighbors. Only $2000 for a forty with good barn, nice house, best milk cows. Only $100 deposit required and balance in 10 years. A greater opportunity than a U. S. Homestead. Particulars sent free. NATIONAL LAND COLONIZING CO., Dept. E, 7, Madison, Wisconsin. 24-4

Minnesota offers opportunities to farmers. Send for free map and literature. O. H. SMITH, Commissioner of Immigration, Dept. 676 State Capitol, St. Paul, Minnesota. 25-9

Wyoming—Colorado Irrigated Land. Priced to sell. Attractive terms. Ideal location. WHEELER REALTY CO., Bloomington, Ill. 1-4

For Sale—Good hay, grain and dairy farm, 289 acres. All equipped. 10 miles to city, 1 mile village. J. E. WEBB, Route No. 4, Carthage, New York.

Auction Sale to settle estate of Wm. Barthel, deceased, Aug. 16, 1924, 1:00 p. m., Milledgeville, Ill. Well improved 240 acres ½ mile from town. Also 120 acres 4 miles south of Shannon, Ill. Positive sale. Write for information. DOROTHY BUSWELL, 245 Mary St., Flint, Mich. 1-2

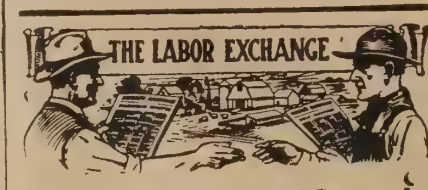
Found. In Wisconsin, a great alfalfa, corn, potato, clover and dairy country. Shawano, Oconto and adjoining counties. Send for free picture catalog of farms. Deal direct, no commissions. WISCONSIN FARMERS' & HOMESEEKERS' SERVICE BUREAU, Marshfield, Wis.

200 acre stock and sheep farm, well improved and equipped. Good buildings. 3 miles from Mille Lacs Lake. $75.00 an acre. Your own terms. FIRST NATIONAL BANK, Milaca, Minnesota. 1-4

Attention, Dairymen—Western South Dakota where alfalfa grows like a weed, and corn with other grain produce in abundance. With a climate unsurpassed for healthfulness. Our cheap and fertile soil makes possible more profitable farming. Write F. K. WING, Owanka South Dakota.

WANT TO RENT

Wanted to Rent on shares, starting Dec. 1, for term years, modern, fully equipped farm, close to school, market, by married man with best references. Might consider management or herdsman position with good herd. Address BOX 202, care Hoard's Dairyman.



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, willing to accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

High Class Dairy Workers Wanted; barn and milk room. Good wages paid good men. Booze drinkers need not apply and the use of tobacco in any form prohibited while at work. If you are a good worker, clean and intelligent, looking for a permanant place, write us. HAPPY FARMS DAIRY, P. O. Box 139, Miami, Florida. 19-*

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150—$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 25-4

Wanted—A good dairyman, single preferred. Will pay $50 per month, with board, room and washing. Pleasant surroundings. P. A. DICKSON, Clay Center, Nebr. 25-4

Get U. S. Government Life Jobs. Men—women—18 up. $95 to $250 month. Steady work. Paid vacation. Short hours. Common education usually sufficient. Pull unnecessary. List positions obtainable and specimen questions—free. FRANKLIN INSTITUTE, Dept. N108, Rochester, N. Y. 26-4

Wanted at Once—Single man to take charge small herd Registered Holsteins and do general farm work. Permanent position. State qualifications and wages wanted. S. F. PINKHAM, Absaraka, N. D.

Wanted—Steady man for general farm work. $40 per month. A. H. YAHR, R. 3, BOX 36, Sawyer, Wis.

Wanted—Man to milk Holstein test cows with milking machine. DENNINGTON FARM, Jermyn, Pa.

Wanted—Herdsman, married or single, to take charge of Jersey herd, where semi-official work, with three times a day milking. State ability and wages. HUNTINGTON FARM, R. 9, Washington, Pa.

Wanted—A married man to work on a dairy farm by the year. Must be industrious and sober. Splendid opportunity for the right man. Farm is situated on a main road 1½ miles from a city of 7000. MEAD BROTHERS, Three Rivers, Michigan.

Wanted—Young man, married preferred, to handle cows and run retail milk route where Ford truck is used. Write for particulars. Give references. JAMES S. D. CUMMING, Hampton, Virginia.

Wanted—Married man competent to take full charge of a twenty cow dairy, registered Holsteins. O. V. BELL, Bellefontaine, Ohio. 1-2

Wanted—Married man to live on farm, charge milk room, wash bottles, bottle milk and make buttermilk. PLAUT DAIRY FARMS, Danville, Ill.

Competent Working Foreman Wanted—Dairy Department of a County Institution in Western Pennsylvania requires the services of a middle-aged man, preferably married, to take charge of an accredited Holstein herd of approximately 125 head, all registered. Must be experienced in the production of clean milk all of which produced by the herd is consumed in the institution. This is a splendid opportunity for someone willing to work hard to make something of the herd. Excellent living accommodations are offered and a fair salary to the right man. Send references and full details in first letter. BOX 204, care Hoard's Dairyman.

Wanted—Working herdsman to take charge of Jersey herd and handling of milk. Address stating wages, "ROSE WAY FARMS", N. A. Pierce, Mgr., Paoli, Pa. 1-2

Wanted—Experienced milker and dairy hand on pure-bred Guernsey farm. WYANET FARMS, R. 6, Davenport, Iowa.

Wanted for a first class dairy, clean well educated boys, first class milkers, knowing their business. Good pay and fine position. Address MANAGER, Robins Nest Farm, Oak Hill, Peoria, Illinois.

Eight testers wanted before August 1st for one year in Cow Testing Associations. Prefer single men over twenty-one years, having Short Course or herdsman training. Tell experience in dairy cattle feeding and operating Babcock tester first letter, with salary $75 to $80. Write CRAMER, Dairy Records Building, Madison, Wis.

Wanted—Married man, middle-age, with help to run farm and dairy. We have all pure-bred Ayrshires. Man must understand dairying. Good opportunity. AYRSHIRE BREEDERS' & DAIRY CORP., S. S. Hess, Manager, Freeland, Pa. 1-2

POSITION WANTED

Wanted—Position as milk wagon driver on retail route. Address BOX 194, care Hoard's Dairyman. 26-2

Young man wishes work on dairy farm. Experienced in all farm work. W. E. RAWHAUSER, Elk Mound, Wisconsin. 26-2

Position wanted by married man with small family. Experienced with Holstein and Guernsey cattle and general farm work. State wages and particulars. Address BOX 203, care Hoard's Dairyman.

Married, working manager open for proposition between now and September 1st. At present am manager of large wholesale and retail routes and farm also. Understand how to produce any kind of milk and am a No. 1 herdsman. Reason for leaving here, changing hands. State wages and full particulars in first letter. WILLIAM HENRY, Gilman, Ill. 1-2

Position Wanted—Experienced dairyman, forty. Clean habits. $60.00 per month and board. Reference. Address BOX 198, care Hoard's Dairyman.

Manager—Herdsman—Graduate veterinarian. Married, wants place where training and experience with Holstein-Friesians can be used advantageously. C. H. ROSENSTIEL, 419 Saxby Ave., Freeport, Illinois.

Position wanted in dairy by single, middle aged man with life experience. Familiar with Sharples milker and all farm machinery. Also experienced in cheese and butter making. State wages paid. Address BOX 185, care Hoard's Dairyman.

Position Wanted as manager dairy farm Illinois or Wisconsin preferred. Age 26, single, life experience and 2½ years agricultural college work. Have been managing 360 acre farm since leaving home and can give reference from owner. Ready to start work August 1st. A. G. PARKER, 920 Leland Ave., Chicago, Ill.

Manager—Graduate Veterinarian, of stock farm or dairy. Experienced in all branches of dairying and swine husbandry. Bigger the proposition the better. Married, 34 years of age. Open for position August 15. References exchanged. Address BOX 201, care Hoard's Dairyman. 1-2

Middle aged man and single wants place as dairy herdsman. 20 years' experience. WM. CARLEY, The Northern Hotel, Rochester, Minn.

Married man wants position, modern dairy. Can take charge. Dry hand milker. Operate milking machines. West preferred. Address BOX 199, care Hoard's Dairyman.

Married man with good references wants position on private place or farm. Good gardener or farm hand. Further information by letter. Address BOX 193, care Hoard's Dairyman. 26-2

Working Manager—Herdsman, married, small family, wants a position on or before Sept. 1. Lifetime experience with pure-bred cattle, thoroughly competent to do official testing, short or long time, fit and show, raise calves, make grade A milk and butter. Understand modern farm methods and machinery. Wife excellent cook, willing to board men. Full particulars first letter. Address BOX 207, care Hoard's Dairyman.

Position as manager or foreman on dairy farm wanted by middle aged married man. No objection to working position. Thoroughly experienced, good reference. Herd and equipment must be good. Address BOX 206, care Hoard's Dairyman.

Position wanted as herdsman with good dairy herd. Married, agricultural college graduate, experienced. Open at once. Any good livestock or poultry proposition considered. Address BOX 205, care Hoard's Dairyman.

Want position on farm where dependable, experienced man is needed. Life experience with all live stock, the growing and harvesting of crops. Can successfully operate all modern farm machinery. Five years with tractors and milking machines. Not afraid of work and shall work for your interest. SAMUEL CALLOW, JR., Waukesha, Wis.

Position Wanted—As manager of large, modern dairy farm by midle aged married man thoroughly experienced, 16 years on farms in Illinois, Michigan and Maryland. Present employer is selling out. Will be at liberty about October 1st. Have three experienced men with me. Can produce Certified or Grade A milk. Nothing but a first class proposition will be considered. Best of references. G. E. EMSTROM, Whitehall Farm, Elkton, Md.

UNION PACIFIC SYSTEM

Dairy Development

is going ahead faster in some of our Western States than in others, because in such States the fact is recognized that those districts in which dairying and balanced farming are carried on, extensively, prosperity reigns; that, although those lines of endeavor mean continuous employment, a steady stream of cash flows in.

Idaho offers exceptional opportunities to "dairy-minded" persons, and, if you will drop me a line, I'll be glad to send you, absolutely FREE, a copy of our illustrated folder entitled, "Dairying in Idaho." Ask me for information covering Round-Trip Special Homeseekers' Excursion Fares, in effect March 4 to November 18, 1924.

R. A. SMITH, Supervisor of Agriculture,
Union Pacific System
Room 4, Union Pacific Building
Omaha, Nebraska

DISPERSAL SALE
GUERNSEYS

PROPERTY OF GEORGE P. ZOUCK
White Hall Farm, 1 Mile South of ELKTON, Maryland, on Eastern Shore Road

WEDNESDAY, JULY 30
10 A. M.

64 HEAD--18 REGISTERED--46 GRADES

REAL PRODUCERS
TERMS CASH OR BANKABLE PAPER
For further information write

LOUIS McL. MERRYMAN
SPARKS " " MARYLAND

Registered Holstein Springe

to freshen from August on. Tuberculin t
ed. Best of breeding. Write A. C. Messen
Mapledale Stock Farm, Burton, O

The Burro and the Bull

HOARD'S DAIRYMAN:—We all know that bulls of any breed are vicious. We also know that you can't "buffalo" a bull. One of my neighbors said to me one day: "I have my bull buffaloed. He is just plumb scared to death of me." I replied that I never saw a bull that was afraid, only temporarily, of anything and for him not to put any confidence in that scare. About three days afterward that "buffaloed" bull attacked my neighbor and had he not fallen



This is a three-year-old bull. He and the burro are just "thinking it over". Do not hitch to ring at start, but put a rope around bull's neck and run it through ring till bull gets so he will lead, otherwise he may break ring or pull it out.

into the manger and made good use of his pocket knife around the bull's eyes he would not have escaped.

J. N. Heywood and myself shipped in a Guernsey bull calf some years ago. When he was about three years old he became very vicious. Could not drive him out of the pasture on foot, could not keep him tied up all the time, couldn't safely breed him either in or out of a bull pen, but he had to have exercise.

Since I had had a life of experience handling range cattle, I usually handled him on a good saddle horse; but that was not satisfactory since it took time just when I wanted to do something else. That bull tore down good fences, helped me over the corral fence when I got to it just before he did, got the hired man down, and it took three of us to get them loose from each other. He just kept up a general cyclone scare on the place all the time.

Finally I got an old, slow burro and took a little chain about three feet long with two swivels in it and a snap on either end. I put a wide strap on the burro's neck with a ring in it. Then I necked the bull and the burro together. You should have seen the fun! A burro hates to be necked to a bull. A bull hates the burro just as bad. I think they put in about the first three days sulking, fighting, and being agreeable by turns before they seemed to come to an understanding. Then it seemed to be settled that wherever the burro went the bull would go also.

One of the neighbor's bulls came down the fence line (and a good fine wire fence it was too) and invited our bull over to a fight, which was immediately accepted. Of course the arrangement was perfectly agreeable with the burro and the fight came off. Those bulls tore down the fence, got the burro down, walked on it and dragged it about until I could get to them and run the other bull away. Well, that taught the burro a lesson. It would never let that bull go over the fence when another bull was there. She led right off in another direction. If Mr. Bull objected she would kick him in the side; if he tried to go around her she bit him on the ears, or brought him up standing, turned him around and started off again.

I could go down in the pasture and rub that bull on the sides. He would make an awful fuss about it but he couldn't hurt anything.

When breeding to a cow, reach over the burro's back and snap your lead chain or rope into the bull's ring and loose him from the burro. When you get ready to take him away from the cow, run the rope through the strap around the burro's neck and pull the two animals together, reach over the burro's back and snap your necking chain into the bull's ring. He can't possibly hurt you. He can't serve a cow while properly necked to the burro, but while in the corral or pasture he certainly will behave himself.

Arizona. EVANS COLEMAN.

Putting Shoes on Bulls

Some Arizona cattlemen are providing their bulls with shoes to protect their feet from the rough rocks of the mountain ranges. The department reports that the shoes are similar to those worn by oxen used for road work. Cattlemen say that heavy bulls brought to Arizona from the soft ground of the Middle West are slow to get their feet hardened to the rocky slopes on much of the Arizona range, with the result that the animals stay around the water holes in the valleys and get little to eat.—U. S. D. A. Official Record.

A Maryland Champion

Delilah Jewel Canary Repeater is now the state's leading cow for ten months' production as a junior four-year-old with a record of 16,547.1 pounds milk and 576.36 pounds fat—equal to 720.4 pounds butter. She is owned by the Sykesville State Hospital.—Holstein-Friesian Ass'n of America.



A reproduction of No. 17 of the Graham Brothers Series on "American Industries", as published in the Saturday Evening Post of July 12, 1924.

Riches of the Soil

More than a third of America's population is engaged in farming, and half of all her land is farm land.

There is no industry of comparable magnitude; no nation that derives such vast riches from its soil. Farming is the foundation of America's wealth, the bulwark of her power.

The value of our farm production in 1922 was $14,310,000,000. Cereals, grains, cotton, tobacco, sugar, rice accounted for $8,580,000,000; animals, $2,580,000,000; dairy products, $1,150,000,000; vegetables, $850,000,000; poultry and eggs, $720,000,000; fruits, berries and nuts, $430,000,000.

One of the most important needs of the modern farmer is dependable transportation. Graham Brothers Truck supplies this need to a maximum degree. Its exceptional sturdiness and unusual power adapt it particularly to the arduous task of country hauling. There is a standard body for every purpose—and a Dodge Brothers service station within easy reach of the remotest farm.

1 Ton Chassis, $1265; 1½ Ton, $1325; f. o. b. Detroit

GRAHAM BROTHERS
Detroit

Write for The Story of Old Number One

Graham Brothers learned the requirements of a farm truck and developed the various body types for farm use through actual experience in operating the Graham Farms of over 2000 acres in the good farming section at Washington, Ind. The first truck built by Graham Brothers is still in daily service on their farms.



Trucks and Bodies for Grain, Fruit, Livestock and Dairy Farms

GRAHAM BROTHERS TRUCKS

SOLD BY DODGE BROTHERS DEALERS EVERYWHERE

HUDSON

ANIMAL POKE



Keeps the Cows In—
SAVES THE FENCE

Strong, light, comfortable. Made of steel, rounded edges; heavy enough to correct the most unruly animal. Rowel-wheel acts quickly and effectively. This poke can't chafe the neck nor bother the animal. Long forks; extra strong hinges. Adjusted without tools. See it at your HOMETOWN HUDSON DEALER or write us.

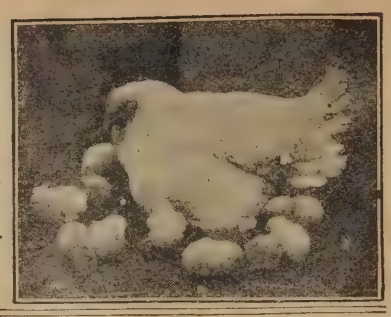
HUDSON MFG. CO.
Dept. 4415 Minneapolis, Minn.

Holstein and Guernsey Sale

A RARE OPPORTUNITY—My lease expiring, I offer my herd of 54 Guernseys and Holsteins, five registered, as a whole or as two herds. Have tuberculin tested, kept daily milk records and used registered sires for years, and offer real proven values at a fair, but not a sacrifice price. Nineteen young cows, 20 heifers over a year, 14 under. Complete details from
C. C. Wooden Arlington, Md.

POULTRY On The DAIRY FARM

J. B. HAYES



Summer Management

Development is primarily a strain characteristic. Although one will expect the smaller fowls to mature more rapidly than the large breeds, there is still a distinct difference in the rate of development within the breed. Improvement along this line can be inaugurated by a continued cull on all young and growing stock that tends to grow slowly or display evidence of lowered vitality. Birds of this class will generally not develop into highly profitable producers because they are lacking in what is necessary to lay and be kept at a profit.

One can be reasonably certain that it is time to stop, look, and listen when a high percentage of chicks appear in a flock that do not feather out rapidly but remain bare and sunburned all summer. These chicks may look good, in so far as physical appearance indicates, but there is something wrong That class of stuff does not develop into the highest production line.

Twisted wings are another manifestation of the same thing. Most of that kind should be utilized as market stock and not saved for breeding. At the same time one should arrange for the introduction of a new line of breeding to increase the vigor.

Chicks cannot be neglected during any stage of their development if success is expected. The growing season is entirely too short at best and every day is required for proper growth and an early production. There is a possibility of overdoing this just a little on the part of some of the better feeders. When matured too early, one will encounter a late summer lay and a consequent early winter molt.

The few instances when this has happened has been broadcasted so thoroughly that more people are getting scared of the cars and stopping their work too soon. In other cases the young stock has been pushed until well into the summer when mature development was noted and the brakes were applied.

A safe procedure to follow includes pushing the early hatched chicks in a normal manner and the late hatches as rapidly as possible until they reach broiler age. At that time a gradual change can be made in the ration by decreasing the amount of animal protein that is fed and a slower growth will result. The changes must be made gradually to prevent causing even a greater damage.

At the time that the stock is developed, or development is desired, one can increase the animal protein content of the dry mash. There isn't any other form of feed that will finish and mature stock without causing any damage.

Not half enough corn, grain, and hay fields are utilized for poultry as they should be. Too many farmers use a house mounted on a permanent foundation for chick rearing. This arrangement means that the young stock inhabits the same range year after year in company with the old stock. When a small portable house is used it can be pulled from one field to another as the season progresses with a cheaper, better growth on the chicks resulting.

About the nearest thing to an ideal range is an orchard in which the grass is cut to keep the green feed tender or a location adjacent to a corn field for a cool, shady range and a seeding for green feed. Very little feed, aside from the dry mash, is required when young stock can forage over a field from which the grain has been harvested.

Any number of conditions can result from an insufficient quantity of green feed. Late in the season when the ground around the house becomes bare and the grass is dry and tough, one should cultivate the bare sections and seed to oats, barley, or rape. Green feed has been one of the neglected items on the menu.

If portable colony houses are used one should have them elevated about a foot. The space beneath the houses allows for shade for the chicks in a cool place and prevents, to a great extent, the harboring of rats.

All of the males should be separated from the females when weighing about one and a half pounds. When both sexes are permitted to range together, a slower growth is experienced. A second and more important reason for selling the males as early as the market will permit, is a greater profit. Cockerels are a necessary overhead that should be unloaded just as soon as possible while the price is holding. One can never be certain about market quotations but early broilers are high in price and can be sold to advantage with a rather low production cost for feed. The longer they are held, the higher the investment becomes, unless a rapid gain in weight is accomplished, and a fall price on a five-pound cockerel may not be any more than the early spring price that was obtained for a pound and a half broiler.

Incubator Chicks Die In Shells

Please inform me why incubator chicks die in the shell and what is the cause of same. Any information you can give me will be highly appreciated.

Donaldson, Ind. (Mrs.) J. F. S.

There are a number of reasons for chicks dying in the shells. We have rather believed that this was primarily caused by the matter of individuals. That is, so far as we have gone at the present time, we find that in the pedigreed stock there are certain hens that will give a high percentage of fertile and hatchable eggs, while another bunch is very low in the hatchability of their eggs. This is one of the factors that has been used in the building up of our production strain.

Oftentimes the incubator may be at fault, and we have found that using an excessive quantity of moisture in our machine especially later in the season is good and have also had reports from others stating that the addition of moisture to the machine has resulted in improved hatches. This is plausible when one stops to consider that the membrane which lines the interior of the shell when dried out becomes very tough, hard, and resistant and rendered almost impossible to break apart, while if they are soft, it is very easy to tear them. We have supplied moisture by taking the egg trays out on the seventh, the fourteenth and the eighteenth day, sprinkling them with warm water, and in a great many instances have placed wet sponges in the egg chamber from the eighteenth day on to keep a constant supply of moisture. A film of water on the glass in the door or at least in the two lower corners seems to indicate the most satisfactory hatching conditions that we can wish for.

It is undoubtedly true that lowered vigor and vitality in the flock will cause lowered hatchability because this is closely associated with incubation. The suggestion at this time would be to try the moisture in the machine and see if it wouldn't improve the hatch, and if that is not true to check up on the breeding of the flock to see that either inbreeding or line breeding has not been carried to such extremes that the vigor and vitality of the flock is seriously affected.

As I stated, this question of hatchability is still an open subject; there is a great deal of controversy being carried on at the present time concerning it and no real research work has been done that would give one definite ground on which to act.

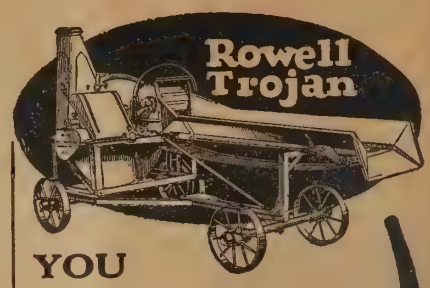
Wisconsin Poultrymen

The dates for the summer meeting of the Wisconsin State Poultry Breeders' Association at Madison, Wisconsin, have been tentatively set for July 25 and 26, 1924. All meetings will be held at the University poultry building and a large number of attendants are expected because of the many important subjects that will be discussed.

The out of state speakers include Professor L. H. Schwartz of Purdue University; Professors Kempster and Winton of the University of Missouri; Professor J. Holmes Martin of the University of Kentucky. Recent investigational work on baby chick feeding and diseases will be discussed. Special emphasis will be given to white diarrhea. Demonstrations will be given of how the white diarrhea blood test is made and reports will be made of experiments now in progress with this disease at the Wisconsin College of Agriculture.

Milk Record Sheets

For years Hoard's Dairyman has been preaching the necessity of keeping records of the production of each cow. Only by knowing how much milk each cow actually gives is the dairy farmer able to improve his herd. Our Book Department has various sizes of milk record sheets to make it easy to keep tab on your cows. Complete samples with price list will be sent for 5 cents in stamps. Address Hoard's Dairyman, Fort Atkinson, Wis.



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In the Wisconsin University Tests the GEHL Disc Type machine cut and elevated into the silo at the rate of 16 tons per hour with 16½ h. p. This proves that *any light two-plow tractor can run it successfully at full capacity.*

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VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Difficult Urination

It is comparatively common for steers to have difficulty in urinating. In some cases urine is wholly suppressed and the cause is mechanical blocking of the urinary channel (urethra) of the penis by a particle of gravel or small stone from the bladder. In other and more usual cases the difficulty is due to a collection of clay-like or gritty sebulous and limy substance in the sheath and coagulated on the hair at the orifice of the sheath. When a gravel or stone blocks the urethra, death will soon result from rupture of the bladder unless relief promptly is given. In a wether or ram death from rupture may occur in 48 hours; an affected steer may live longer in that condition. Text books advise locating the stone and removing it by cutting down upon the penis, opening the urethra, and extracting the offending body with forceps. That sounds easy or feasible, but in practice it is by no means a simple operation and, indeed, often is impossible of accomplishment on account of the extreme fleshiness of the overlying parts.

It is likewise almost impossible to pass a catheter far into the urethra of a steer or bull, as there is an S curvature which prevents passage of the tube. An expert may be able to stretch the penis and pass the catheter on a long, slim, flexible sound or probe to locate the lodged stone; but that seldom happens. If removal of the stone by such operations fails it is still possible to save the life of the animal by cutting into the urethra where the penis bends over the brim of the pelvis just under the anus. That lets the urine gush out and the steer may then be quickly fed off for slaughter. In some instances, where the urethra has been so opened and the urine has escaped from the bladder, it has been found possible to pass a catheter or probe downwards and possibly dislodge the blocking substance, or locate it and remove it by cutting or even passage of a slim forceps, but these cases are the exception. It is an easy matter, however, to remove the substance that blocks the sheath and then to syringe out the part with a 2 per cent solution of permanganate of potash, after clipping off the hair, and then to apply an ointment of iodoform and lard or vaseline.

Cows sometimes have similar difficulty in urinating and when the urine is suppressed show great distress indicated by colicky pains, kicking at the belly, getting up and down, straining and arching the back to urinate, with the urine coming in spurts or a constant dribble. Examination of the vagina discloses presence of a collection of substance similar to that found in the sheath of the steer and blocking the little pouch cul-de-sac or diverticulum found just at the entrance to the urethra. It is not a difficult matter to break down and remove the blocking mass by syringing with warm water, manipulation with the fingers, and use of a scoop or forceps. When it is removed urination is at once effected and the cow may have no further trouble. The examination, by hand passed into the vagina, should always be made when a cow shows distress in urinating. Less rich meal and more laxative and succulent feed should be given following the operation.

Tumor in Udder

I have a fine Jersey cow that three weeks or more ago had a lump come upon the back part of the udder, like some of the other cows had hooked her, but there were no bruised places on the udder nor any sign except the knot and I applied some liniment but it did no good except take away the soreness. Knot is still there and would like to have it removed.

Mercer, Mo. B. B.

When a hard "bunch" or tumor forms high up in the rear of the udder it always is well to have the tuberculin test applied by a veterinarian, as tuberculosis may be causing enlargement of a lymphatic gland. If that disease is present it is incurable and contagious and also makes the milk dangerous for use by people or animals. A tumor such as you describe may also be caused by a bruise from a horn thrust, or some such injury, or to an attack of mammitis or garget. Until you can have the test applied by a veterinarian rub a little ointment into the enlargement at intervals of two days and if that does no good try the effects of mercurial ointment rubbed in two or three times a week, but keep it out of the milk as it is poisonous. If the cow reacts to the test she will have to be disposed of in the manner prescribed by state law which the veterinarian will explain.

Preventing Milk Fever

Please tell me if there is any particular way to feed or care for cows before calving time which would prevent milk fever.

St. Johns, Mich. R. H.

A susceptible cow will be much less likely to have an attack of milk fever if "dried off" for at least six weeks before calving and during that time is fed a light, laxative ration and made to take daily outdoor exercise. Avoid pasturing such a cow on lush green grass or clover. Let the new born calf nurse for 3 or 4 days, or during that time only strip out enough milk several times a day to prevent garget. Letting the calf nurse is the better plan. Also feed very lightly for the first week after calving.

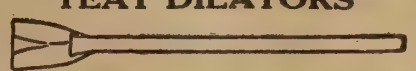
Garget

Please advise about cow freshened 30 days ago. One quarter is caked and not much milk comes from it. Am afraid she will lose it. Please give treatment for it.

E. Liverpool, Ohio. E. D. W.

Isolate the cow and strip the quarter clean once an hour during the day. In the evening rub in a mixture of equal quantities of carbolized oil, camphorated oil, and compound soap liniment and mix in the feed one tablespoonful each of powdered poke root and saltpetre. If possible have a veterinarian give hypodermic treatment with mastitis bacterin. It is to be feared, however, that the affected quarter will lose its normal milk producing function.

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Ever Failing or Never Failing Pasture

(Continued from page 5)

to men who had had experience pasturing alfalfa, and received 30 replies giving the results of pasturing 350 acres with 600 cattle. Only six of these men had any difficulty in keeping a stand of alfalfa, so it is apparent that this is no serious objection. Bloat occurred in ten herds, however, or about one-third of the total number. The men who did not have trouble on this account said it was due to the fact that they gave the cattle a full feed of their usual ration just before turning them on the alfalfa, and never took them off more than an hour or two at milking time. Two of the men who had trouble said that they prevented further trouble by giving the cattle a full feed just before turning on. Others said a supply of straw or hay in the pasture would prevent bloat as the cows crave some dry feed on this very succulent pasture, and eating some dry roughage with the green alfalfa prevented bloat. Alfalfa is even more likely to cause bloat after it is frosted in the fall.

In a two years' test of pasturing alfalfa at the University of Illinois, no bloat was experienced. To prevent it, the cattle were given a full feed before being put on pasture, turned on when the alfalfa was not wet from dew or rain, and kept on constantly day and night

In Kansas and adjacent states, it is the practice to turn all classes of live stock upon alfalfa pasture, and many men there seem to be able to handle their alfalfa pasturing with no bad results from bloat.

Several other dairymen besides the 30 reported above have been interviewed on pasturing alfalfa, and it must be said from all the farm experience known that whatever the precautions taken, there is some danger of bloat. This loss or possibility of loss is so serious that pasturing alfalfa cannot be unreservedly recommended, although its dangers may be very greatly reduced by observing the precautions mentioned.

There is, however, another legume pasture crop of equal if not greater feeding value and without the bloat danger—namely, sweet clover. It is very economically produced, and it is an excellent supplement to bluegrass. Its merits will be discussed later.

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Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



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My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.
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Did you ever stop to think that the choice of a herd sire will likely make or break you in the dairy game. If you pick a good one, the price you pay is of little consequence and if you pick a poor one, you pay too much even if you get him for nothing. The great sires of tomorrow are being offered for sale today. The place to find them is in the herds that are making the big production records. The Sherman Jersey Farm is one of those places. In two years, it has made 40 R. O. M. averaging 516 lbs., won two Gold Medals and six Silver Medals and produced the Champion Jersey of the Middle West with a record of 1019.73 lbs. fat. If your herd is not doing as well, you need our latest price list just off the press. Write for it.
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Style	To 48 in.	50-68 in.	70 in. up
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Khaki or Gray Duck	3.60	4.70	6.20
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R. LAACKE COMPANY, 553 Third St., MILWAUKEE, WIS.

Selecting Animals for the Dairy Herd

(Continued from page 3)

animal, for capacity of barrel, for evidence of constitution, for size, shape, and quality in udder, for a straight, strong back and rump, for a shapely head with prominent bright eyes and a large muzzle and finally for a proper balance of these important points coupled with a lean, rather angular appearance known as dairy temperament. In addition in selecting cows or heifers it is desirable to get all the information one can of sire and dam of the animal or animals under consideration. This is especially important in the case of calves and heifers. If the sire is well bred and dam a good producer, the heifer will probably develop into a good cow but this is not infallible. Her work in the very first lactation period should be carefully checked in order that her present and probable future usefulness may be known.

Selecting the Sire

Sire selection is a matter of outstanding importance to the dairymen. The dairy herd is constantly changing. Animals are continually dropping out through disease, accident, or old age or are removed because of inferiority. On an average there is a loss in number of 18 to 20 per cent yearly. Replacement must be through purchase or by raising heifer calves. Good cows for sale are not plentiful and most dairymen must raise a sufficient number of heifer calves to maintain the herd. The usefulness of these calves to him as milk producers at maturity and their type or beauty of form is determined by their inheritance. Dairymen can control inheritance through selection of breeding animals. The sire is of first importance because his individuality and inheritance are transmitted to every animal born in the herd.

The future herd is dependent upon the breeding work of the present. The herd will improve in working ability and value or go backwards just according as the sire possesses and transmits good or poor qualities. Through selection the dairyman can control type and production in his future herd.

The safest method in sire selection is to choose a proven sire. By a proven sire we refer to one that has daughters in milk that carry the type desired and that are uniformly good milk producers. A sire continues to get the same general type of animals as long as he lives. By selecting a proven sire the dairyman eliminates much of the chance in breeding and thus insures the future.

Unfortunately, however, most sires find their way to the block before their qualities as breeders, either good or poor, have been demonstrated. The dairyman then must make his choice from among young, untried sires. By careful, intelligent selection he can still eliminate much of the uncertainty. The old adage "like produces like" must ever be kept in mind. Select a bull of the breed desired, of good type and from a dam, grandams, and families of good type and of proven high milk producing ability. Bulls inherit the milking qualities of the cows from which they came and pass these qualities on to their heifer calves. Study pedigrees and milk production records very carefully. The dairyman's whole financial future is at stake when selecting a sire. A good sire may increase production in the herd 50 to 100 per cent. An inferior one may decrease it by an equal amount.

Purchasing Sires Co-operatively

The cost of a good registered sire often seems prohibitive to the man with a small herd. Where conditions such as this prevail two or more neighbors often combine in the purchase of a bull. Where there is community interest in better sires a bull association may be organized to purchase three or more bulls thus providing, through exchange, for several years' service. Through partnership or association ownership of a high class sire, the cost to the individual is often much less than ownership of an inferior or scrub animal. The county agricultural agent in any county can supply particulars regarding association purchase and exchange.

Dairying is an important industry and seems destined to increase in importance as time goes on. Dairy products are essential to human welfare. Good dairy cows well fed and handled have always been money makers for their owners. The future holds no thought of fear for the dairyman with a herd of cows possessing good working ability. To maintain and increase efficiency in the herd the dairyman must ever be selecting animals through keeping records of production of his cows, weeding out the poorer ones, and replacing each successive sire with one of greater merit.

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Edgerstoune's Luxury Bond
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Edgerstoune's Luxury Bond
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Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home--joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.
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Butter,	7 days	.....	36.50 lbs.
Milk		.....	631.3 lbs.
Butter,	30 days	.....	147.35 lbs.
Milk		.....	2,556.4 lbs.
Butter,	365 days	.....	1,231.75 lbs.
Milk		.....	26,053.6 lbs.

This record of better than 1230 lbs. butter in a year was finished last winter, with the first lot of yearly record cows ever carried on test at the Newberry State Hospital. Her half sister, Northern Aaggie Longfield, on test with her, finished with 1147.9 lbs. butter and 26,074.9 lbs. milk.

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Iowana Ona King Pietertje Born July 25, 1923

A son of Meadow Holm Ona Hartog King, and from a daughter of Sir Johanna Fayne. His dam has a good two-year-old record and is dam of a 950-pound junior three-year-old.

Bull is three-fourth white and a fine individual.

Send for pedigree and particulars.

IOWANA FARMS (*Herd under Fed. Supervision*) Davenport, Iowa



Sadie Gerben of Home Farm

A Producing and Transmitting Dam

This wonderful cow is one of the greatest daughters of Sir Sadie Cornucopia; she is completing a record of about 1000 lbs. butter; her daughter by K. K. S. V. 24th has 850 lbs. butter as a jr. 3-yr.-old. Her son by the same bull is the sire of some splendid bull calves we offer from large record dams. Pedigrees and photos on request.
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Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.
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Herd tuberculin tested. Write for information or visit herd.
P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.



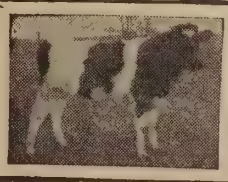
FOR SALE—A SHOW BULL
Born November 1st, 1923

His sire, sire's dam and grandam are all show animals. His sire's dam is Minnesota's only 30-lb. 2-year-old. She also has a good 305-day record as a yearling with an average test of 4 per cent. His own dam, a daughter of Sir Walker Segis Homestead, has a record of 17 lbs. of butter in 7 days and 532 lbs. in 305 days at 26 months of age.
He's guaranteed. Write for pictures and pedigrees.
A. H. BRUCE Northfield, Minnesota



Dean Homestead Ormsby Born Dec. 31, 1923

Sire, **DEAN OF THE ORMSBYS**, a son of Sir P. O. M. 37th, out of Colantha Pietertje Lass, a 1265-lb. daughter of Sir Pietertje Ormsby Mercedes. Dam, **LASHBROOK FAY HOMESTEAD**, a beautiful two-year-old daughter of Sir Walker Segis Homestead, a show heifer now on yearly test.
THIS IS A REAL BULL CALF, ONE YOU WILL LIKE TO OWN
PRICE ONLY $250.
Send for pedigree and photo.
A. J. LASHBROOK, Northfield, Minn.



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Born April 18, 1923. Sired by Sir Walker Segis Homestead, a son of "PIEBE" from a 1230 lb. former world record daughter of "COUNT." Dam—a 22.38 lb. 2-year-old, 615 butter, 16000 lb. milk in 305 days and now making 26 lb. in 7 da. as 3-year-old. One of 29 A. R. O. daughters of King Segis Pontiac Fayne Star, the best proven son of "COUNT". Price $350.00. Write for photo and pedigree.
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You Can Raise a Crop of Granddaughters of the
Highest Yearly-record Butter Bull in World
— For His Nearest Three and Seven Dams —
PRINCE AAGGIE OF BERYLWOOD

His dam has just made a world's record by producing nearly 1,100 pounds of butter on two milkings per day, being bred to qualify in the 305-day Division

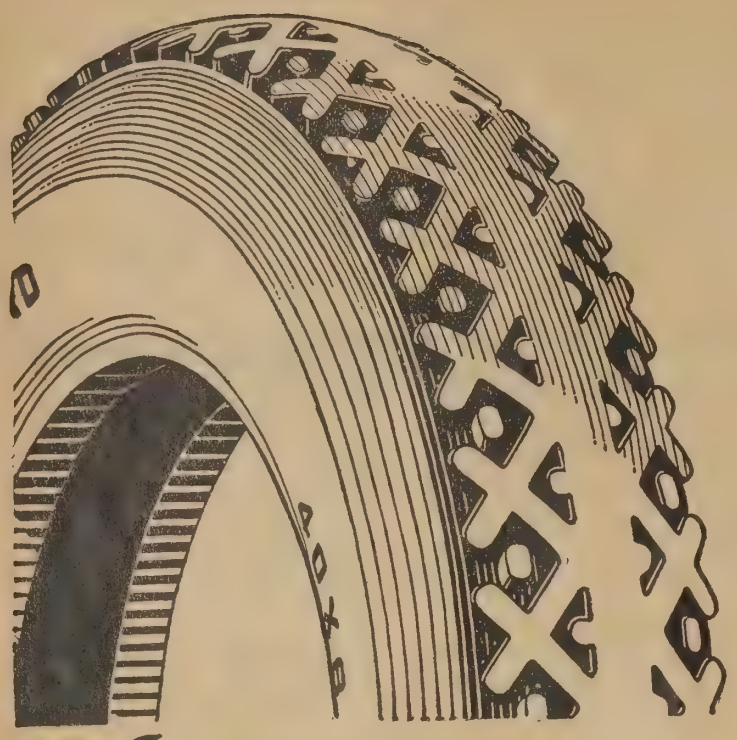
His nearest three dams averaged 1283 pounds butter; and their milk averaged 4.14% fat. His nearest seven dams averaged nearly 1200 pounds butter.
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—hot-riveted frame connections—no give anywhere.

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HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII, No. 2 Fort Atkinson. Wisconsin July 25, 1924

THE MODERN PARABLE OF WEEDS

S. R. WINTERS, Washington, D. C.

THE Biblical parable of the tares and wheat is an old, old story of how noxious plants interrupted the growth of productive agricultural crops. Today farmers are still confronted with the problem of eradicating weeds that stifle the life of farm crops. The noxious plants are of increasing numbers, some of which are harmful to field crops while others are poisonous to live stock. The morning glory, Canada thistle, sow thistle dodder, quack grass, garlic, snake root, wild turnip, and wild radish are among the more common enemies of the noxious weed family which are to be combatted by farmers in 1924.

Nelson County, North Dakota where the sow thistle is said to endanger the agricultural industry, is an example of the organized effort necessary to combat noxious weeds in North Dakota. The plans of attack in 1923 included the inauguration of a publicity campaign in April. This exploitation contained a description of the plant, its nature and habits of growth, and an indication of its infestation in this country. Two circular letters in June and another in July were issued, scheduling meetings in nearly every township. Furthermore, the farmers were informed of the seriousness of this pest. The results of this organized effort were as follows: Three weed commissioners were appointed; sixteen meetings were held, representing a total attendance of 427 persons; eleven committees were appointed to assist in rounding up complaints of neglected patches of weeds; and 783 patches of weeds were located.



CLARE A. MEHARRY, TIPPECANOE COUNTY, INDIANA, CLUB BOY IN HIS FIELD OF SOY BEANS

Canada Thistle

The prevalence of Canada thistle in Rock County, Minnesota, is being combatted by the sowing of alfalfa as an eradication agent. Demonstrations conducted by M. E. Teeter, county agricultural agent, for the past two years have shown that a thick growth of this legume will stifle the Canada thistle. The soil is pulverized thoroughly and the alfalfa seed sown in early summer. The second season of the growth of this legume revealed the presence of only a few thistles. And during the third season of the growth of alfalfa there was a total absence of this pest.

The methods of destroying the Canada thistle in Lyon County, Iowa, involve one of three experiments; First, plow the land in late spring and seed to some smother crop such as sorghum, sudan grass, or millet. After this crop is removed in the fall, the land is cultivated so that the thistle will not thrive. The following season the soil is planted to corn or some crop requiring cultivation. Second, plow the land in early fall, after a crop such as oats has been harvested, deep enough to penetrate beneath the underground horizontal root system. The thistle plants are then raked and harrowed, the roots being destroyed. The soil is then cultivated until freezing weather so that the remaining thistles cannot grow. The succeeding year this land is planted to a crop requiring cultivation. Third, plow the land infested with thistle in early spring and cultivate it throughout the growing season in order to stifle the growth of this pest. A cultivated crop is planted the succeeding year.

Morning-glory

Experiments in Monterey County, California, involved the use of carbon bisulphide in eradicating morning-glory. A farm adviser used three plots of infested land for these tests. In the first plot, the holes for containing the carbon bisulphide penetrated to a depth of six inches; in the second plot, the holes were twelve inches deep; and in the third plot, the holes attained a depth of eighteen inches. The holes were spaced at distances of two, four, six, and eight feet. The amounts of carbon bisulphide used in each hole were one, two, three, four, and five ounces. The most satisfactory results were obtained in the holes eighteen inches deep and three feet apart, with four ounces of carbon bisulphide in each hole.

Garlic

With 12,000 acres of land in Pike County, Indiana, infested with garlic, a concerted movement is in progress to eradicate this pest. Dubois County, in the same state, is conducting a similar campaign as the result of a joint meeting of farmers, grain dealers, and cream buyers. A preliminary conference was held with the grain dealers in order to ascertain their attitude on the subject, whose expressions attested to the seriousness of garlic. Seventy persons attended this meeting, many of them signifying the intention of ridding their farms of this pest. The clean-culture method has been adopted in Dubois County, Indiana, as a means of eradicating garlic. Community meetings were held in this county and addresses were delivered by representatives of the grain and cream trades. A representative from Purdue University devoted considerable time last summer in that section to prevent the spread of garlic.

Poison Plants

A poison-weed survey in Clinton County, Indiana, indicated that live stock was sustaining losses by reasons of the presence of poisonous plants. Sheep and cattle had died from trembles on two farms, the effects of having eaten snakeroot. On another farm where a stock raiser had sustained losses of three sows in a mysterious manner, water hemlock was found in abundance. Since that time exhibits of both snakeroot and water hemlock have been displayed conspicuously in a window in Frankfort and an article explaining the nature of these poisonous weeds published in the local newspapers.

Dodder

Objectionable weeds in Idaho are being eradicated by spraying. For instance, dodder is being eliminated by a sodium arsenate spray. The latter is prepared by the United States Smeltering, Refining, and Mining Company of Salt Lake City, Utah, and it takes the name of "Ussco weed-killer". Dilutions of one part of "Ussco" to fifty parts of water and one to four hundred parts have been employed, respectively. Dodder is thus killed completely if the spray is applied in the early stages of growth. Two, three, and four applications of sodium arsenate will eradicate Canada thistle and morning-glory has been killed by this same treatment to a depth of twenty-four inches.

South Dakota is employing a novel method for controlling noxious weeds. A herbarium—a book containing the history of various weeds—is maintained. This book was fashioned from a discarded tailor-made cloth sample book. The names of the different weeds and bits of descriptions are thus permanently recorded. It is displayed at picnics and other gatherings of farmers, at which time the characteristics of the Canada and sow thistles are discussed. Moreover, the farmers in South Dakota are plowing to a considerable depth as a means of eradicating the Canada thistle.

AN IOWA HOG HOUSE

C. M. FRUDDEN, IOWA

A PRACTICAL hog house for a little money is to be found on the farm of Mrs. S. H. Trask of Iowa. The labor was done at odd times by farm help. This model piggery is 20x32 feet in size. It has a four foot feed alley through the center. The side walls are three feet and six inches high.

The outside walls are framed of two by four studding placed two feet



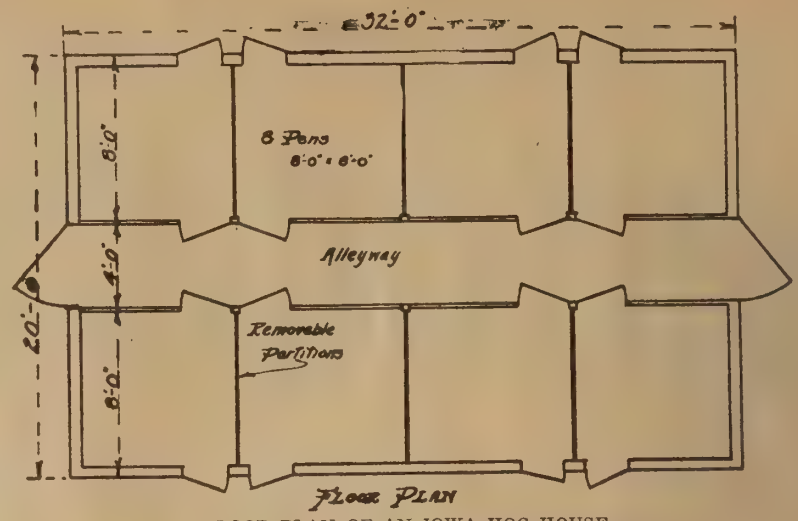
HOG HOUSE ON FARM OF MRS. S. H. TRASK

on centers and with six inch drop siding. This makes an economical, warm, and quickly erected building. Rafters are two by fours placed two feet apart, covered with eight inch shiplap and slate surfaced roofing. This type of roof adapts itself very well to hog house construction, as it allows for a low side wall and still gives sufficient head room over the entire floor because of the first rafter being nearly perpendicular. The building is placed running north and south. There are two rows of roof windows on both the east and west roofs; one row being at the ridge, and the other at the first hip. This arrangement catches the early morning and late afternoon sun, as well as the noon day rays. The building is only eleven feet high over-all. This means little waste room overhead and a house easy to keep warm.

This size house allows for eight pens, eight by eight feet in size. This makes an ideal sized room for the average pig litter. Partitions are made of six-inch rough boards cleated together and made removable in sections. The small door leads from each pen to the outside feed floors on either side of the house.

Two revolving cupolas and four inlet openings take care of providing fresh air for Mr. and Mrs. Hog and their little ones. The ventilators are placed on the ridge and are connected with canvas sacks which lead down to within two feet of the floor. The fresh air from the outside enters under the eaves and passes up the boxed-in rafters. This provides for an economical and successful ventilating system. The warm fresh air is retained in the building, and only foul, cold air on the floor is taken out. The system can easily be shut off during the coldest days by merely tieing a cord around the canvas outlet bag.

Eighty sacks of cement were used to make a good foundation and floor.



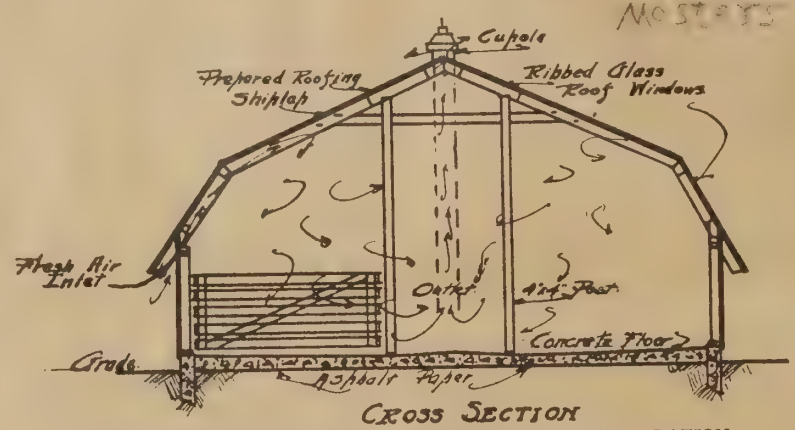
FLOOR PLAN OF AN IOWA HOG HOUSE

The outside foundation walls were run up eight inches above the grade line so as to keep the wooden frame work dry. The cement floor was laid as follows: Gravel was hauled in and placed over the entire floor about six inches thick. Then a layer of old asphalt roofing was laid over the gravel and the four-inch concrete floor poured on top. The idea of using the roofing paper was to prevent any dampness or frost from coming up from beneath. The floor was well sloped to the center alley and from there to either end door.

With this dry and warm floor, the successful ventilating system, and the many well placed ribbed glass roof windows diffusing the rays of the sun over the entire house, this investment has proven to be a good one. The upkeep expense will be small and its years of usefulness beyond number. This house is yielding healthy pigs in record time.

A complete list of materials used and their location in the building, follows:

80 sacks Portland cement—floor and foundation.
32—2"x4"—16' plates and sills.
13—2"x4"—14'side wall studs.
11—2"x4"—12' end wall studs.
17—2"x4"—14' rafters.
6—4"x4"—9' alleyway posts.
3—2"x4"—10' rafter ties.
932 ft. 8" shiplap for roof.
600 ft. 6" drop siding for side walls.
172 lin. ft. ¼ for trim.
112 ft. ¼ flooring for doors.
4—1"x6"—16' for door cleats.
9 rolls slate surfaced roofing for roof.
16 single roof windows.
2 suction ventilators.
6—1"x6"—16' rafters ties.
23—1"x6"—14' rough for partitions.
19—1"x6"—16' rough for partitions.
4—1"x6"—12' rough for partitions.



CONSTRUCTION DETAILS AND PROVISIONS FOR VENTILATION

Upper Michigan's Dairy Special

L. D. TUCKER, MICHIGAN

PREACHING the gospel of better sires, better feeding, better breeding, and weeding, the Cloverland Dairy Special, June 2 to 21, toured the Upper Peninsula of Michigan visiting 39 different communities, leaving in its wake not only more knowledge and light in the modern practices of dairying, but a trail of 37 pure-bred, pedigreed bulls, 20 Holsteins and 17 Guernseys, to "carry on". The total attendance at these meetings was estimated at 4,000 farmers.

The Special consisted of two live stock coaches, one flat car for display purposes, a day coach, a Pullman, and a diner. The train was the combined result of the co-operation of the five railroads operating throughout the Upper Peninsula of Michigan, the Michigan Agricultural College, the Upper Peninsula Development Bureau, banks, and various other agencies. It carried stock for both demonstration and sale purposes. Included among the sale stock were these pure-bred, pedigreed, registered dairy sires.

Accompanying the train were some dozen or more dairy specialists who participated in the program at each stop. The program included talks on breeding, feeding, the organization of bull and cow testing associations, financing the dairy herd, marketing the product, and, in fact, practically every phase of modern dairy management. And there was a live and kicking animal carried along to emphasize every argument.

For instance, there was old Gun Powder, the lowliest scrub cow that ever rattled her meager offerings into a rusty pail; last year she gave about 3,000 lbs. of milk. Standing next was her daughter from a pure-bred sire, who doubled the production of her low-caste parent in an annual test. Lo and behold, next was the granddaughter, likewise from a pure-bred, whose annual production record more than doubled that of her mother.

And there was His Majesty, the pure-bred sire, with a placard above him showing what he contributed to humanity through the production of his offspring. Right beside him, somewhat belittled by the comparison, was the nameless scrub sire.

At each stop following the demonstration, farmers had an opportunity to purchase pure-bred bulls carried on the train for distribution. As a result of the splendid co-operation of D. L. McMillan, newly appointed county agricultural agent in Chippewa County, seven pure-bred bulls were sold in that region. The prize "bid bull", consigned to the train from the pure-bred herd at the Newberry State Hospital, went to two Finnish farmers at Bruce's Crossing, who bid $211 for the animal. This thirty-two pound bull was offered along the route to the highest bidder. The bids were sealed and opened upon the completion of the itinerary.



Upper Michigan's Dairy Special was an unqualified success. This picture shows the Special "in action" enroute.

Here is a typical incident enroute. Three husky looking Belgians stepped up to one of the dairy specialists whom they chanced to meet on their way through the car and said, "Meester, you show us those pure-breds. We buy—maybe." They were lead back into the rear car and there given their choice of animals on display. They were also given the benefit of a price which, with the freight and other incidentals, would have been about double had they bought direct from the breeder.

So there at Beaver, in the Upper Peninsula of Michigan, those three Belgians bought their first pure-bred bull, organized their bull association before leaving the train, elected their president and secretary, paid their money, took the animal and his record sheets—and went off home to build three more dairy herds for Cloverland, the Upper Peninsula of Michigan.

Saved By a Hair

A glib oil stock salesman in the Southwest had just finished describing the glorious opportunities of his propositions to a prospect with the question: "What do you think of it?"

"I think," slowly drawled the previously bitten prospect, "that there is just one thing that saves you from being a bare-faced liar."

"What is that? asked the startled salesman.

"Your whiskers."

EVER FAILING OR NEVER FAILING PASTURE

Eighty Farmers' Experience With Sweet Clover

Part 4.

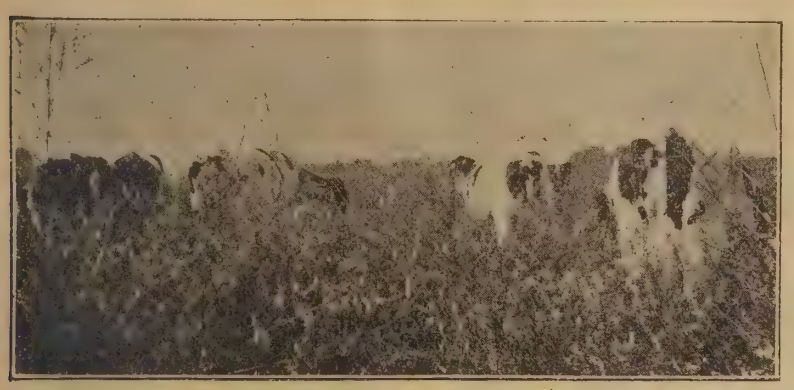
WILBER J. FRASER, University of Illinois

The combined experience of 81 dairymen is: That three-fourths of an acre of sweet clover pasture is an ample allowance to furnish sufficient feed for a cow for six months.

That the deep-rooting qualities of sweet clover enable it to resist drought and furnish abundant feed during July, August, and September when bluegrass pastures are frequently dried up.

WITH the ever recurring failure of bluegrass pasture in the chief dairy states, and with the expensive and laborious system of summer feeding that is necessary when it does fail, the dairyman naturally asks whether there is any other pasture crop that will supply plenty of suitable feed for his cows throughout the summer. The quest for such a pasture is highly important, because it is just as necessary in economic milk production to have good pasture for summer feeding as to have corn silage and legume hay for winter feeding. Because sweet clover gave promise of being such a reliable summer feed, I began raising it on my farm in Northern Illinois ten years ago. The results were so promising that I have spent considerable time during the last few years studying this crop wherever possible.

To continue this study, I sent a questionnaire to a large number of farmers in different parts of Illinois, whose names were furnished by farm advisors, as having had experience in pasturing sweet clover with dairy cows. The questions asked were about the carrying capacity, length of the pasture season, production of milk while on sweet clover pasture, whether the cows were troubled with bloat, the effect of this pasture on the flavor of the milk, and, finally, the farmers' opinion as to the value of sweet clover pasture as compared with bluegrass for dairy cows.



Sweet clover on L. D. Wilson's farm in Central Illinois, still produced an abundance of fine feed August 9, when bluegrass pastures were nearly dried up.

Carrying Capacity Three-Fourths Acre Per Cow

On the 81 farms from which reports were received from men who had experience in pasturing dairy cows on sweet clover, there were 972 acres of sweet clover pastured the first fall, after it had been sown in small grain in the spring. This area pastured 1,288 cows (or cow equivalents in other stock) *making an average of .75 of an acre per cow.* Nine hundred and sixteen acres of sweet clover were pastured the second year with 1,367 cows, *making an average of .67 of an acre per cow.*

The sweet clover was sown with small grain in the spring and pastured that fall and the following summer, *the one seeding of sweet clover furnishing pasture for an average of 190 days.*

The actual experience of these farmers is that sweet clover makes a record far better than "a cow per acre". It took only three-fourths of an acre of sweet clover to pasture a cow on these 81 farms. That is the average efficiency of sweet clover pasture. These were not a few exceptional cases but the common experience with sweet clover in all sections of the state and under all the varying conditions on these farms. It is the trustworthy average of 81 demonstrations in practical dairy farming that sweet clover pasture has four times the carrying capacity of bluegrass.

Six Full Months of Good Pasture

A most important fact to be learned from the experience on these 81 farms is the length of the pasture season—six months. It differs 19 days between Northern and Southern Illinois. On the average, dairymen in Southern Illinois can turn their cows out on sweet clover pasture by April 15, and it will furnish pasture until about November 1—six and a half months. In the northern part of the state, they can usually turn out by April 25 and can keep the cows on the sweet clover pasture until approximately October 25—six months. *Six full months of good pasture,* capable of supporting well over a cow to the acre, is a tremendous item in the cost of the year's feed and the resulting economy in milk production.

The Old and New Clover

The management of sweet clover pasture requires the seeding of biennial white sweet clover each year in the small grain. The cattle begin in the spring on the second year's crop which comes on early. They graze on this until the middle or last of August, when they are turned on the new clover in the stubble, and use it until the latter part of October. The old clover and the new seeding are growing on the farm each year, and the six months' pasture is partly from the one and partly from the other. The pasture requires but one year's use of the land, however, because a crop of small grain is cut from the same land on which the clover grows the first year. The expense of the ground is chargeable to the clover for only one year—the second year of the clover's growth.

The average length of time cows are on the first year's growth in the fall is 80 days in Southern Illinois, and 60 days in Northern Illinois.

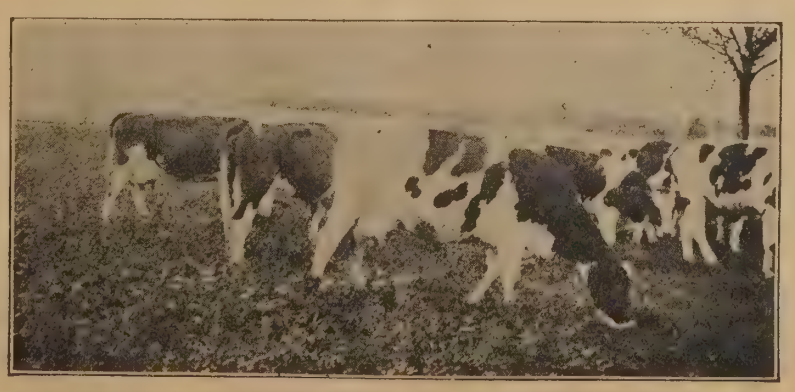
Thirty-two replies to a questionnaire upon sweet clover pasture sent out a year ago, and reported in Hoard's Dairyman April 27, 1923, showed a carrying capacity fully equal to that reported this year—.67 of an acre per cow—and a pasture season of 5.6 months.

Most Drought-resistant Pasture

The established fact from this farm experience and the four years' bluegrass test at the University of Illinois is that sweet clover has a six months' pasture season and a carrying capacity of three-fourths of an acre per cow, while bluegrass furnishes pasture for only about two months and requires over two acres per cow. The principal reason for this advantage is that sweet clover does not fail in time of dry weather.

The total advantage of sweet clover, however, is far greater than that resulting from four months' increase in pasture season, and its far greater carrying capacity, when we consider the extra labor and expense of providing supplementary feed when bluegrass pasture fails. The cow's requirement is continuous throughout the summer, and the greatest need is for an abundant pasture in the trying time of flies and excessive heat, which is just the time when bluegrass fails so miserably to supply sufficient feed. In order to solve the pasture problem economically, we must have an ample and continuous supply of feed for the six months of summer, and sweet clover provides this.

All these answers from the 81 farmers made it clear and positive that *the sweet clover stayed green and fresh throughout the hot and dry weather of July and August when bluegrass pastures were burned up.* This means that with sweet clover the six months' pasture season is *really a season of pasture from beginning to end,* with fresh, green feed in abundance at all times for the cows.



Ed. Rehling's cows in Southern Illinois on sweet clover that was six inches high May 10. They had been on this pasture nearly three weeks—two weeks earlier than the cows should be turned onto bluegrass.

The result in maintained milk flow, in condition of the cows, and in decreased labor, only men who are feeding and milking cows can fully realize and appreciate. Sweet clover is thoroughly dependable. It goes down deep for its food and moisture, and is a hardy continuous grower, holding its rich green color until it dies naturally in the latter part of August—the time when the young, green plants can be turned onto. These are the very great advantages of this deep-rooted legume.

Milk Production on Sweet Clover

The production of the cows while on sweet clover pasture, as reported by the 81 dairymen, varied so greatly, depending upon the individuality of the cow, the stage of lactation, and the amount of supplementary feed given, that it is impossible to draw definite conclusions upon this question; and yet it is evident that they did not lack for plenty of good, nutritious pasture which stimulated them to high milk production.

Most of the farmers reported that they were highly pleased with the production of their cows when on sweet clover pasture and several reported better production on sweet clover pasture without grain than on such an excellent winter ration as corn silage, legume hay, and a good grain ration.

One cow on my own farm produced 56 pounds of milk per day on sweet clover pasture without grain, and I have seen several other cows that produced this amount or more per day on sweet clover pasture without grain. One of these cows, belonging to Mr. Renschen, of Clinton County, produced 75 pounds of milk on three milkings per day without grain. On sweet clover pasture alone without grain, Mr. J. O. Tupper, of McHenry County, had a cow produce an average of 54 pounds of milk per day for four months, and a two-year-old heifer an average of 48 pounds for one month. Here is high evidence of the long time feeding value of sweet clover for dairy cows.

The answers on other points of the questionnaire, dealing principally with the common objections to sweet clover, must be reserved for the next chapter.

The Inventor's Manual

The faculty of inventing is possessed by almost everyone. You may have invented some little device which you are using in your home or in your every day work that is patentable and for which there is a good market. The Inventor's Manual, published by the Norman W. Henly Company of New York City, tells in a simple, interesting fashion the whole process of invention, patenting, and making the patent pay. The book was written by George M. Hopkins, a successful inventor of twenty-five years' experience, and the third revised and enlarged edition, now ready for distribution, contains notes based on the experience of many other inventors. Some of the subjects treated in this volume are How to Invent, How to Secure a Good Patent, Value of a Good Invention, How to Estimate the Value of a Patent, How to Interest Capital, Advice on Selling Patents. The book also contains the 1920 census by occupation, and by population in counties over 10,000. The Book Department of Hoard's Dairyman can supply the manual upon receipt of the regular price, $1.50.

Flowers make a house a home.

South Florida Dairies

ELEANOR BISBEE, FLORIDA

THIRTY new dairies started in one county during one winter indicates the rate of growth of the dairy industry at the southern end of the state of Florida where, at one time, it was claimed that cattle could not live. As soon as there were enough people to constitute a market, pioneers found a way to keep cattle alive.

Now this is the land where the amateur dairyman vies with the man of 30 years' experience on almost equal terms, for conditions here are so different that the man who knows too much may do even worse than the man who knows nothing at all. There is more than local interest in this, for already the world has had to bow to a Dutch Belted cow of Dade County, Fla., that holds the world's record in that breed for milk production; already it has found a rapidly growing market for good dairy stock at the southern end of Florida, which sends buyers to herds all over the United States every year; already there is a herd in South Florida that challenges any other herd in the United States to equal its average production record; and then there are dairymen all over the United States yearning to know of a place where they can escape the rigors of winter and yet stay in the dairy game.

Here are some northern impressions of Florida dairying: "No good cattle can survive tick fever there." "It is not safe to take children south, because they cannot get good milk." "Southerners are too lazy to keep good stock." "There is nothing for cattle to eat in the Everglades except sawgrass and alligators."

Here are some facts, on the other hand, that can be verified in Dade County, Fla., the only truly subtropical section of the United States.

Dade and the adjoining counties were made tick free about eight years ago and whatever quarantines apply elsewhere against Florida cattle do not apply to south Florida stock.

The blue ribbon Jersey bull of the Dade County Fair in 1924 was Ixia's Fontaine Oxford, grand champion of the Vermont State Fair, 1920, and second at the Eastern States Exposition, whose former owner, J. G. Howland, of Quechee Falls Farm, Vermont, spent the winter near Miami, and became so favorably impressed with dairying conditions that he felt it desirable to place some of his finest animals here.

It is, however, a "cracker" dairyman who now has an enormously costly plant in the famous White Belt Dairy, which challenges any U. S. dairy to beat the average 365-day A. R. O. herd record of 9,998 lbs. milk and 412 lbs. fat, the tested herd including junior two-year-olds and seniors; and who is said to have the largest privately owned herd in America on the accredited T. B. list. That man is Dr. J. G. DuPuis, president of the National Dutch Belted Cattle Association, whose cow, "Gem of Columbia", holds the world's production record for that breed.

Sawgrass and alligators have surrendered to drainage in enough of the Everglades to prove their value for cattle. Largely due to the pioneer work of James H. Bright, former stockmen of St. Louis, satisfactory grasses have been found. Para and napier are the two most popular at the present time, although lespedeza which is being so popularized in Mississippi as the alfalfa of the South, is easily grown as are also paspalum, guadura, Seminole, and Nassau corn.

So much for the trend of dairying interests in South Florida. It has its problems also. South Florida dairymen, as pointed out, are entering the northern markets to buy good stock. A few years ago it was said that light skinned cattle could not stand the southern sun and that stock imported in the summer would not live. The first milk week campaign, held about four years ago, so increased the demand for Dade County milk that venturesome dairymen brought in the first carload of cows in August and they all lived and did well. Now August and September, the latter the hottest month here, are times of heavy importations, nearly 20 carloads having been brought in last year.



FIELD OF NAPIER GRASS IN DADE CO., FLORIDA



A FLORIDA WORLD'S CHAMPION

Gem of Columbia, owned by Dr. J. G. DuPuis of Florida, holds the world's record for production in the Dutch Belted breed.

Production per cow is the vital thing here. Milk sells at 20 to 25 cents a quart the year round. It is too expensive to feed to calves, and, except for the satisfaction of knowing what one has, it is conceded to be as cheap to import stock as to raise it and yet half of many of the best herds were born and raised in Dade County. Concentrate feed is variously estimated at $10 a ton more or sometimes double the cost of the same feeds in the North. At $125 a head and with high feeding costs, dairymen cannot afford to keep boarders. One producer, the son of one of the pioneer dairymen, says he is getting as much milk now from 50 head as from 80 formerly, merely by increasing the feed and getting rid of the boarders.



CUTTING PARA GRASS IN JANUARY ON A FLORIDA FARM

Milk week campaigns are doing wonders in Miami. The first one stimulated a demand that nearly doubled the number of dairies. The succeeding ones have not only had a great temporary effect but lasting results. Miami, the main retail market, has a permanent population, including its suburbs, of nearly 75,000, but it has a winter population of about 150,000. A summer surplus is a constant dread of many dairymen and milk week seems the practical way to convince the many northerners in Miami that the old bugaboo of inferior milk in Florida is dead and that they should drink more milk.

Dade County was the first place south of Atlanta to have a certified dairy and that had its effect on the tourists as well as on the home people. It established confidence in one dairy and then visits to other dairies and study of the board of health monthly reports on each dairy revealed that many in the county have similar standards of cleanliness and quality. In a milk week in Miami, systematic education on the food value of milk and the importance of patronizing a home industry is supplemented by motorcades to visit the county's dairies that now represent an investment of more than $3,000,000.

The Dade County dairies are knocking at the doors of the national dairy interests for recognition as a factor in maintaining dairy standards in America. They aim high both for stock and products, they achieve gratifying results and they enlist the active interest of consumers. Woe be to the northern dairies that put on the market a product inferior to South Florida's after their people have wintered in Miami and learned to drink milk!

Winter or Summer Freshening

HOARD'S DAIRYMAN:—The question as to whether cows freshening during the winter or summer months have the largest butterfat production and total value of product has urged the writer to present the following figures for evidence in favor of winter freshening:

	Cows	Fat lbs.	Fat value
March	19	219.2	$.55
April	14	252.7	.46
May	21	227.4	.44
June	18	236.8	.39
July	16	223.0	.36
August	20	258.5	.38
September	29	290.6	.46
October	25	279.5	.53
November	18	261.0	.57
December	21	239.0	58.6
January	25	275.4	.54
February	17	262.5	.56

The first column of figures represents the number of cows freshening during each month; the second column the average pounds of butterfat produced by those cows, and the third column gives the average price paid for butterfat during that particular month.

It will be seen that the average production of cows freshening during the spring and summer months beginning March and ending August was 236.3 lbs. fat, the month of March being the lowest with 219.2 lbs. fat. The cows that freshened in the fall and winter months beginning September and ending February had an average production of 268 lbs. fat, and September was the high month with 290.6 lbs. fat.

It can also be noticed that the price paid for butterfat by three creameries during the spring and summer months was 43 cents while 54 cents was paid during the fall and winter months.

From the fact that those cows freshening during the fall and winter months had the highest yearly records and that the price received for butterfat was highest during those months, it is evident that the total value of the product of those cows will be higher, since the largest production would undoubtedly come during the early part of the lactation period when the butterfat prices are highest.

Iowa. OLIVER CONSTABLE.

Uncle Ab says he's never known anybody who didn't improve on acquaintance; those he first thought good, proved even better; and those he thought wholly bad showed some good traits.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Penn.	Sharps.-Orangeville	May	R. H.	90.4	R. B. Hobart
"	Middle Bucks	June	R. H.	73.1	Cooke & Bennetch
Colo.	Brighton	"	R. H.	78.1	Mrs. R. G. Douglas
"	Boulder	"	R. H.	74.1	N. Anderson
"	Mesa	"	H.	84.3	F. Clymer
Mo.	Jasper-Newton	"	R. J.	59.8	J. Long
Mont.	Sanders 1	May	R. H.	112.3	A. Kruger
"	Flathead	June	G. H.	69.7	W. Scott
Calif.	Chelano-Sal. Creek	"	G. H.	68.6	C. A. Polzin
S. D.	Chester	"	R. H.	64.6	F. J. Krug & Sons
S. D.	Day Co.	"	G. G.	63.1	Becker & Hilderbrand
Kans.	Os.-Ly.-Franklin	May	R. H.	59.8	Bauer Bros
"	Washington	June	R. H.	63.4	J. L. Young
Utah	Wellsville	"	G. H.	70.0	J.Breuchley
Mich.	Montcalm	"	G. D.	66.9	Rossman Bros
"	Alpena-Leer	"	G. G.	76.4	J.Wong
"	Eag.-Watert'n	"	G. H.	68.6	L. Frost
"	Delta Co.	"	G. H.	64.1	W. Knaus
"	Sp.-W. Kent	"	G. J.	64.7	C. E. Moxon
"	Musk-Revena	"	G. H.	86.2	I. J. Bennett
"	W. Allegan	"	R. J.	64.5	T. Michols
Minn.	W. Dakota	"	G. G.	74.1	C. Pool
"	Martin	"	G. H.	67.9	P. Kumnrow
"	Cannon Val.	"	H.	61.2	E. A. Dibble
"	Scott Co. 1	"	R. S.	62.0	W. Luedke
"	So. Dak. Co.	"	R. H.	63.8	S. E. Van Slyke
S. D.	Hamlin	"	G. G.	64.6	A. C. Aronson
Ill.	McLean	"	R. H.	84.0	H. M. Wood
Iowa	Colesburg-Two	"	R. H.	67.7	F. W. Miller
Mont.	Bitter Root	"	R. H.	86.6	Ford & Hollister
Ohio	Summit 1	"	H.	76.3	A. M. Allen
Md.	Up. Montgomery	"	R. H.	106.0	M. Rice
Ind.	Clark-Scott	"	G. J.	71.6	W. W. Barnett
"	W. Hamilton	"	R. H.	74.6	A. Jordan
"	Spen.-Perry	"	R. H.	70.3	G. Aders
"	Steub.-La Gr.	"	R. J.	87.8	E. E. Hunter
"	Elkhart	"	G. H.	100.0	G. Davison
"	Dubois	"	G. J.	70.7	E. F. Caldemeyer
Iowa	Crystal Lake	"	G. H.	61.4	J. Ruoss
Vt.	Conn. Valley	"	G. H.	83.0	C. O. Sawyer
"	Gr. Heights	"	G. J.	57.2	Mrs. M. Nye
Ill.	Kane 3	"		76.4	J. H. Burr
Wis.	Byron	"	R. H.	74.4	R. C. McClain
"	Sheldon	"		50.4	C. M. Elkon
"	Sp. Gr.-Wyom.	"	G. G.	67.6	E. M. Hitchcox
"	Lakefield	"	G. H.	78.9	L. H. Meyer
"	Cen. Monroe	"	G. G.	77.2	W. E. Hubbard
"	Edgar	"	R. H.	69.1	L. Hart
"	Neillsville 1	"	G. H.	57.9	J. Seif
"	Dunn Co. 1	"	G. G.	69.9	Schutte & Reppe
"	Bruce	"	G. G.	55.3	E. F. Brainerd
"	W. Greenleaf	"	G.	72.5	W. Thiem
"	Mt. Hope-Lancaster	"	R. J.	76.0	P. J. Braudt
"	Colfax	"	R. H.	65.9	Helberg & Anderson
"	Fountain City	"	G. G.	69.0	H. Zastrow
"	Iola	"	G. G.	54.7	J. K. Severson
"	Leo.-Pel.-Tilleda	"	R. B. S.	69.9	F. Stefl
"	Columbia	"	G. H.	60.4	Townsend & Pashe
"	Arcadia	"	N.	61.0	J. J. Rumpel
"	Marion	"	G. H.	80.5	Arndt & Jueds
"	AL.-Cochrane	"	G. H.	60.0	J. Accola
"	Mon.-G.-Modena	"	G. J.	72.9	O. Heck
"	Ham.-Baldwin	"	G. H.	61.9	H. Gravink
"	Foot.-Evansville	"	R. H.	74.8	H. Broughton
"	Cross Plains	May	R. H.	93.8	A. Lorenz

Association Notes by Testers

Middle Bucks, Pa.: Farmers are sowing soy beans and expect to cut them for hay. Farming is not progressing very fast on account of the wet weather. The next meeting of the association will be held at P. B. Whitehead's in August. The high cow for the year, ending in March, is owned by C. J. Koller, Canary, a pure-bred Holstein, making 16,227 lbs. milk, 540.6 lbs. fat. The high herd in fat production, owned by W. S. Bishop, produced an average for 9.42 cows of 8,890 lbs. milk, 388.4 lbs. fat. H. H. Baum's herd of 7 cows had the highest milk production, their average record being 11,117 lbs. milk, 372 lbs. fat. Twenty-one cows produced over 400 lbs. fat. The average return for 306 cows tested was 7,724 lbs. milk, 384.3 lbs. fat. W. T. Wilkinson was tester in this association.—D. S. Taylor.

Mesa Co., Colo: The first month's work of this association shows a high herd average of 40.99 lbs. fat per cow. High priced feeds have been largely replaced by more economical ones. Three separators showed a loss of $1.50 to $3.00 per month. Market milk sold for $2.90 per cwt. and retailed for 12½ cents per quart. The creamery paid 37 cents per lb. for fat.—C. H. Boyd.

Sanders Co. No. 1, Mont.: Two new separators were purchased. Irrigated pastures are in good condition. One member expects to install a milking machine. Alfalfa is nearly all cut and stacked and in very good shape on account of the dry weather.—H. Engsberg.

Flathead, Mont.: Last month one herd produced fat for 3.9 cents per lb. and milk for 16 cents per hundred, while the highest cost for producing butterfat was 21 cents per pound and 94 cents per pound for milk. The re-organization meeting was held on June 14. R. E. Webster, State Dairy Commissioner, gave a speech. Market milk sold for $2.25 per cwt. and retailed for 10 cents per quart.—E. R. Ford.

Chester, S. Dak.: Another member is operating a milking machine, this being the third machine in use. Most members have alfalfa or sweet clover hay to harvest this year. Market milk sold for $2.00 per cwt. and retailed for 10 cents per quart. The creamery paid 35 cents per pound for fat.—A. J. Amberg.

Day Co., S. Dak.: One new milk house was built. All small grain in this section looks good excepting a few fields which were hailed out. Market milk sold for $2.00 per cwt. and retailed for 8 cents per quart. The creamery paid 38 cents per lb. for fat.—E. M. Duryee.

Washington Co., Kans.: Three herds were tested for tuberculosis; two passed clean and one had one reactor. Twenty-seven separators were tested. One that was doing poor work was replaced by a new one. The co-operative creamery paid 37 cents per lb. for fat; the cream stations, 31 cents. Milk retailed for 10 cents per quart.—H. G. Lenhert.

Wellsville, Utah: The 496 cows tested last month produced an average of 860 lbs. milk, 29.6 lbs. fat. Ninety-two cows produced more than 40 lbs. fat. A 7-block bull association has been organized. Alfalfa hay is selling for $10 per ton on the land. The hay crop is reduced in many localities because of the drought.—R. Hansen.

Alpena—Leer, Mich.: The increase of milk production in June over May was 32,000 lbs.; fat, 1,352 lbs. The association average was 711 lbs. milk, 30.1 lbs. fat.—C. Jennings.

Delta Co., Mich.: Twelve separators were tested. One lost 30 cents daily and another 23 cents daily. Four bulls were taken off the Cloverland special dairy train which traversed the Upper Peninsula the first of the month. Two new separators were installed. The creamery paid 37—38 cents per lb. for fat.—C. R. Olson.

Steuben—La Grange Co., Ind.: Two herds were tuberculin tested last month and 2 reactors found. Two cream separators were installed. Fourteen members are spraying cows daily.—G. M. Bell.

Sparta—West Kent, Mich.: Eleven members are feeding grain on pasture. Members are getting ready to cut their alfalfa. Most of them intend to make two cuttings instead of three. The condensery paid $1.75 per cwt. direct ratio for 4 per cent milk. The creamery paid 39-40 cents per lb. for fat.—L. Woodhams.

West Dakota Co., Minn.: In June one member sold 16 unprofitable cows out of a herd of 24. Most everyone is putting up hay which is a very good crop. Twenty-five members now have pure-bred sires. Ninety-two cows made over 40 lbs. fat or over. The association's average for June was 804 lbs. milk, 30.9 lbs. fat for 460 cows. Market milk sold for $1.80 per cwt.—L. L. Hammond.

Martin Co. No. 2, Minn.: One new silo was built. Members of this association are well pleased with the first cutting of alfalfa. Corn is looking good. The following shows the difference in production when milking 2 and 3 times per day. Last year a grade Holstein produced in 10 months 13,186 lbs. milk, 423 lbs. fat; feed cost, $78.75; gain over feed cost, $136.90, milking 2 times per day. This year this cow produced on 3 times a day milking, with the same kind of feed and care, in 5 months, 10,016 lbs. milk, 309.6 lbs. fat; feed cost, $52.22; gain over feed cost, $105.43. This cow was fresh about the same time both years, during the winter months.—H. A. Anderson.

Hamlin, S. Dak.: At this county's farm bureau picnic June 11 a milk testing demonstration was held. Also another demonstration was held at the boys' and girls' club camp on June 20 for the purpose of bringing out the benefit derived from cow testing. The creamery paid 36 cents per lb. for fat. Milk retailed for 8—10 cents per quart; butter, 45 cents per lb.—F. E. Hanson.

McLean Co., Ill.: This association re-organized with 29 herds for the coming year's work. For the month of June the average cow produced 692 lbs. milk, 30.8 lbs. fat, and made a return of $10.75 above the cost of her feed. Ninety-nine cows exceeded 40 lbs. fat. Milk retails in this section for 14 cents per quart; butter, 50 cents per lb.—H. R. Fletcher.

Colesburg—Two Co., Ia.: Two more cars of bran have been ordered for fall delivery. One car of mixed feed has been ordered for July to help out with the failing June grass pastures. The creamery paid 42 cents per lb. for fat.—G. H. Crawford.

Clark—Scott, Ind.: All but 4 of the 362 cows tested last month are grade or pure-bred Jerseys. Eleven members keep daily milk records. One member fed a good ration and raised his average 5 lbs. Sour cream brought 40 cents per lb. for fat; sweet cream, 45 cents. Milk retailed for 14 cents per quart.—W. W. Barnett.

Sheldon, Wis.: This association organized with 253 cows on test. There are 13 pure-bred bulls in the association. Six scrub bulls are used. There are 14 silos, 4 barns with drinking cups, and 9 modern barns. Six members feed grain on pasture.—G. E. Ronne.

Central Monroe Co., Wis.: Several separators were repaired. Many new silos are being built. One member replaced a double unit machine for a single unit so as to keep milk sheets. Several members averaged better than $14 per cow at the creamery. County tuberculin testing is now on and not many reactors are found. The leading cow, owned by John Muehlenkamp, has 545.6 lbs. fat to her credit and 2 months to go. The condensery paid $2.00 per cwt. for milk.—V. Sorenson.

Alma—Cochrane, Wis.: Two associations are now under way. Work is being done on the second annual report. Nineteen members purchased 115 gallons of fly spray this summer. More members are supplementing pasture with grain than ever before.—E. R. Bailey.

Mondovi, G. Modena, Wis: Five members are liming small fields and preparing for alfalfa either this fall or next spring. The splendid alfalfa crop in this section and the clover failure are convincing dairy farmers that alfalfa is the dairyman's hay crop.—W. E. Acker.

Crystal Lake, Ia.: The high cow for the past year has a record of 15,469 lbs. milk, 521.2 lbs. fat. The high herd for the year has a record of 9,879 lbs. milk, 334.7 lbs. fat. An abundance of alfalfa and sweet clover has been sown this year with prospects of a good crop.—H. W. Tiggeman.

Columbia Co., Wis.: Most every member feeds grain with pasture. One modern dairy barn and one silo are being built. Every member had his soil tested for lime. Alfalfa seeded by most every member this spring promises a good stand. The condensery and cheese factory paid 39 cents per pound for fat in June and the creamery, 39—40 cents. Milk retailed for 8 cents per quart; butter, 40 cents per lb.; cheese, 20—25 cents. The second year's work of this association shows that the 502 cows tested have an average production of 8,661 lbs. milk, 305 lbs. fat. Seventy cows made over 365 lbs. fat. Vosen Bros. had the high herd. One Holstein four-year-old has a record of 11,800 lbs. milk, 535.5 lbs. fat. Thirteen herds averaged over 300 lbs. fat during the year. Twenty-seven members have 42 silos; 17 have drinking cups; 19, swinging stanchions. The association is 100 per cent in pure-bred sires.—A. H. Weber.

Kane No. 3, Ill.: At the annual meeting of this association, Harry Averill was elected president and G. Dickeson was re-elected secretary and treasurer. The 627 cows tested during the year have an average production of 8,762 lbs. milk, 283.8 lbs. fat. Four herds averaged more than 350 lbs. fat. The herd of grade Holsteins owned by Melrne Bros. produced an average of 11,020 lbs. milk, 382 lbs. fat. During the month of June 586 cows made an average production of 863 lbs. milk 29 lbs. fat.—W. P. Schmit.

An Ohio Report

The Sharpsville—Orangeville, O., Cow Testing Association was organized April 1, 1922, with 25 members, comprising 347 grade and pure-bred cows. The average yearly production of these cows was 6,768 lbs. milk and 266 lbs. fat. During the present year the dairymen in this section formed an organization for better dairying and through the strength of this organization the association for 1923 increased the production of 400 cows to 7,483 lbs. milk, 297 lbs. fat.

Thirty-two cows of this number completed the year with more than 400 lbs. of fat. The highest averaging herd for butterfat was owned by Fred Diefenderfer with an average of 10,741 lbs. milk, 416.1 lbs. fat.

The highest averaging herd in milk production was owned by I. H. Miller and Sons, with 11,265 lbs. milk, 380.3 lbs. fat for 18 cows. Alberta's Victor Bonnie, pure-bred Jersey, owned by J. W. Morrison, completed a wonderful record of 9,046 lbs. milk and 539.1 lbs. of fat in 12 months. Bonnie was milked but twice a day and the greater portion of her roughage consisted of corn silage and timothy hay. What might be of interest to the young dairymen is that Bonnie was fed and cared for by a boy 16 years of age.

The highest individual milk record goes to a pure-bred Holstein, Della Alma DeKol, owned by R. B. Hobart. Her production of 14,423 lbs. milk, 435.6 lbs. fat was made under ordinary farm care on two milkings a day.

The increased production of 400 cows in association work for 1923 has made a total increase in dollar and cents to the members of $6,280. Can any one doubt the true value of cow testing work?

H. S. SERVICE, tester.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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General Manager - - - FRANK W. HOARD
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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

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Says Sam: This is one year when there are more rainy days than there are rainy day jobs.

Ladino Clover

Ladino clover is a large or "giant" form of the familiar little white or Dutch clover common in lawns and pastures. It is probably a native of northern Italy where, on the rich, moist soils in the Valley of the Po River, it has long been a favorite forage crop. Under favorable conditions Ladino Clover forms a dense mass of succulent herbage ten to twenty inches deep composed of large leaves borne on long stalks arising from creeping prostrate stems. With the exception of the seeds all parts of the plant are identical with those of common white clover except that they are much larger. The seeds can not be distinguished from those of white clover.

Ladino Clover is especially adapted as a pasture crop for rich, well-watered soils in regions of moderate temperature. It does not ordinarily succeed on poor soils and it is particularly sensitive to lack of abundant and continuous moisture quite near the surface of the ground, consequently it should not be sown in localities where severe surface droughts are to be expected. It withstands extreme cold except on heavy clay soils not protected by a snow cover, in which case the plants are likely to heave badly in late winter. It was formerly believed that Ladino Clover did not suffer from hot weather provided it was well supplied with water. Recent experience indicates, however, that the plants turn red under prolonged exposure to hot sunlight and the stand is weakened.

In the regions where it succeeds Ladino clover is one of the most productive and nutritious pasture plants known and is unquestionably one of the most palatable to live stock. Repeated instances have been reported where a field of Ladino Clover has carried the equivalent of from two to four head of mature stock per acre continuously from spring until fall. During this period the production of milk, meat, or other animal products per acre has been greater than that from any other permanent grazing plant. The fondness of all kinds of live stock for Ladino Clover has been illustrated many times by the animals leaving good fields of alfalfa, red clover, or the grasses to feed on the Ladino. The palatability of Ladino, in fact, is sometimes disastrous since rabbits, gophers, grasshoppers, and other pests sometimes feed on it so voraciously as to destroy it. Even live stock, and especially horses and sheep, sometimes destroy the stand by too close nibbling of the prostrate stems. There is a belief that Ladino Clover does not cause bloating of cattle as badly as other leguminous pastures, but this is uncertain. So far as known Ladino clover is not subject to serious injury by diseases and insects, except grasshoppers and other leaf-eaters.

While the peculiar characteristics of Ladino clover are not yet thoroughly understood there are evidently certain sections in which it is excellently adapted, while for other localities it can not as yet be advised. The most conspicuous success with Ladino has been had in the irrigated sections of southern Idaho and in the coastal regions of Oregon and Washington. The plant is also promising for irrigated districts in Colorado, Utah, northern California, and eastern Oregon and Washington. It does not thrive in irrigated regions in the Southwest. Without irrigation Ladino has been a success in northern Michigan, on overflow land along the lower Missouri River, on the lower Mississippi and its tributaries, and in scattered places throughout the central United States where the soil and moisture conditions were especially favorable. It has also been very promising as a pasture plant on some types of hill soil in the Appalachian Mountain region, provided, in most cases, it received a phosphate fertilizer.—U. S. Department of Agriculture.

A 1000-lb. Fat Producer



CHESNEY FREDA LOTHIAN

A PROFIT of $839 over cost of feed and bedding was realized from the milk produced in one year by Chesney Freda Lothian, the latest pure-bred Holstein cow to produce over 1,000 pounds butterfat in one year. In the herd of the Essex County Hospital, New Jersey, she produced as a six-year-old 26,478.2 pounds milk containing 1,036.96 pounds butterfat—equal to 1,296.2 pounds butter, according to the Advanced Registry Department of The Holstein-Friesian Association of America.

During the year this cow consumed 6,550 pounds grain, 7,000 pounds hay, 2,000 pounds beet pulp, and 3,500 pounds silage, the cost of which was $306. No pasture was available. An additional $75 was required for 150 bales shavings used for bedding. Her milk alone brought $1,220, which represents a wide margin of return on her original cost price of $400 when purchased a year ago.

Chesney Freda Lothian was born on the farm of T. D. Morely, Ohio. As a junior three-year-old she produced in a year 18,138.4 pounds milk and 834.5 pounds butter. She is the 82nd cow in the Advanced Registry of the National Holstein Association to produce in excess of 1,000 pounds butterfat in 365 consecutive days.—Extension Dept. Holstein-Friesian Ass'n of America.

Quality Dairy Products Needed

The dairy cow produces a food which is proclaimed from the national temples of science as essential to the growth and health of mankind. The men who own dairy cows and the men who put their products into marketable form are among the few favored sons for they have a powerful appeal to sell their goods.

Let us start with the man with the cow. If he has cows of good quality, properly cares for them, gives them good feed, good water and considerate treatment, it stands to reason he will get more milk of better quality than a scrubman with a scrub cow getting scrub treatment.

The manufacturer of dairy products, by giving the public a constant supply of honestly and intelligently made and attractively offered goods for market, can make his own market. Nothing can equal a piece of bad butter or a piece of unpalatable cheese to destroy the market and there is no reason for either finding their way to the table of the consumer except through ignorance, stupidity, or selfishness—all equally criminal in their effect upon the industry and unprofitable to the man who offers them. Nothing that man can say will sell butter equal to good butter and nothing makes people eat cheese comparable to a steady supply of real, first-class, good cheese that pleases the average human palate. There is more appeal or more butter, more cheese, and more ice cream from a mouthful of good tasting products than from all that can be told in words or print.

So the answer to more money and more profit will come from just plain common sense practices and common honesty. When the bad stuff is sold, the mischief it causes does not end there. The low quality goods costs producers of honestly made, high class products untold losses through slackening consumption and causing all to be measured by the yard stick of just butter and cheese.

The American people are not entitled to be classed as fifth, sixth, or seventh nation in consumption of milk, butter, and cheese. Why prate of possibilities of over-production when our markets are hungry for good dairy products? The market is ours for the making. We owe it to our country for better agriculture, to humanity for a safe, essential food, to make good for science and to ourselves and posterity for a better and more satisfactory business. Let us get the big thought out of this—nature calls for our products. Let us cater to the best in human appetite, do our duty and prosper through service to our fellowman.

W. E. SKINNER.

Those Who Work

I extend pity to no man because he has to work. If he is worth his salt, he will work. I envy the man who has work worth doing and does it well. There never has been devised, and there never will be devised, any law which will enable a man to succeed save by the exercise of those qualities which have always been the prerequisites of success, the qualities of hard work, of keen intelligence, of unflinching will.—THEODORE ROOSEVELT.

Teacher (in geography class)—"Can anyone tell me where Pittsburgh is?"

Small Voice (in rear)—"Please, ma'am, they're playing in Chicago. —Pitt Panther.

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, July 15—The decision of the U. S. Tariff Commission announced Tuesday afternoon, to investigate the tariff rate on butter, is received with very diverse feelings by various interests here. This is the fourth major agricultural duty which has been under investigation since the "flexible proviso" has been functioning, while no major industrial item or schedule has been investigated. A few minor industrial items have had attention, however.

The four agricultural items under investigation are or have been sugar, wheat, vegetable oils, and now butter. All four affect commodities, the domestic production of which run into tremendously large sums of money, nine figures in each account. The industrial commodities which have come before the Commission do not total a hundredth part of this sum.

The investigation, now under way, is at the behest of the Minnesota and northwestern dairy interests, and it is expected that they will take the leading part in the production of evidence to show that it costs more than eight cents a pound more to make butter in the United States than in foreign countries. If this is shown, the Tariff Commisson will recommend to the President an increase in the duty on butter.

⚜

The riddle, "when is oleomargarine not oleomargarine", has just been answered, much to the disappointment of the vigorous enforcers of the oleomargarine law in the Bureau of Internal Revenue and somewhat to the disquietude of the dairy industry, by a Federal Judge in Providence, Rhode Island. His answer in substance is when the oleaginous compound is packed in triangular boxes, and when "it can't fool my wife", as the judge remarked during the case. In other words, the Federal Court has declared that a product made of peanut oil and cocoanut oil, of the texture and appearance of butter, colored just like June butter, but put up in a triangular box and labeled by a trade name and called a cooking compound, is not oleomargarine and its manufacturer does not need to take out a license, subject himself to the inspection of the Revenue Bureau, or pay a tax for the sale of this product.

The case is disturbing the law enforcement officers, for they fear that it opens a door whereby the manufacturers may legally produce a product which can so easily be "bootlegged" as oleomargarine as to lead to wholesale frauds; also that this case constitutes a new definition by the court of oleomargarine very much different from the congressional and statutory definition.

⚜

C. E. Gray of the Golden State Milk Products Company spent a few days in Washington last week, coming here from Ames, Iowa, where he attended Commencement at Iowa State and received an honorary degree in recognition of his services and scientific attainments in the dairy industry. While here Mr. Gray interviewed a number of government officials as to the outcome of the recent supreme court case invalidating the 16 per cent moisture ruling. He is of the opinion that some clear-cut steps should be taken to clarify this situation to compel the acceptance of the same butter standard in both interstate and intra-state business. The Internal Revenue Bureau has not yet received the long expected Treasury Ruling on this subject which is being prepared by the Treasury Solicitor's office. However, in specific cases the Bureau has instructed agents to press pending cases where there is evidence both of a water content over 16 per cent and the use of a process or material for the purpose of incorporating this amount of moisture in butter.

⚜

The post-mortem examination of Sophie 19th, the record butter producing cow of the Jersey breed, has been performed and the scientists of the Dairy Bureau, under the direction of Professor Meigs at the Beltsville station, are studying the results. This, as told in a recent issue of Hoard's Dairyman, is part of a project in which the relation of "form to function" is to be studied widely and in great detail, as a part of the big general project of the Bureau to discover methods of fixing high producing strains among dairy cattle as high producing strains of grain and fruit can now be fixed through the discoveries of the plant industry scientists. It is known that the results found in the measurements of the internal organs of Sophie 19th were somewhat surprising. A complete statement will probably not be made for some time. The Bureau officials have plans made to secure the bodies of a number of other high producing animals of various breeds for continuation of the same study.

A Place for Everything

HOARD'S DAIRYMAN:—"A place for everything and everything in its place" applies to some farms and "nothing to be found when you want it" would suit others better. I have worked on farms of both sorts but the latter is not worth mentioning.

A Clinton County, Iowa, farmer used the first system and everyone who worked there or came there was impressed with the fact. Everything had a place and was in that place and in good working order when needed. This applied to his machinery as well as his tools and minor equipment. For instance, as soon as the corn was laid by the cultivator shovels were taken to town to be sharpened. When they were brought back they were greased and hung up, ready for use the next season.

His farm had many advantages not possessed by all and one of these was a concrete floor in one end of the large horse barn. One corner of this he used as a work shop. Along one side of the barn he had his work bench and a number of tools were hung on the wall in back of it. On a shelf above the bench were two cans of oil and several brushes. One can held harness oil and the other waste crank case oil for greasing tools. Whenever a spade or hoe or the like was used and returned it was cleaned off, rubbed with an old sack or some waste, and given a daub of oil. Tools and, in fact, much machinery seldom wears out; it more often rusts out. Greasing prolongs the life and makes a tool much easier to work with. It is but a matter of a few seconds to do this every time a tool is used, once a person gets the habit of it.

On one end of the work bench was a small home-made cabinet with each drawer labeled. Here he kept screws, washers, bolts, rivets, rawhide, buckets, and such for repairing harness; tacks, hog rings, and such like. Along the back of the bench was a row of compartments for nails of different sizes, each size in a separate compartment.

A boughten and one home-made chest held tools such as a rip and cross-cut saw, squares and level, planes, a set of chisels, and a set of bits in a special box, hammers, wrenches, and so on. When he wanted a tool he knew where to find it and it wouldn't be rusted either. His chisels were kept sharp and put away in that condition. An oilstone and an oil can on the bench left no excuse for not keeping them ready for use, and doing it then.

One end of the bench lacked several feet of meeting the wall. A strip of 1 in. by 4 in. across here made a place to stand shovels, axe, crow bar, rake and hoes, pick-axe, and short pieces of boards.

The log chains, pieces of rope, extra halters, and coils of wire were hung on separate pegs. If a rope or chain was wanted there was only one place to look for it. The same was true of the sacks which were in one place, laid over a wire between two studs on the wall.

Extra harness and pieces occupied another corner. All pieces of lumber that could be used were over the drive in the wide double corn crib or piled on two braces under the work bench. An old barrel was used as a junk catcher. This held the old tin cans, broken sections, rusty and bent nails, and such.

When the grain was cut the binder was put in the barn and looked over. If any repairing was necessary it was done then and everything was in readiness to start cutting next season without delay. The same was true after haying was over. The mower and hay loader not left standing in the field or barnyard until winter but put away ready to use when needed.

This man knows what he has, where to find it, and in what condition it is. No guesswork about it. His system does not cost anything but it is a time and step saver and can be duplicated on any farm. A collection of scattered tools and making some corner of a building a "shop" is a good system for everyone to have.

Iowa. A. M. WETTACH.

Ayrshire Breaks South Dakota Record

Starting her Advanced Registry record at four years and 265 days of age, Wisconsin Dairy Queen, an Ayrshire, becomes the champion producer of the state with 14,772 lbs. milk, 533.37 lbs. fat. Queen is owned by the Lampe Market Co. of South Dakota.—Ayrshire Breeders' Association.

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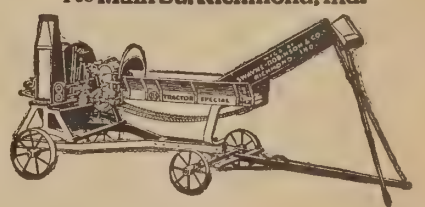
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EDITORIAL COMMENT



THE U. S. Department of Agriculture gives notice that there is another outbreak of foot and mouth disease in two counties in California, Tuolumne and Los Angeles, which involves six herds. These outbreaks occurred July 2, 4, 5, and 6.

It was hoped all the infection of foot and mouth disease had been buried and we were free from it, but it is perhaps expecting too much that a plague of this kind be quickly destroyed. This proves it a very infectious disease and that the greatest care must be exercised to suppress it.

The state and federal veterinarians are giving close attention to restocking farms that have been infected. They are using a few hogs and calves to determine whether there is any dormant infection, before permitting additional stock to be brought on the farm. It would seem every precaution is being taken to destroy foot and mouth disease contagion, but it still persists in a few places.

TUBERCULOUS CHICKENS

Several owners of accredited herds have been much disturbed in finding some of their hogs infected with tuberculosis. This has caused them to wonder if the tuberculin test has given a proper diagnosis of their herds or whether some animal, suffering from tuberculosis, has failed to respond to the test.

Investigations by the Bureau of Animal Industry have been made in several instances and it has found that hogs coming from farms owning accredited herds have been infected with the avian type of tuberculosis. It is common knowledge that chickens suffer from tuberculosis but not of the bovine type. It is a type which affects birds, and it is capable of being transmitted to swine.

The Bureau of Animal Industry recommends killing chickens showing signs of being unthrifty. It would be our suggestion that a post-mortem be held on chickens that have been killed because unthrifty, in order to determine whether they are suffering from tuberculosis. If they are, it would be better to dispose of the flock, clean the premises, and replace them with healthy chickens.

PAYING COWS

The second annual report of the Mt. Hope—Lancaster, Wisconsin, Cow Testing Association contains much valuable information. It sets forth clearly the different results obtained by the members of this organization. Twelve cows in 1923 produced unusually well. The lowest cow of this number produced 464.9 lbs. fat in a year; the highest made 810.7 lbs. The lowest cow in the association produced only 131.6 lbs. of fat. The high producing cow gave an income above cost of feed of $268.89; the low producing cow, $21.57. The one high producing cow was equal to a dozen of the low producing cows. These cows were owned by practical dairy farmers and kept for profit.

It must be admitted that the cow that produced 810 lbs. of fat in a year is an unusual animal and we cannot expect the average herd to equal this record, but it is ridiculous to hang on to cows capable of producing only 131 lbs. of fat.

In this same association there were 16 members whose herds averaged more than 300 lbs. of fat, the highest average being 469.5 lbs. The best herd returned an income above cost of feed of $144.36 per cow and the lowest of these 16 herds, $71.13. When 16 herds in one cow testing association average better than 300 lbs. fat per cow, the standard of 300 lbs. fat per year, on the average, is not too high for all dairy cows.

BACON HOGS

American bacon sells for 5 cents less a pound in the English market than does the Danish bacon. The extra price which the Danish farmer receives for his hogs, because they sell for a better price than the American hog, makes it possible for him to purchase 75% of his feed and at a higher rate than the American farmer pays for his feed. The freight on feed from this country to Denmark amounts to nearly $20 a ton. The Danish farmer has developed a special bacon hog and 60% of the live weight of hogs is made into bacon. It was a surprise to us to learn that such a high percentage of the hog could be made into a grade of bacon favored in the English markets.

The bacon hog is well balanced; it has an even distribution of flesh. He is not a bony structure with a high percentage of lean meat, but rather an animal with the proper proportions of lean meat and fat and a nice covering of fat on the back. The best bacon is obtained by feeding a ration consisting of about 60% of barley and 40% of oats, supplemented with a liberal amount of skimmilk and green feed. If skimmilk is not available, whey can be used and if neither of these by-products of the dairy can be obtained, then tankage. Corn is sometimes fed, but not more than 50% of the hog's ration should be made of corn. The remainder should be skimmilk and barley. Corn alone will not produce choice bacon. Hogs raised on what is termed a corn ration will be too fat.

PRODUCERS OF SURPLUS

"Thirty per cent of the cows in testing associations during 1922 did not return a net profit, although these herds averaged 61 per cent higher in production than the general run of cows in the state." This statement is found in Extension Bulletin No. 22 of the University of New Hampshire. This bulletin contains the records of 1,656 cows that in a year produced an average of 6,100 lbs. milk containing 244 lbs. fat. According to the bulletin, New Hampshire has 96,000 dairy cows and of these probably not over 50,000 are producing enough milk to warrant a profit. The remaining 46,000 are the surplus producers, and the product from these profitless cows determines the value of the product from the economical producers. Excess production lowers the price of the total crop, thus acting as a drag on the herds which are made up of individual profit makers.

No wonder a committee appointed by the New England Milk Producers' Association, to study a plan to remove the burden of surplus milk, stated that no method of marketing could be devised that would bolster up inefficient production methods. The elimination of the poor and unprofitable cows and a larger production of legume hays will do more to sustain the prices of dairy products and make dairying profitable than any other factors within the control of the dairy farmer.

We wish some of our readers would write us, stating why it is so many farmers keep cows that will not pay for feed consumed. Wherever the dairy cow is studied, invariably one-third of them are found unprofitable.

SWEET CLOVER vs. BLUEGRASS

Bluegrass pasture is so prevalent in a large section of our country and grows under so many soil conditions that it has been our chief pasture grass for years. It is a grass that comes on early in the spring and invariably provides late fall pasture. During the months of July and August bluegrass pastures are invariably short and this requires that the cows receive considerable feed from other sources. Bluegrass pastures are frequently neglected and as a result it requires more than an acre of land to carry a cow through the pasture season.

Professor W. J. Fraser of the University of Illinois, who has been devoting himself to the economical production of milk, has found that sweet clover will produce much more feed per acre and provide good pasture for a much longer period than bluegrass. Upon investigating the experiences of successful dairymen, we have found sweet clover a most satisfactory legume for pasture purposes. Professor Fraser has found that three-fourths of an acre of sweet clover will provide pasture for one cow for a period of six months and in some instances it requires less than three-fourths of an acre to provide all the feed a cow requires for making more than 50 lbs. milk per day. He has found many cases where practical dairymen have sustained high production for several months and the cows received nothing but sweet clover pasture. At first the cows may not take kindly to sweet clover but they soon learn to like it and it would seem that when their taste becomes cultivated to it, they like it fully as well if not better than bluegrass.

We are publishing a series of articles by Professor Fraser under the general title "Ever Failing or Never Failing Pasture". We commend these articles to the attention of those who desire to get larger returns from their cows when on pasture and for securing larger yields of feed per acre.

WHY NOT TEST STEERS?

The work of tuberculosis eradication is making splendid progress. Recently two counties in Kansas were declared free from tuberculosis. This means that all the herds in these counties have been tuberculin tested, reacting animals eliminated, and that there is less than 1 per cent of tubercular animals left in the county. These counties have passed the following resolutions:

"WHEREAS, since all of the dairy and breeding cattle and all other cattle located in Leavenworth County, Kansas, have been tested for tuberculosis in accordance with the rules and regulations governing modified area testing; it is therefore ordered:

"1. That no dairy or breeding cattle can be shipped into Leavenworth County, Kansas, without first having been tested for tuberculosis by a veterinary inspector of the Bureau of Animal Industry, U. S. Department of Agriculture, or an accredited veterinarian of the state where the cattle originate.

"2. Beef cattle to be used for grazing or feeding purposes can be shipped into the county on an affidavit that they will be kept segregated from all tuberculin tested cattle located in Leavenworth County.

"3. Anyone violating any of the provisions of the foregoing rules and regulations will be subject to the pains and penalties of the law."

It is our belief that all cattle coming into modified areas, regardless of what use is to be made of them, should be tuberculin tested. It is our opinion, based upon considerable evidence, that shipping in steers for grazing purposes has been the means of reinfecting clean herds.

Since it is an easy matter to apply the intradermal test, why not use it and not permit any animal to enter a modified area unless it has passed the tuberculin test? This would work no serious hardship on those who desire to feed cattle and it would eliminate one source of spreading contagion. One of the drawbacks to tuberculosis eradication work has been the failure to stop all source of reinfection. The farmers of this country now favor the eradication of tuberculosis but if those in charge of this work are careless and permit herds to become reinfected, there may develop the opinion that there is no use to attempt the destruction of this scourge.

Driving a herd of steers, which has not been tested, along public highways, placing the steers in pastures where they come in contact with other cattle or permitting them to drink from streams which may lead through pastures where clean herds are kept, may spread infection, and when it is considered that the expense of applying the intradermal test is small, we see no reason for taking these chances.

Installing Lightning Rods

I have a house equipped with lightning rods which I now expect to improve by covering with stucco. Will it be all right to imbed or cover the lightning rods with stucco, or should they be removed and then replaced after the stucco is put on?

Cambridge, Minn. A. P.

We recommend that the rods be placed on the exterior of the stuccoed wall in preference to embedding them. The rods are then open to inspection, and, of more importance, their contact with the surface renders them more effective in grounding the electrical charge thereon, particularly when the walls are wet. Should a severe stroke of lightning ground through rods embedded in the walls of a building, it appears probable, although we cannot cite any direct evidence, that some disruption would occur. A conductor on the surface evidently can move to a considerable extent, particularly a copper cable, and thus accommodate itself to the stresses set up with the passage of a heavy lightning discharge.

U. S. Weather Bureau. C. F. MARVIN.

Grain to Feed With Sweet Clover Pasture

Please give correct grain ration for dairy cows. We have sweet clover pasture and feed little alfalfa hay. We can buy wheat bran, corn meal, cottonseed meal, ground barley. We feed bran and a little cottonseed meal and corn chops.

Albuquerque, N. M. H. S.

When cows are on sweet clover pasture and are receiving a little alfalfa hay, it is an easy matter to make a mixture to supplement these two good roughages. It would be our suggestion to make a mixture consisting of 300 lbs. corn chop, 300 lbs. ground barley, and 200 lbs. wheat bran, and from 50 to 100 lbs. of cottonseed meal. This latter feed is not essential but it gives variety and if there is some on hand it might be well to use this small amount. Feed one pound of the mixture for each 4 or 5 lbs. of milk produced.

We have assumed the pasture is reasonably good; otherwise we would have suggested feeding more grain. We may also add that cows well along in their period of lactation and in good flesh will undoubtedly do very well if no grain is fed to them.

Feeding Cows on Pasture

Kindly figure out an economical and satisfactory ration for Holstein cows with feed at the following prices: We intend to feed 35 lbs. corn silage and 12 lbs. clover and timothy hay: Corn, $1.10 per 100 lbs.; oats, $1.35; bran, $1.25; oil meal, $2.30; cottonseed meal, $2.10. Also send a grain ration for cows on bluegrass pasture.

Fort Atkinson, Iowa. A. K.

When cows are on pasture, a mixture consisting of 300 lbs. ground corn, 100 lbs. bran, and 100 lbs. oats will supplement the grass very well. The amount of feed will depend upon the quality of the pasture, the kind of cow, and her period of lactation. About one pound of meal mixture for each 4 to 5 lbs. of milk produced, when pasture is good, is considered rather liberal feeding.

For a winter ration we suggest the following: Let the cows have all the silage they care to consume or, say, 35 lbs. per cow per day, and a liberal allowance of the clover and timothy hay. A mixture consisting of 300 lbs. ground corn, 200 lbs. bran, 200 lbs. ground oats, and 100 lbs. oil meal will supplement the roughage fairly well. Feed one pound of this mixture for each 3 to 3½ lbs. of milk produced. We have assumed the clover and timothy is about a 50—50 mixture.

Oak Leaves Poisonous

It has long been claimed by stockmen that cattle especially are poisoned by eating the leaves of scrub oak. In a few instances examination of these cases indicated that the animals were affected with hemorrhagic septicemia, leaving some doubt as to the reality of poisoning.

To determine this point an experiment was recently conducted on the ranch of Mr. Hugh McKee, six miles south of Trinidad. Oak brush was cut and fed to cattle in a corral with no other feed, but plenty of water. During the first few days the cattle consumed the brush greedily and it was difficult to keep a supply before them at times. On the eleventh day they refused to eat the oak brush, appeared gaunt, were constipated, and eye balls were retracted. On post-mortem, lesions of hemorrhagic enteritis were most conspicuous. The intestinal contents were very dark colored, soft, and mushy.

Both the symptoms and post-mortem findings conformed to previous reports of poisoning by scrub oak. It may be considered as settled that scrub oak is very injurious to cattle, and how to counteract its effects or prevent cattle from eating it constitutes a real problem.—GEO. H. GLOVER, Colorado Agricultural College.

Feeding Grain On Pasture

Many dairymen are asking the question, Does it pay to feed grain on pasture? Dr. C. H. Eckles, chief of the division of dairy husbandry, University of Minnesota, says the answer depends upon the amount of milk the cows produce and the condition of the pasture.

"A small milk producer will not pay for grain in addition to pasture," says Dr. Eckles, "while with a heavy producer it is a serious mistake not to feed some grain under all conditions. A cow producing 35 lbs. daily of average milk requires about 30 lbs. of dry matter in her feed. Fresh pasture grass contains not over 20 lbs. to the hundred. A cow producing the moderate amount of 35 lbs. daily will require then at least 175 lbs. of grass daily. The physical exertion necessary merely to gather this amount of grass and chew and digest it is clearly a hard day's work. It is possible under the most favorable conditions for a cow to gather and digest this much feed. Only too often, however, the grass is short and it becomes clearly impossible.

"Experiments have shown that with a small producing cow, for example one milking 20—25 lbs. daily, the feeding of grain gives only about an additional pound of milk for each pound of grain. The economy of this is questionable. However, it has been found that the returns of grain feeding do not all come at the time. Cows fed grain in pasture milk decidedly better the following winter on account of being in better condition by fall. This should be taken into account in considering the advisability of feeding grain during the summer.

"It is clear that no cow can produce a really liberal amount of milk for any length of time on grass alone. Sometimes they will do it for a while by drawing on their reserves, which means losing weight and condition with poor results later on."

Cow testing association reports show that the feeding of grain to dairy herds pays on Minnesota farms. A compilation of these reports by E. A. Hanson, who is in charge of cow testing association work in the state, shows that 1,231 cows receiving no grain on pasture averaged 228 lbs. fat per year at a feed cost of $41.87, as compared with 572 cows receiving grain that averaged 296 lbs. fat per year at a feed cost of $49.35. These figures show that for $7.48 additional spent for grain to feed during the pasturing season an additional return per cow of 68 lbs. of fat was realized worth $19.72 at 40 cents per pound.

Dr. Eckles' recommendations regarding the feeding of grain are as follows: Guernsey or Jersey cow producing 20 lbs. daily, 3 lbs. of grain; 25 lbs. daily, 4 lbs. of grain; 30 lbs. daily, 5½ lbs. grain; 40 lbs. daily, 8 lbs. of grain. Holstein, Brown Swiss, Ayrshire, or Shorthorn producing 25 lbs. daily should have 3 lbs. of grain; 30 lbs. daily, 4 lbs. of grain; 35 lbs. daily, 5½ lbs. of grain; 40 lbs. daily, 7 lbs. of grain; 50 lbs. daily, 9 lbs. grain. For higher production about one pound to each four or five of milk produced.

"It should be kept in mind that these recommendations apply only when pastures are good," says Dr. Eckles. "If pastures are short, as is often the case in late summer, some roughage or silage is also needed. When the amount of grain fed is small, any farm grains such as corn, barley, or oats serve the purpose. The grass supplies a liberal amount of protein.

"When liberal grain feeding is necessary, for example, six pounds or more daily, some attention must be given to including more protein. For a very heavy milking cow receiving a large grain ration the same mixture as used for winter feeding would be suitable."—Minnesota College of Agriculture.

Italian Cheese

I would like to know how to make Italian cheese.

Bellaire, Ohio. W. G. M.

Italian cheese are of many different varieties. One of the most prominent is Gorgonzola, a blue mold variety that is ordinarily made about 12 in. in diameter and 4 in. high. We take the following description of method of manufacture from Publow's book entitled "Fancy Cheese in America":

"Gorgonzola cheese is made equally well from the milk of cows and goats. It is made from two separately made curds, similar to the procedure in making Stilton cheese. Fresh, clean morning's milk is brought to a temperature of 82 degrees F. and coagulated by the addition of 4 ounces of rennet extract to each 1,000 lbs. of milk. When firmly coagulated, it is cut into very small pieces and placed in draining cloths in a curd sink. Every hour during the day the cloths are tightened about the curd to assist in expelling the whey. In about 8 hours from the time of adding the rennet the curd is cut into pieces about 4 inches square and left under a cotton cover till the following day.

"The night's milk is made up in a similar manner, but instead of cutting the curd into pieces 4 inches square, it is broken up and mixed with the curd of the morning's milk. A small quantity of moldy bread crumbs is also mixed with the curds. The idea of mixing the older curd with more acid and the newer one is to secure a more or less porous body in the cheese, as two curds of different temperatures and acidity do not unite as readily as the particles of a single curd. The open body is conducive to a growth of mold in the cheese. This is stimulated by the addition of moldy bread crumbs, which act as a "starter".

"After the curds have been mixed they are packed loosely into the forms, which are lined with cheese cloth, and placed on straw matting. The curd is not pressed. It is left to unite under its own weight. To bring this about, the forms should be turned every few hours for about 5 days and clean cloths put on occasionally. When the cheese have assumed their proper form they are placed in a moist room, at 68 degrees F. In 2 or 3 days a fine growth of white fungus will have started on the outside. This indicates that the cheese are ready for salting. The surface of the cheese is then entirely covered by gently sprinkling on the salt and then rubbing it in with the hands. Salt is applied in this manner each day for at least 14 days. When this process has been completed the texture of the cheese should be examined. If it is too close to permit the proper growth of mold, the cheese is pierced a number of times in both ends with metal skewers. The holes thus formed admit oxygen, which is necessary for the growth of mold. The cheese are then placed in a moist curing room, at 55 degrees F., upon straw mats, and turned twice a week until 12 weeks old, when they should be ready for market. In Italy the cheese are cured in caves, where a soft breeze continually blows. During the ripening process several varieties of mold grow on the outside of the cheese, but this coating is removed before the cheese are prepared for market."

Another Italian cheese is known as Caciocavallo. It weighs about three pounds and has a peculiar shape, resembling the sole of a shoe. Publow gives the following description of its manufacture:

"Three parts separator skimmed milk and one part whole milk are placed in a cheese vat, heated to 90 degrees F., and ripened by the addition of ½ per cent to 2 per cent commercial starter or buttermilk to an acidity of .21 per cent. Rennet extract, diluted in cold water, is then added at the rate of 2 ounces per 1,000 lbs. of milk. In 25 to 30 minutes the milk should be firmly coagulated, when it is cut into small cubes by the regular Cheddar curd knives. The curd is not stirred, but is allowed to settle to the bottom of the vat, where it remains for several hours, or until the acidity of the whey reaches .50 per cent. Direct steam is then turned into the whey and the temperature is raised to 165 degrees F. This temperature is maintained for 20 minutes, and during this time the curd is stirred with an iron rake. The whey is then removed and the curd kneaded by hand until all free whey escapes and the texture becomes stringy. It is then molded by hand into the desired shape and placed in a salt brine, strong enough to float an egg, for 2 or 3 days. When removed from the brine the cheese are suspended in pairs, from hooks in the ceiling, by cords tied tightly round the cheese about 2 inches from the end. While hanging from the ceiling they are lightly smoked with the smoke of burning wood and transferred to a cool, dry room where they remain suspended until ready for market. During the curing stage the cheese become hard and dry, and it may be necessary to rub the surfaces occasionally with boiled linseed oil to prevent their cracking. Caciocavallo cheese may be marketed when 2 months old, but remains in good condition for years. It is very seldom eaten in large pieces but is grated and used for making macaroni foods and for flavoring soups."

A Minnesota Jersey Gold Mine

W. H. KIRKWOOD, MINNESOTA

MINNESOTA, long known as "The Land of Ten Thousand Lakes", has also carried the reputation of being a great mining state due to immense production of iron ore in the range country, and, last but not least, enjoys the enviable reputation of being the "Greatest Butter State in the Union".

With such a setting it seems fitting that a Jersey cow, in the University herd, should be given honorable mention as one of the good butterfat producers in the state.

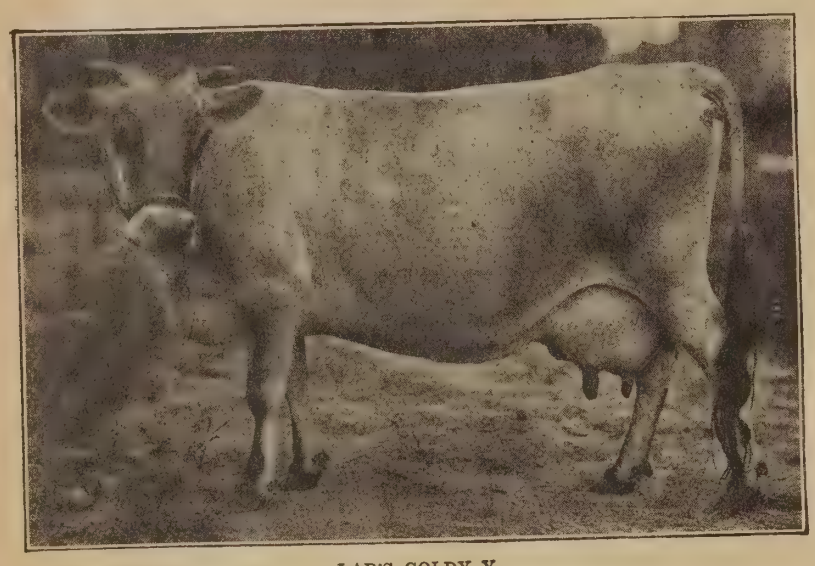
Lad's Goldy Y was born September 10th, 1909, in the herd of H. C. Young, Nebraska. On September 2nd, 1914, she became a member of the University of Minnesota dairy herd, having been purchased by M. D. Munn for that institution for $300. Goldy Y had dropped three calves prior to entering the University herd, two males calves, and one female that died shortly after birth. On June 11th, 1915, she calved and has calved regularly every year with a total of nine progeny in Minnesota. Of this number, four sons and one daughter are alive, the daughter being in the University herd, the four sons in service in the state. Her six sons sold for a total of $1,800 and in each instance have been the direct means of developing an outstanding herd of dairy cows.

Beginning June 13th, 1915, accurate milk weights and butterfat records were kept on Goldy Y, and up to the present lactation she has produced a total of 66,327.9 pounds milk, 3,546.04 pounds fat, or an average of 8,280.9 pounds milk, 443.25 pounds fat per year. She has never been milked more than twice per day. She was tested officially at seven years of age, producing 12,176.4 pounds milk, 669.52 pounds fat in 365 days, carrying calf 181 days.

Production Record of Lad's Goldy Y

Period	Days	Milk	Test	Fat
		Lbs.	%	Lbs.
June 13, 1915—Aug. 16, 1916	459	9,802.3	5.6	556.41
Oct. 18, 1916—Dec. 31, 1917	434	13,168.0	5.6	774.40
Feb. 1, 1918—Jan. 31, 1919	365	8,307.0	5.4	453.30
Mar. 8, 1919—Dec. 31, 1919	328	8,312.6	5.3	446.09
June 1, 1920—Mar. 6, 1921	279	6,763.6	5.0	339.08
Apr. 4, 1921—Dec. 20, 1921	290	5,831.6	4.8	278.95
Mar. 16, 1922—Nov. 30, 1922	258	7,270.7	4.6	344.75
Feb. 1, 1923—Nov. 5, 1923	278	6,809.1	5.2	353.06
Totals	2,691	66,327.9		3,546.04

Goldy Y's usefulness does not end with production and reproduction, for her outstanding dairy characteristics have given her a wide reputation. During the ten years of her life in the University herd she had been handled and studied by approximately five thousand students in dairying; and each year during the "Farmers' Week" has had her hide pinched and udder handled by at least 1000 farmers in an attempt to familiarize themselves with the outstanding points of a dairy cow.



LAD'S GOLDY Y

"Adapted for Dairying." A look at a cow of this type is all that is necessary to know that with the proper feed and care she is capable of large and economical production. Note the large barrel giving room for feed, splendid dairy form, large mammary development, and indication of constitution and vigor. She also has a pleasing appearance.

Indiana State Dairy Association Annual Field Day

The fifth annual summer field meeting of the Indiana State Dairy Association will be held at Kendallville August 6th and 7th. The Noble County Farm Bureau and civil organizations will co-operate with the State Dairy Association to make this one of the biggest summer field meetings in the history of this annual summer program.

The program, including talks by prominent men, a dairy cattle show, and two dairy tours, will justify the attendance of all members of the association and all others interested in dairying. The following day, judging of Jersey and Holstein cattle will begin promptly at 9:00 a. m. at the Kendallville Fair Grounds. There will be a total of 9 classes in each breed. The premiums total over $500 for the show herds, and in addition $250 for the Holstein and Jersey Calf Club Show.

It is the purpose of this summer session to put the Holstein and Jersey type before their respective breeders and dairy farmers, to apply the extension methods more directly to the farmer through the county farm bureau, to acquaint dairy farmers of the state with the factors in successful dairying, to show the relation between a city and the rural community, and to bring progressive dairymen of the state together.

Indiana. E. A. GANNON.

A Rangy White Heifer

HOARD'S DAIRYMAN:—This is a story of a leggy, rangy white heifer and a former ditch digger for the Standard Oil Company. The story was told to me recently by Professor Oscar Erf of Ohio State University.

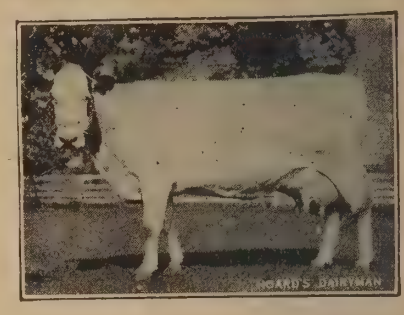
M. J. Dunn labored on the ditch lines of the Standard Oil Company for 26 years. Doing this he made a living and a little besides but, not getting ahead very fast and wanting a change, he decided to try farming. Presumably the shift was made as much in the interest of a change of work as it was in the hope of greater financial return. Being removed from the farm for 26 years Mr. Dunn's original knowledge of farming had become rather hazy, but he put his savings into 118 acres in Huron County, Ohio, part of which was his old home farm. The soil on this 118 acres was mostly a tight clay, infertile and hard to work and not more than medium in cropping possibilities. The pasture, however, was good. The buildings were old and dilapidated. The place was run-down and an eye-sore.

After moving on the farm Mr. Dunn, not having much money, started in the dairy business with a grade herd. This, he thought, would be the best means to build up the soil fertility as well as to promise most profit. Mr. Dunn could not convince himself that pure-breds were a better investment than grades although there were quite a few pure-breds in the community. Grades, he thought, would do.

Mr. Dunn's greatest difficulty was a lack of knowledge about feeding. He kept close check on production because as an oil company employe he was for a while timekeeper on the ditch lines. This made keeping records easy for him. The records showed him that somehow his herd was not yielding much profit. Discovering this he began to think more about pure-breds. He wondered if after all they might not pay. He decided to find out.

After selling his grade herd, Mr. Dunn, still dubious but not discouraged, went to LaGrange and attended a pure-bred Holstein sale. There were many good cattle sold that day and eager buyers bid prices high. Finally a long-bodied, tall, white heifer was led into the ring. She was not of beautiful type and her body markings were not just right. Most buyers shunned her but Mr. Dunn bid her in at $255, a price lower than the sale average, and he got her. This animal was White Beauty Pontiac Mahomet.

The neighborhood about Wakeman is not exactly well known as a dairy community. Although there is a cow testing association there and many good herds are found, none of them are famous. The cow tester along with his other regular duties has introduced many successful feeding



WHITE BEAUTY PONTIAC MAHOMET, OWNED BY M. J. DUNN, OHIO

This pure-bred Holstein was purchased as a heifer by a ditch digger turned farmer. He studied feeding her under a cow tester and she produced 32,626 lbs. milk containing 1,094 lbs. fat.

rations. Although Mr. Dunn could see no need of joining the association he was interested in finding better ways to feed his cows. He began to take heed of some of the practices the tester was advocating and in due time his opposition broke down and he joined the association.

About this time White Beauty freshened and began producing a big flow of milk. The tester observed that the cow was receiving a grain ration of only corn and oats and a poor quality hay while producing this good flow. She was getting no alfalfa. The tester wondered what the cow could do if she were given a better chance. He thought she could make the Advanced Registry and told Mr Dunn so. Although the owner did not think the cow was capable of such a test he continued to develop her by better feeding. Under this care she came on wonderfully and on January 30, 1923, Mr. Dunn was persuaded to try her for Advanced Registry.

He began feeding then, under the direction of the tester, a ration of hominy, gluten, oats, bran, linseed oil meal, beet pulp, and salt. She was given this ration until pasture time when the beet pulp was discontinued but the grain ration was continued. She was milked four times a day and was watched very closely to keep her from going off feed. She was weighed often to keep her weight as constant as possible. Mr. Dunn fed only ground grain and in order to get the best quality of hay he cut the crop just before the seed pods hardened. After the pasture season was over beet pulp was again added to the ration.

White Beauty completed her test last January 30. In 365 days she made 32,626.3 pounds of milk and 1,094 pounds of fat. The rigorous feeding instead of breaking her had developed her. At the present time White Beauty Pontiac Mahomet looks nothing like the racy heifer that was turned down by the big breeders at the auction and picked up, with some misgivings, by Mr. Dunn. She now weighs 1,550 pounds and, in the words of Professor Erf, has a type "as good as can be found". And incidentally she has made M. J. Dunn, former ditcher, well known among Ohio Holstein men.

Ohio. C. A. BROWN.

Good Cows Profitable and Interesting

HOARD'S DAIRYMAN:—Peter Bastian of Illinois has a registered Holstein cow recently purchased at Milky Vale Dairy Farm, that has made the following remarkable records: In February, March, and April she produced 6,491 lbs. milk which netted Mr. Bastian $189 after paying transportation charges. She averaged over 70 lbs. daily for the 90 days, going up to 81.2 lbs. her best day. She produced five times her own live weight in milk in the three months. In March she gave 38 8-gallon cans of milk. Her daily average was enough to supply 35 families with a quart of milk each morning.

Yet more vivid are the facts when considered on a food production basis and compared with that of a steer. A quart of milk is equal in food value to 12 ozs. of steak. A steer gaining two pounds daily requires three years and 121 days to produce 2,433 lbs. of steak, the equal to 3,245 quarts of milk which this cow produced in 90 days. Or, it would require nearly 14 steers to keep pace with the cow during the 90 days. Consider the feed required for them as compared with what one cow could consume.

This cow is seven years of age, has freshened five times, and has two sons and four daughters, all living, one having a pair of twins. Last year in the cow testing association she had a record of 16,070 lbs. milk and 490 lbs. fat during her lactation period. She returned $360 in addition to a pair of calves. She has an official record of 21 lbs. butter in seven days made at second freshening.

Illinois. LOUIS H. KLAAS.

GRADED MILK IN ENGLAND

F. A. LEJENNE, ENGLAND

THE grading of milk has been an established practice in American cities for many years, but in England it is a comparatively new idea. Before the great war neither public authorities nor medical commissions in England made any attempt to grade milk; in fact it may be said that such a thing was hardly ever mentioned. There were individual dairymen who made every effort to produce the best class of milk and who were able to build up a reputation accordingly, but they were few and far between. In the poorer districts of the great cities there were doctors and far-seeing healthworkers who realized that the children never got enough milk to give them a fair start in life, and the quality of what they got was usually far from reliable and was made worse by storage afterwards in unhygienic homes. When these people suggested that something might be done, they were met by the old, unreasonable argument, "There are reasons against it; the trade is too complicated to institute any kind of control".

This theory, however, like many another, came to grief on the hard facts of war. There was one man (Wilfred Buckley of Moundsmere in Hampshire) who for years had studied the production of clean milk. In his travels he had studied the methods in use in New York State, and he had applied them on his own farm in Hampshire and so had built up a reputation for the quality of Moundsmere milk. Early in the war, being unfit for military service, he felt that he must "do his bit" for his country, and he decided to push forward the improvement of the milk supply in the hope of saving a few infant lives in the years when the loss of life was so appalling. A little later, when the Ministry of Food was rationing the whole country, a man was needed to direct the Milk Section of the Ministry. Buckley undertook the work, a colossal task which meant controlling all the milk in the British Isles, whether in liquid or preserved form. In this work he was ably seconded by James Mackintosh of University College, Reading. The question of fixing wholesale and retail prices soon arose, and when all prices were controlled it was decided to allow a special maximum price, higher than that of ordinary liquid milk, for milk of "exceptional hygienic quality". So for the first time in England was it officially recognized that milk can and should be graded according to its cleanliness and purity.

After the war, the Ministry of Food died a natural death, but the grading of milk was continued as an emergency measure by the Ministry of Health. Control by a government department had proved a practical and successful proposition. After much abuse and discussion, milk grading was sanctioned by Act of Parliament, as distinct from its previous position of a temporary expedient only. There were three main points of view: (1) That grading was not practical and not much use anyway, (2) that milk producers and retailers should be forced to clean up, under threat of dire penalties, and (3) that the existing grading should be carried on which meant the government giving official recognition, with adequate safeguards, to those who voluntarily produced milk of the high standard required.

The third point of view carried the day; experience had proved the scheme feasible. On the other hand, it was felt that public opinion was not ripe for compulsion in milk hygiene, and that any law which attempted it would come to grief. Time is proving the wisdom of the decision. There have been, unfortunately, several changes in the names of the grades and in the conditions attached to them, but some adjustment is always required when starting a new machine.

A short description of the grades may make an interesting comparison for those engaged in similar work in America. It must be understood that all the grades are voluntary—nobody need go in for them unless they wish. Where it is desired to do so, the Ministry of Health, or in some cases local authorities, grants a license for the production or retailing of the particular grade, and it is only when a license has been granted that the dairyman may sell such a grade. Licenses cost from $1.25 up to $25 per year according to the class of milk sold, and whether the applicant is a producer or retailer. The prices for the sale of graded milk are not priced now as they were during the war.

"Certified" milk must come from cows which have passed the tuberculin test twice yearly. It must be bottled on the farm where produced, be retailed within 48 hours at longest, and not contain more than 30,000 bacteria per cubic centimeter at any time before delivery to the consumer. The average retail price is about 26 cents per quart.

"Grade A (tuberculin-tested) milk" has to come from cows tested the same as above. It may be shipped in bulk to the retailer, who must bottle it before distribution, with a bacterial content of not more than 200,000.

"Grade A" milk is the same, only there is no T. B. test, a clinical examination being substituted. There is not much of this on the market, as the public, if they want graded milk at all, want to be sure it is free from tuberculosis. Grade A (T. B. tested) milk has an average retail price of about 18 cents a quart, but it is so new a thing that prices have hardly found their level yet.

The above three grades must not be treated by heat, unless officially "pasteurized" and certified milk must not be even pasteurized. Pasteurized milk, if sold as such, must be treated by the holder process, in a plant which has been passed by an inspector of the licensing authority. The writer does not know of their being any "grade A pasteurized" on the market, and the public likes its grade A milk raw. Pasteurization will probably be reserved for market milk. Much of the commercial milk sold is pasteurized in one way or another, but no official sanction is given to the flash process, which is usually of little value to the public. The small retailer as a whole does not look with favor on these grading schemes, nor even on milk being sold in bottles at all. He feels he is at a disadvantage as compared with the big dairy companies. But he has to move with the times and there is no question that the discerning public is only too glad to pay a little extra (ordinary milk averages about 14 cents per quart), for a milk with a government guarantee behind it.

IN THE DAY'S WORK

WASTE

ELWOOD ERICKSON, NEW YORK

ONE of the most baffling incidents in the business of life is the portentous and ever present sense of waste. As we sum up the total of our labors, so few of them apparently bear fruit. Much effort is futile without compensation. And especially in that realm where results are indefinite. In our efforts to be kind we are too often met by ingratitude of which it has so bitterly been said, "Blow, blow, thou winter wind. Thou art not so unkind as man's ingratitude." We want to be generous and some suspicious man thinks that we have an axe to grind. We yield to an unrestrained affection and too often are met with cynicism.

Love's labor lost, goodness unrequited, this sense of futility is responsible for much of the unbenevolence which exists in the world today. It closes up the pores of human kindness, it restrains that generous outpouring of the human spirit toward our fellow men. We ask ourselves, why risk the wounding of our spirits, why cast our pearls before swine? Why should we not draw up within ourselves, live a well ordered, sagacious, prudent life, and let the rest of the world go by? Many people arrange their lives on such a program as this, safety first.

And yet as we look a little deeper into this matter of waste, we find that the doctrine of safety first does not cover the case, rather that is at direct variance with some of the fundamental facts of life itself.

Among other things, we soon learn that one of the first rules of effective living calls for risk. We are forced to risk the possibility of waste. We must risk ineffectiveness. The old adage, nothing ventured, nothing gained, must also be considered.

We must take the risk, for life is risk. This gives the zest and joy of living.

"No game was ever worth a rap
For a rational man to play
Into which no accident, no mishap,
Could possibly find a way."

Or, we face that other strange fact in the business of living that there is really, in the last analysis, no such thing as waste. A wise man once said, "that a weed is a flower for which we have not as yet found a use". At the time, things unfruitful, but in the long run, they work themselves into the constructive plan of life.

A good deed is never really wasted. It may be unappreciated at the moment, its effects may be long in appearing, but finally it works itself into the confederacy of human good. In Longfellow's poem, the song breathed into the air was sung and forgotten but long years afterwards it was found in the heart of a friend.

At a banquet in London, Lord French introduced General Smuts of South Africa. The latter related an incident of the Boer War. He was commanding the forces that had been defeated by the British. He gathered the decimated band into the mountains. They saw a train winding its way slowly through the narrow defiles of the mountains. One of the company suggested that they roll a boulder down upon the track and wreck the train. Smuts forbade it. "We shall not add murder to defeat." On that train was the then Lieutenant, and now Lord, French.

To be sure, mercy may not always come so graciously and dramatically as this, but it is never really lost.

Life asks us to treat it generously, to sow with a broad sweep, not to hold back. It redeems every good deed and generous thought, somewhere and somehow. It asks us to cast our bread upon the waters. Though the interval may be long and though the effort may be apparently unfruitful, it holds out the comforting promise that we shall find it after many days.

Uncle Ab says a squeaky windmill never cured insomnia or gained any popularity with the neighbors.

Milk Bottle Recoveries

In the year 1923 the milk dealers' bottle exchange collected, sorted, and returned 33,622,267 bottles to 437 patrons. This concern is owned and operated by and for the Milk Dealers of Chicago and its suburbs. It is their authorized agent in the matter of collecting, sorting, and returning to them their bottles, cans, and cases. It spends approximately $20,000 per annum in recovering bottles from persons who have illegal possession of them and in discouraging them further in this undesirable practice. This money is spent chiefly in bringing suits of replevin and injunction proceedings. A system of inspection is maintained, three men with automobiles being employed for this purpose.—E. REUTER, MGR.



ALFALFA ENTHUSIASTS AT A PICNIC HELD JUNE 20TH ON THE FARM OF W. W. BROOKS, TODD COUNTY, MINNESOTA

This was just a community gathering called for the purpose of discussing among themselves the best time to cut alfalfa and the best way to cure it. Mr. Brooks has 55 acres of alfalfa most of which is several years old.



Camps for Farm Women

The person in West Virginia—whoever it was—who thought of the camp for farm women certainly had a good idea. There may be others like it but I have not heard of them.

Back there to a beauty spot called Jackson's Mill they go every summer and leave behind them every trace of home duties. No, not quite; they do have to make their own beds but they don't do a scrap of cooking or dishwashing all day long. Imagine the relief.

They stay five days and pay a dollar a day plus another dollar for registration and when they leave to go back home they feel as frisky as spring lambs. The campers—there will be about 150 this year—are divided into tribes and they have as much rivalry as if they were Indians; yelling, playing games (they even play baseball and pitch horseshoes), doing stunts, and renewing their youth in general.

These grown-up girls may study if they want to and this year they are being offered a course in fairs and exhibits with Appreciation of the Beautiful as a secondary theme. The director reports that the campers are wonderful women in their enthusiasm for things and their appreciation of Nature, good pictures, and music.

The thing they like best of all is vespers and this service is held out on the grass. They never stay indoors any longer than they must nor in bed, either; the only difference the rising bell makes is that they begin talking out loud instead of in whispers for in order not to miss anything they get up at 5:30 instead of seven as they should.

It may sound queer but no children are allowed in camp. It makes a good many tugs at the heart but if they were along there would be no rest for the mothers and as the separation is so short it works out best for both.

At home they simply have to be serious most of the time—we think we do at least—but in camp these women are up to all sorts of pranks and tricks on each other. The fat ones stage a show for the lean ones by doing reducing exercises, in fact the director had to get up once in the middle of the night and attend to them because of the noise they were making. There they were out on the grass in the moonlight almost in convulsions over a huge, good-natured woman who was going through her exercises for the benefit of the crowd.

It made them think of school days when the camp director had to come and shoo them back to bed. They said they could sleep at home and didn't believe in wasting time doing it in camp any more than was necessary.

Men and women come from long distances to address them. These people are chosen for inspirational ability and their speeches give the campers something worth thinking over as they go about their farm work. Law making and their part in it is explained in such a way as to make them feel it is as much their concern as anyone's what sort of public officials we elect.

Of course they have a chance to learn all sorts of good things about making their houses more attractive and it is all presented in such a way as to want to make them want to go home and do something about it; that is the only kind of teaching that is worth anything. I wish we all had a chance to go to such a camp and until we do, success and happiness to our West Virginia women.—LUCY THOMPSON.

Dressing for the Salad

Nearly all vegetables may be served in the form of salads. The salads made with raw vegetables are more refreshing and, I think, more generally relished than are those made with cooked vegetables.

The most common of the green salad plants are lettuce, celery, dandelion, tomatoes, endive, chickory, and water cress. Other vegetables should be used for salads because they give a very pleasant variety to the menu. Raw cabbage, green cucumbers, young carrots (put through the food chopper) cooked beets, cooked spinach, peas, and cooked potatoes all make most excellent salads either alone or in combination.

When salads are used every day it becomes necessary to have on hand some dressing or sauce that will season or "dress" the vegetable. Salad dressings are usually sharp or pungent sauces and are suitable for every kind of vegetable raw or cooked. The dressings can be prepared at any time, and when they are made in quantities large enough to last a week or more, it is an easy matter to concoct a salad at meal time.

Because I have salads every day, I keep on hand three kinds of dressings which I use as bases for all the dressings I make. They are the ordinary French dressing, a boiled dressing, and the regular mayonnaise. When I am having a hearty meal I plan to have a light salad such as some salad green or an acid fruit with French dressing. For a light meal I choose a hearty salad with cooked or mayonnaise dressing. Such salads of vegetables, eggs, fish, meat, or cheese I often use as the main dish at a meal. A fruit salad with a sweet dressing often forms the dessert.

French Dressing and Variations

Oil, 1 cup	Powdered sugar, 1 teaspoon
Vinegar, ¼ cup	A dash of red pepper
Salt, 1½ teaspoon	Paprika, ½ teaspoon

These are the proportions I always use but I make it in larger quantities, never less than a pint at a time. To make it I first put the dry ingredients in a bottle or a glass fruit jar, next add the vinegar, and then the oil. Then I cork the bottle or seal the jar and shake the dressing vigorously until it is good and thick. Then I pour off as much as I want for the present meal, recork the bottle, and set it away in a cold place. The bottle must be shaken well each time before the dressing is used.

With this dressing as a base I can use different flavorings which makes every dish seem new. For meat or fish I add a teaspoon of mustard, or a tablespoon of India relish. For green salads I add 1 teaspoon each of finely chopped parsley and capers and one teaspoon of grated onion. Sometimes I just add more salt, pepper, and tobasco sauce. The yolk of a hard cooked egg may be added or some finely chopped sweet red and green peppers. To ¼ of a cup of French dressing I sometimes add a tablespoon of finely crumbled cheese. For fruit salads I add a little orange or grapefruit juice.

Quick Mayonnaise Dressing

Powdered sugar, 1 tsp.	Oil, 1 cup
Mustard, 1 teaspoon	Egg, 1
Few grains cayenne	Vinegar, 2 tablespoons
Onion juice, few drops	Salt, 1 teaspoon

All the seasonings I put into a large-top fruit jar, mix them well, and then add the vinegar. When the vinegar is well mixed with the seasoning, the egg is added and well beaten. Now the oil is added, at first a tablespoon at a time, and when it is well mixed with the egg, the oil is added in larger quantities. When I have sour cream or slightly sour cream, I add it instead of a part of the oil.

Mayonnaise dressing I vary the same as the French dressing. I take from the jar as much as is needed for the present meal and make my additions to suit the particular dish I am making. When I have fish, meat, or shell fish I add to a cupful of this dressing about two tablespoons of chopped olives and sweet pickles. Sometimes I add some finely chopped onion. But for fruit salads I usually add more sugar and beat the dressing up with some whipped cream.

Easy Boiled Dressing

Melted butter, 3 tbsp.	Milk, 1½ cups
Flour, 1½ tablespoons	Eggs, 2
Salt, 2 teaspoons	Sugar, 4 tablespoons
Cayenne pepper	Mustard 3 teaspoons
Vinegar, ½ cup	

First I mix all the dry ingredients and mix them with about ¼ of the milk until they are well blended. Then I heat the remainder of the milk, add the melted butter, thicken it with the first mixture and let it boil for about two minutes. After it has cooled slightly I add the vinegar, and pour this hot liquid carefully over the slightly beaten eggs, stirring constantly. The whole I then cook in a double boiler until it thickens. This rule makes more than a pint of mild dressing and will keep for a long time if it is kept in a cool place.

Salad dressings and oils should be kept in a dark, cool place to keep them from becoming rancid. The colder they are, the thicker they will be and the thicker the dressing will be.

When tender green salads are made the dressing should not be put on until it is time to serve the dish because the vinegar draws out the water and wilts the salad plants. Meats and cooked vegetables, how-

(Continued on next page)

Fashion Magazine

From the front cover of our Spring and Summer Fashion Magazine right on through the book, you will see all of the styles which will be popular during the coming season. Styles for morning and afternoon wear as well as those needed for the more formal occasions. And cute styles for the kiddies. There are dressmaking lessons for the beginner, and charming styles which can be made in a couple of hours even by one who is a novice with the needle. Also photos of the most popular Broadway, New York, actresses. So settle your dress problems by sending 10c today for our new Fashion Magazine. You'll save dollars by doing so. Address Fashion Department, Hoard's Dairyman, Fort Atkinson.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Miscellaneous Fashions



No. 2050—Easily Made Style. Truly charming and simple too, recommends this style to the fastidious woman who has little sewing experience. The design is so simple, in fact, that you could finish it in a few hours. A printed silk crepe, canton crepe, crepe satin, or plain or fancy cotton material is suitable. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3¼ yards of 40-inch material with ⅞ yard 36-inch contrasting.

No. 2119—The Older Woman will find the lines of this smart style very becoming. A gray voile with blue motif running through it to stimulate a braiding design would be attractive. Silk crepes and plain and fancy cottons might also be used. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 4⅝ yards of 40-inch material with 1⅛ yards of 36-inch contrasting and 4½ yards of edging.

No. 2057—Charming Design for Girls. It cuts all in one piece. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 takes 1¾ yards of 36-inch material with 2½ yards of binding.

No. 2062—Slenderizing Corset Cover. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 requires 1 yard of 30-inch material with 2¾ yards of edging.

No. 1983—This good-looking style cuts all in one piece as shown in the accompanying diagram enabling even the amateur home sewer to cut and finish it in an hour. The pattern comes in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3¾ yards of 40-inch material with 2⅛ yards of 5-inch ribbon.

No. 2081—Men's and Boy's Union Suit, buttoned at front and across the right center-back and side of drawers section. Cut in sizes 6, 8, 10, 12, and 14 years, 34, 36, 38, 40, 42, 44, and 46 inches breast measure. Size 36 requires 2 yards of 36-inch material.

No. 1893—Costume Slip, to be made with straight upper edge and shoulder straps or with built-up shoulders and round neck. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 2⅞ yards of 36-inch material.

ever, are greatly improved by being tossed around in French dressing and allowed to stand for a while to season, even when they are to be served with some other kind of dressing. This process of seasoning is called "marinating" and it is a real economy because less dressing is needed to give the desired flavoring.

Mayonnaise dressing should not be put on the salad until it is just time for serving. It is likely to separate if it stands around in the kitchen for a while. For this reason it is great economy to serve the salad without dressing and to simply pass the dressing at the table in a mayonnaise bowl.

I always make the dressing in large quantities. A quart is as quickly made as a much smaller quantity and it may be kept for several weeks if kept in a cool place.—SOPHIA K. ORMOND.

Sweet Pickled Peaches

Clings are fine for this but we all know the difficulty of trying to eat them nicely. A man we know was invited out one time where they had these and in trying to get a nibble off one he managed to throw it into his lap. Of course he was confused and embarrassed for a minute and then, seeing that no one seemed to have noticed it, he wrapped the peach in his napkin and went on eating. Of course he was gone by the time the hostess found out that one of her best napkins had been nearly ruined by being wrapped for several hours around a pickled peach. But clings do have the best flavor, just the same. Here is the recipe:

½ peck peaches
2 pounds brown sugar
1 pint vinegar
A few cloves
1 oz. stick cinnamon

Boil sugar, vinegar, and cinnamon twenty minutes. Dip peaches quickly into hot water and rub off fur with a cloth. Stick each peach with a few cloves. put into syrup and cook till soft, taking only a few peaches at a time. Pack in jars and fill to overflowing with syrup.—LUCY THOMPSON.

A Potpourri

It's a grand-sounding French name to spring on your friends (pronounced po-poo-re). While it has one or two other meanings we Americans usually use it to mean a collection of dried flower petals used to scent a room.

They are as easy as can be to make if your garden has roses or other fragrant flowers in it. After the dew is off, pull the petals from roses and place them in layers in a jar alternating with thin layers of salt. If you are growing lavender this summer you can add some of these flowers, too.

Keep adding to the jar from day to day as the flowers bloom and when it is full sprinkle in some powdered cloves, cinnamon, and nutmeg. Keep the jar closely covered until you wish to perfume a room.

Either a covered pottery or glass jar that is ornamental is appropriate and if you have a bedroom with sprigged wall paper and old fashioned furniture in it, your potpourri will add the last touch.—LUCY THOMPSON.

His Oath!

"Do you know the nature of an oath, madam?"

"Well, I ought to, sir. We have just moved, and my husband put down the carpet."—Everybody's Magazine.

Friendly Talks for Farm Folks

Clark Figary says that most everybody thinks the grass a little greener on the other side of the fence or world, but when a man sells out and moves over, he's pretty likely to discover it was nothing but quack grass all the time.

⚜

A white-collar man from the city had gone back to the farm and was laboring by the hard sweat of his brow to reap a living from the stony and worn-out land in which he had invested. A lady of romantic inclinations from his farmer abode was visiting the family, and she would watch the perspiring one with vast interest as he daily attempted to wring a few crops from his reluctant acres. "What fun it must be to work with Nature in the great outdoors!" she enthused. "Huh!" finally replied the would-be farmer in disgust, "I'll say there couldn't be anything much funnier!"

⚜

At a farm auction the other day, two neighbors a little short of cash hatched a scheme between them to buy an outfit of hay tools together, taking turns using them. "It's like this," one of the intending purchasers explained to a skeptical listener. "When I want the hay loader and rake Mort will be all through with 'em as he's so durned forehanded that he gets his haying all done for the day in the forenoon; while some way or other I never get around to haying in earnest 'til afternoon when Mort's all through." Perhaps this partnership will work out better than folks think.

⚜

Caleb Russell's boy, George, has always worked out like his fathers before him, and now at the age of twenty-eight has bought himself a dandy little farm and begun stocking it and expects to wed the prettiest girl in the county next month. For a hundred years back the Russells have been known as the finest helpers to be had hereabouts, and any farmer who had the luck to hire one of them for a year's work has rightfully considered himself and land lucky. About all the Russell boys down the years have worked out so long, carefully saved their money, bought a good farm eventually, and have become leading and prosperous citizens in good time. George, Caleb's son, has only followed in his father's and grandfather's footsteps in this regard and would be greatly surprised if he were patted on the back for his industry and thrift. It would never have occurred to a Russell, either of yesterday or today, to leave the land in the lurch—whether it was their own land or somebody's else—to go to the city for a job or tear off to see the world or do any of the things the average man or boy has and will do before he settles down for good. The Russells are country people, born and bred of the soil just as much as the towering trees and the green grass which grow around them. Boys of this generation either go to college or clerk in a store or become drummers or do just about anything except stay on the farm for the sheer love and loyalty of it. The Russells are a fast disappearing clan. When they are no more, something clean and sweet and worth-while like good broken dirt itself will have disappeared forever. But who shall say that the Russells are the salt of the earth? Aren't such as these missing the best, after all, that life has to offer?

New York. HELEN S. K. WILLCOX.



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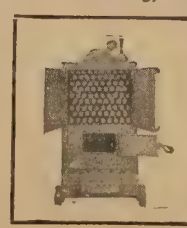
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DAIRY MARKET NEWS

July Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 109 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributor's country plant.

Table I—July Producers' Prices by Geographic Sections

Sections	Range of prices per cwt.	Comparison of average prices 1924 July	1924 June	1923 July
New England	$2.12—3.40	$2.83	$2.75	$3.14
Middle Atlantic	1.95—3.21	2.31	2.30	2.65
E. No. Central	1.33—3.00	2.36	2.34	2.42
W. No. Central	1.40—2.82	2.01	2.02	2.08
South Atlantic	2.38—4.94	3.45	3.42	3.23
E. So. Central	1.72—2.90	2.57	2.66	2.18
W. So. Central	1.58—3.51	2.31	2.29	2.48
Mountain	1.40—3.20	2.25	2.30	2.19
Pacific	1.90—3.59	2.60	2.48	2.65
United States	1.33—4.94	2.46	2.45	2.56

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers.

Table II—July Producers' Prices F. O. B. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.	$3.54	17
Phoenix, Ariz.		10—12
Little Rock, Ark.		16
San Diego, Calif.	3.89*	15
San Francisco, Calif.	3.11	14
Denver, Colo.	1.92	12
New Haven, Conn.	3.51*	15
Washington, D. C.	3.20*	14
Jacksonville, Fla.	3.37*	16—18
Chicago, Ill.	2.99	14
Indianapolis, Ind.	1.58—1.75	12
Des Moines, Ia.	2.35*—2.45*	12
Topeka, Kans.	1.75—1.90	10—12
Louisville, Ky.	1.89—1.92	12
New Orleans, La.	3.51*	
Baltimore, Md.	3.31*	13
Boston, Mass.	2.94*	12.5
Detroit, Mich.	3.00	14
St. Paul, Minn.	2.10	10
St. Louis, Mo.	2.40	13
Butte, Mont.		13—14
Lincoln, Nebr.	1.75	10
Trenton, N. J.	3.06*—3.17*	12
New York, N. Y.		13
Fargo, N. D.	2.10	10
Cleveland, Ohio	2.40*—2.50*	10—12
Tulsa, Okla.	1.75	
Philadelphia, Pa.	3.14*	12
Pittsburgh, Penn.	3.50*	14
Providence, R. I.	2.76*	12.5
Sioux Falls, S. D.	2.50*	12
Memphis, Tenn.	2.80*	15
Dallas, Tex.	2.60*	15
Salt Lake City, Utah	2.10	9—10
Richmond, Va.	3.81*—4.05*	14
Seattle, Wash.	2.45*	11
Spokane, Wash.	2.61	12
Milwaukee, Wis.	2.85*	11

*Basic prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at producers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III—July Prices at Country Stations

	At country station	Freight zones to which country station prices apply
New Haven, Conn.	$3.05*—3.23*	28c rate
Washington, D. C.	2.38*	35c rate
Chicago, Ill.	2.50	All
Baltimore, Md.	2.73*	35c rate
Boston, Mass.	2.12*—2.21*	181—200-mile zone†
St. Louis, Mo.	1.70—1.80	34c rate
Trenton, N. J.	2.51*	28—33c rate
New York, N. Y.	2.06*	201—210-mile zone‡
Cleveland, Ohio	2.10*	All
Pittsburgh, Pa.	2.65*	All
Philadelphia, Pa.	2.57*—2.60*	51—60-mile zone
Scranton, Pa.	1.95	30c rate
Dallas, Tex.	1.80*—2.20*	All

*Basic prices for fluid milk. †46.5c rate. ‡53c rate.

Table IV gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat.

Table IV—July Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	Light cream† per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Albany	16	26	10	10	17—18
Asheville	18	25	10		
Boston	16	25	10		
Baltimore		30	13	15*	
Buffalo	13	26	10	15	22
Chicago	23	25	10—24	15*	16
Cleveland	18—25	30	8—12	15	15—18
Columbus	17	25	7—12		12—13
Denver			8	15*	13
Des Moines	14—25		5—10	14	14
Detroit	22—25	25	10—18		16
Hartford	16—20	27			18
Indianapolis	16		10	20	13
Lincoln	13	20	10	15*	10
Louisville	16	24	9—12		16
Memphis		25—30	7—8		15
Miami	30	30—35	20	35	20—30
Milwaukee	14	25	6	10	13—14
Minneapolis		20	10	10*	14
Nashville	18		8	20	16
New Orleans	18	30	13	15*	17
New York	30	28	11		
Philadelphia	14—15	30	12		15
Salt Lake City	15		7		18
San Francisco		25	14		18
Spokane	18½		10—12		13—15
St. Louis	13	25	10	15	17
Trenton	16	30	12		12—13
Washington	23	30	14	10	15—17

*12-oz. package. †18—25% fat.

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were firmer following previous weeks' price declines. Trading was more active but buyers were cautious and discouraging any advance. Production was heavy except in parts of New York State where backwardness of the season is still evident to some degree. Active buying for storage.

The average wholesale prices on American cheese, style Twins, for the week ending July 12, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending July 12 1924	July 5 1924	July 12 1923
	Cts.	Cts.	Cts.
New York	20.7	20.6	24.7
Chicago	17.9	18.7	21.8
Boston	21.6	21.4	24.9
San Francisco	21.1	19.5	23.3
Wisconsin Board	17.4	18.3	21.4

The receipts of cheese at these markets were 6,339,925 lbs. for the week as compared with 5,799,247 lbs. last week and 6,050,255 lbs. a year ago.

MILWAUKEE, July 22—Butter—Creamery, extras, tubs, 37c; standards, 36½c; extra firsts, tubs, 35@36c; firsts, 33@34c; seconds, 30@32c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 25@25½c; ordinary, firsts (standard cases), 24½@25c; miscellaneous lots, shippers' cases returned, candled, 21@22c; seconds, dirties, 19½@20c; checks, 19½@20c.

Cheese—American full cream, Twins, 17½@18c; Young Americas, 18@18½c; Longhorns, 18½@19c; Daisies, single, 18@18½c; American, 32c; Pimento, 34c; Swiss, 42c; special market Brick, fancy, 15½@16c; Limburger, new, 22@23c; imported, Swiss loaf, 44@48c.

CHICAGO, July 21—Butter—Receipts, 17,796 pkgs.; creamery, extras, 37c; standards, 37¼c; dairy, firsts, 35@35½c; seconds, 33@34c.

Eggs—Receipts, 19,510 cases; ordinary, 24@24½c; firsts, 25@26c.

Cheese—Twins, 17½@18c; Young Americas, 19c.

FOND DU LAC, Wis., July 19—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 17¾c; Twins, 17½c; single Daisies, 18c; double Daisies, 17¾c; Longhorns, 18c; square prints, 18¾c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange July 19: Single Daisies, 16¾c. On Farmers' Call Board, July 19: Twins, 16½c; single Daisies, 16¾c; Young Americas, 17¼c; Longhorns, 17c; square prints, 17½c.

NEW YORK, July 21—Butter easier; receipts, 9,583 tubs; fresh supply, 64,121 tubs; creamery extras, 40½c; specials, 40¾@41½c.

Eggs—Firm; receipts, 5,091 cases; fresh supply, 68,643 cases; white, fancy, 41@44c; fresh firsts, 27@33c; western whites, 28@40c.

Cheese Prices for June

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese (style Twins) for the three large markets in June:

	Average price 1924	1923
	cents	cents
Wisconsin Boards	18.4	22.9
Chicago	18.7	23.3
New York		24.3

Longhorns averaged 18.8 cents in June on the Wisconsin Boards as compared with 18 cents in May and 23.4 cents a year ago. The receipts of cheese at Chicago, New York, Boston, and Philadelphia totaled 98,087,696 lbs. for the first six months of the year as compared with 98,124,177 lbs. for the same period last year. Storage holdings at these markets on July 1 were 15,101,652 lbs. as compared with 13,351,210 lbs. a year ago.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on July 1, figures being given in thousands of pounds (000 omitted):

	July 1 5-yr.-ave.	July 1 1923	July 1 1924
Butter, Creamery	66,971	62,768	74,446
Cheese, American	34,413	36,834	45,517
Cheese, Swiss	1,660	2,089	5,675
Cheese, Brick	1,722	2,511	2,138
Cheese, Limburger	679	809	751
Cheese, All Other	6,685	6,485	7,943

These holdings include stocks in both cold storage warehouses and packing house plants.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets declined slightly during the week ending July 12. Receipts were heavy and somewhat in excess of immediate demand despite an active into storage movement. Production was favored by good pastures in principal dairy sections. Imports were light.

The average wholesale prices on 92-score butter for the week ending July 12, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending July 12 1924	July 5 1924	July 12 1923
	Cts.	Cts.	Cts.
New York	41.0	41.2	38.8
Chicago	39.0	38.7	37.9
Philadelphia	41.6	41.5	39.6
Boston	41.4	41.2	39.1
San Francisco	39.1	38.5	41.7

The receipts of butter at these markets were 23,749,345 lbs. for the week as compared with 19,647,153 lbs. for last week and 19,037,702 lbs. a year ago.

Wisconsin Dairy Cattle Prices

(Wisconsin College of Agriculture)

Shipments of dairy cattle outside the state totaled 22,165 for the first six months of the year as compared with 22,480 for the first six months of the previous year.

Several complete and many partial dispersion sales have taken place during the months just passed. Some rather sensational averages were evident in at least two big sales. The National Guernsey Sale averaged $1,134. Several of the top priced animals originated in Wisconsin herds. The John Erickson & Sons sale of Holsteins set a precedent for Holsteins the world over, with an average of $1,138.

Canada and Mexico are again buying dairy cattle, having taken several carloads during the winter. It is presumed also that much stock will be purchased by California to replace animals slaughtered during the foot-and-mouth disease outbreak.

Plans are well under way for a big sale of 300 head of grade cows during the National Dairy Show, Sept. 27—Oct. 4. This sale will contain only carefully selected and inspected dairy stock, all of which will have cow testing association records. Many of the animals offered for sale will be shown in the special classes where awards will be made for type and production.

The following table shows prices generally prevailing on grade cows during June:

Extra choice springing cows of good size and type, with C. T. A. records of 300—400 lbs. fat	$125—150
Choice springing cows without records	110—130
Good cows, springers	80—110
Cows, milkers	60— 85
Ordinary cows, fresh last spring	40— 70
Cows slightly blemished	30— 50
Cows, "culls"	25— 40
Choice heifers, 2-yr-olds, springing, record dams	70— 90
Heifers, 2-yr.-olds, Springing	50— 75
Heifers 1—2 years old, open or recently bred	35— 50
Heifers, undersized and thin	20— 35
Heifers, yearlings	25— 40
Heifer calves born last fall	20— 35
Heifer calves 2—6 wks. old (crated)	15— 30

June Prices at Wisconsin Condenseries

(Wisconsin Department of Markets)

The following table gives the prices paid for milk delivered at Wisconsin condenseries during the month of June or, if not available, prices for the previous month are given as noted by a star:

City	Prices to producers per 100 lbs.	Test of basis of payment	Price paid for 3.5% milk
		%	
Berlin	$1.75	4.0	$1.53
Black Creek	1.80	4.0	1.57½
Bloomer	1.75	4.0	1.53
Brooklyn	2.30	3.5	2.30
Burlington (Nestle)	1.80	4.0	1.60
Chilton	1.75	4.0	1.53
Clinton	2.30	3.5	2.30
Columbus	1.75	3.5	1.75
Darien	2.00	4.0	1.75
Delavan	1.80	4.0	1.60
East Troy	1.60	3.5	1.60
Genoa City	2.30	3.5	2.30
Elkhorn	1.65	3.5	1.65
Footville	1.50	3.5	1.50
Fox Lake	1.60	3.5	1.60
Greenville	1.80	4.0	1.57½
Hillsboro	1.50	3.6	1.46
Jefferson (L. M.)	1.50	3.5	1.50
Jefferson (Car. M.)	1.60	3.5	1.60
Johnson Creek	1.60	3.5	1.60
Juneau	1.80	4.0	1.60
Manawa	1.80	4.0	1.57½
Markesan	1.60	3.5	1.60
Marshall	1.75	3.5	1.75
Mayville	1.88	4.0	1.64½
Merton	1.60	3.5	1.60
Monroe	1.80	4.0	1.57½
Monticello	1.80	4.0	1.57½
Neillsville	1.74	4.0	1.52½
New Glarus	1.55	3.5	1.55
New London	1.80	4.0	1.57½
North Prairie	1.60	3.5	1.60
Oconomowoc	1.60	3.5	1.60
Orfordville	1.80	4.0	1.57½
Osseo	1.80	4.0	1.57½
Richland Center	1.75	4.0	1.53
Sawyer	1.55	3.5	1.55
Sharon	2.00	4.0	1.75
Sullivan	1.60	3.5	1.60
Walworth	1.80	3.5	1.80
Watertown	1.60	3.5	1.60
Waukesha	1.70	3.5	1.70
Waupun	1.60	3.5	1.60
West Bend	1.88	4.0	1.64½
Weyauwega	1.70	4.0	1.47½
*Albany	1.65	3.5	1.65
*Belleville	1.65	3.5	1.65
*Denmark	1.65	3.6	1.61
*Fond du Lac	1.69	3.6	1.64½
*Green Bay	1.55	3.5	1.55
*Lodi	1.96	4.0	1.76½
*Menomonie	1.96	4.0	1.76½
*Milwaukee	2.22	3.5	2.22
*Oostburg	1.65	3.6	1.61
*Racine	2.57	3.5	2.57
*Reedsburg	1.96	4.0	1.76½
*S. Germantown	1.75	3.5	1.75
*Sparta	2.00	4.0	1.75
*Stoughton	1.90	4.0	1.66
*Valders	1.88	4.0	1.64½

*Denotes prices paid for May.

Some of the plants on the above list are not strictly condenseries as they make a practice of bottling part or nearly all of their milk and their prices usually run higher than those paid by straight condenseries.

Visitor (at private hospital)—Can I see Lieutenant Barker, please?

Matron—We do not allow ordinary visiting. May I ask if you're a relative?

Visitor (boldly)—Oh, yes! I'm his sister.

Matron—Well, well I'm very glad to meet you. I'm his mother.—Rotary Round Table.

Carload Prices of Hay, Straw, and Feed, July 12, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	31.50	32.00	25.00	25.00	28.00	26.50	27.00	24.50	25.25	26.50	20.00	25.50	....	15.75	
No. 1 Clover, mixed	21.00	....	....	21.00	24.25	....	....	....	21.00	21.00	16.00	..		14.50	....
No. 1 Clover	....	....	....	20.00	....	....	....	....	22.00	18.00	15.00	21.00	....	14.00	....
No. 1 Alfalfa	....	....	....	....	....	31.00	29.00	23.75	....	28.00	20.00	....	18.50	18.75	27.00
Standard Alfalfa	....	....	....	....	....	26.50	28.00	21.75	22.00	22.00	18.00	....	15.50	16.25	25.00
No. 2 Alfalfa	....	....	....	....	....	24.00	25.00	18.75	....	17.00	15.00	17.00	12.00	13.00	24.00
Oat Straw	13.50	15.00	17.00	15.50	17.00	....	....	....	12.00	11.00	9.00	....	8.50	....	....
Feed—Bagged															
Wheat Bran	....														
Spring	30.25	....	30.00	27.00	28.25	29.50	....	....	26.50	24.00	21.50	....			34.00
Soft Winter	....	....	31.00	29.00	30.50	29.00	....	25.50	26.50	....	....	23.00		22.50	....
Hard Winter	....	....	30.50	26.00	...	29.00	....	21.00	26.50	24.50		23.00	20.50	22.50	....
Wheat Middlings	....	....													
Spring (Standard)	31.75	....	31.50	30.00	28.75	31.00	....	....	28.75	27.00	24.00	....	....	....	....
Soft Winter	....	....	36.00	33.00	31.50	34.00	....	....	30.50	....	....	27.50		27.50	40.00
Hard Winter	....	....		33.00	....	30.00	....	28.75	30.50	....	....	....	26.00	27.50	....
Wheat Millrun	....	....	30.50	....	....	30.00	....	....	....	....	23.00	....	....	24.00	34.00
Rye Middlings	....	....	28.00	27.00	....	....	....	....	....	....	19.50	....	....	....	....
High Protein Meals	....														
Linseed	47.00		47.00	46.40	....	....			45.00	42.00	40.00	42.50	45.60	48.50	43.00
Cottonseed (41%)	49.60	....	50.00	49.00	....	....	....	43.00	46.50	47.00	48.50	45.00	....	....	....
Cottonseed (36%)	44.25	....	46.50	45.00	....	37.50	....	38.50	42.50	43.50	44.75	43.00	....	....	....
Tankage (60%)	....	....	....	....	....	....	....	....	....	45.00	50.00	45.00	45.00	50.00	....
No. 1 Alfalfa Meal	....	....	....	....	31.50	....	....	....	26.50	25.50	....	24.00	24.00	21.50	31.00
Gluten feed	44.55	....	43.50	40.30	42.75	....	....	25.50	39.30	37.40	40.00	....	....	....	....
Hominy feed (white)	43.00	....	41.00	....	38.75	39.00	....	....	40.50	38.75	....	37.00	37.00	....	....
Hominy feed (yellow)	....	....	41.00	....	38.75	39.00	....	....	40.50	38.75	40.00	....	37.00	....	....
Ground barley	....	....	....	....	....	....	....	....	39.00	39.00	37.00	....	....	....	42.00
Dried Beet pulp	....	....	....	....	38.00	....	....	....	....	....	....	....	....	....	37.00

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Hall Comes Back

HOARD'S DAIRYMAN:—I have just read Mr. Bosses's reply to my letter and wish to say in reply that I think he has taken a wrong slant at some portions of my article.

I agree with him that a person ought to save money on $8 to $10 per day provided this income is assured every working day in the year.

There are none of these high wage positions that will cover 310 working days unless a man is one of the higher ups in a corporation.

There are a good many people—I will admit—who live beyond their means but you can generally find the sequel in the "for sale ads" of a daily newspaper.

As Mr. Bosse states, I saved money; but to do so I sacrificed much that goes to make for pleasant living.

We bought a quart of milk daily and from this the good wife churned the cream with a spoon to make part of the butter we used on the table. I wonder if his family ever scrimped that close. As for shows, if we saw a two-bit movie once a week, on Sunday, we felt well satisfied.

Increasing consumers and decreasing production will not solve our problems. There is only one way to reach success in this matter and that is a unified movement of the farmers for co-operation. When they get as good a co-operating system as have the dealers we will get what we should have—a profitable price and a ready market for all we have to sell. When the farmers of America get together in one big organization with money enough to take care of those who are obliged to sell—then and then only will we reach the solution of our troubles.

Oregon. H. HALL.

In the Same Boat

HOARD'S DAIRYMAN:—Hurrah for Ed. Jones! Jones, I am in the same boat you are in but almost out of gas. I, too, am in a "gym" most all the time. I am milking 15 cows, retailing milk, and doing all my barn and milk house work. A dairyman and a farmer don't need "gyms". Get up at 3, hit the ball until 7 at night, and some one will hunt a bed, not a "gym".

What does E. C. Ward want with more immigrants? Our need is less immigrants and more 100% Americans on our farms. Renters and help are plentiful if things are so a tenant could live and rent not so high.

Illinois. O. R. WILBURN.

Plan to Lessen Crop Production

HOARD'S DAIRYMAN:—Apropos of present overproduction of farm crops, and incidental low prices and apropos also of depleted condition of many soils, I would suggest that the pending efforts to increase co-operation among farmers be directed also to the following:

Let it become "fashionable" throughout the land to withdraw from crop production for each of the next, say, seven years, one-seventh (a different one-seventh each year) of the tillable area of each farm, by devoting such one-seventh to an intelligent system or plan of soil restoration.

The agricultural press, aided by the Department of Agriculture, the agricultural colleges, and the farm bureau, can develop the necessary sentiment if the plan is deemed to meet the situation.

Maybe the "farm bloc" will see a way to help along, if action by Congress could assist in making the plan popular, or as already stated, "fashionable".

Chicago. J. H. V.

Farmers Over-organized

HOARD'S DAIRYMAN:—Your editorial in the April 25th issue, entitled "Does Wisconsin Need Help", is certainly timely and a well written editorial, and it behooves Wisconsin dairymen to heed the last paragraph —"Prove all things; hold fast that which is good".

It seems to an outsider that there ought to be enough talent and good leaders among Wisconsin dairymen, with the help of their State Marketing Department, to derive ways and means without having to call on Mr. Sapiro and his cohorts who, according to "The Dearborn Independent" are not going around the country organizing the farmers merely for their (Sapiro, et al) health. (See page five in April 12, 1924, issue of D. I. where it states they took $51,000 in fees from one regional association in one year. Good night! No wonder farmers are kept poor when such leaders are hung onto their associations.) On same page mention is made of fat advertising contracts, which reminds one of an ad one of the California Fruit Growers' Associations had in the February, 1922, issue of the Ladies' Home Journal, in which they stated right on that page, showing a copy of the check of $11,000 used for paying for that one ad. Good night, again. They surely must have had to make *some sales* to remburse them for that amount of money for that one ad.

This pooling business may work out all right with milk and cream, but somehow it does not seem to work out properly with us here in the fruit line. The best seem to suffer at the expense of the poor stuff that slips in and seems impossible to keep out.

In this neighborhood the largest growers and those that have the money simply won't come into our co-operative association at all, leaving the small growers (about 50 of them) to hold the bag, and it is certainly some proposition, and it's a question of how long they will or can hold together. As far as our own experience goes, we have lost money each of the past three years now by putting our fruit through the local association.

Seems to me farmers are being *over*-organized; too many wheels within wheels. Personally I would not sign a five-year contract with any co-operative for any commodity.

Michigan. FRUIT GROWER.

City vs. Farm Life

HOARD'S DAIRYMAN:—To Mr. H. Hall of Oregon who doesn't like city life on a salary of $8 or $10 a day nor house rent at $25 to $100 a month, I will suggest that he is in all probability getting his money's worth in house rent even though his wife elects to live in a $100 a month house, as we find it difficult to get 7 per cent net on our own investment in city property.

If he has been able to save nothing from his salary and has to borrow money for a farm and farming equipment, his taste, nor that of his wide, need not run very wild to be required to pay $100 a month interest.

Of course living expenses are somewhat less on the farm than in the city but our records show that four-fifths of our expenses are operating expenses and everybody on the place has to "hop to it" to get that free milk and meat truck together to keep the living expenses down to the remaining one-fifth.

If a city man decides $100 a month is too much rent he can move to a cheaper house without lowering his income, whereas if a farmer learns his expenses are too high his only solution is to sell off some and in so doing he lowers his income and is not benefited.

Mrs. City Wife complains about the price of market vegetables, etc., and does not realize that the peas were the farmer's first picking and the potatoes his best, for many times do farmers find it necessary to part with the first fruits of their land for money to keep their operating expenses on a cash basis.

It is a joke to a farmer, paying as we have done $3 an acre for 50 acres of timber on a rented farm, good for nothing to us but fire wood; $150 a year cash for "free fuel", and then have to cut and haul it.

It is a delicious experience for the farmer to keep out all the milk his family needs but when he sets several cans of the same milk on the milk stand at 12c a gallon and remembers his investment in cows and land and labor, he wonders if his own milk was free. His meat is gained by the same rule, investment of capital, and rentless labor and is not free.

How the city man hates the water and light bill! But how glad would the farmer be to have a water and light system without planking down the entire cost of an individual system and installation!

Many times the farmer hungers for nicer clothes. But the year comes when the crop fails and he goes to friend banker to borrow his interest or taxes or both. Surely no city dweller wants the experience.

Illinois. (MRS.) SAM ALEXANDER.

Unearned Increment A Mental Illusion

HOARD'S DAIRYMAN:—I note in the O. B. and B. column of your issue of May 23 that Mr. McKnight still refuses to argue a point which I have now made 3 or 4 times, viz., that, not alone rental value, but all values are created by economic demand. Such refusal on his part would seem to indicate that he has the best of reasons for it—in other words, he finds such argument hard sledding.

That there is an apparent unearned increment of land values in centers of population will not be denied. While even our single tax friends would not contend that government or society has earned this increase any more than, according to their way of thinking, the holder of the title has earned it, still there would seem to be some slight justification for governments taking the increase for taxes on the theory that nobody has earned it and that "finding is keeping".

The situation reminds us of the experiment in optics which we learned when we were school-boys. You make a drawing of a bird cage. Two or three inches to the right of the cage you draw a bird—not too life-like, but something that will represent a bird. Now hold your drawing directly in front, and within about 2 inches, of your eyes and look at it intently for a few seconds. The bird will go into the cage.

You see the bird go into the cage just as plainly as you ever saw a bird in nature flit from branch to branch of a tree and yet you know that the bird in your drawing does not move. The phenomenon is an optical illusion. In like manner the "unearned increment" of land values of the single taxer is a mental illusion, due to superficial thinking, and reflects no credit on the acumen of our erudite single tax friends who would have us believe that they take "digging deep into the soil of economic knowledge" along with their daily dozen.

Mr. McKnight says that the "mere presence" of people gives value to the land. That this is a fallacy shall now be set forth.

Thirty-four centuries ago, or thereabouts, in a desert between Egypt and the land then known as Canaan, but latterly as Palestine, there was present an Israelitish horde, variously estimated from 600,000 to 2,000,000, fleeing from Egyptian bondage. Their presence there did not add anything to the rent-value of the locality. The desert was already nearly worthless but became more so until the Lord Almighty had to feed His people with "bread from heaven" and water them from the smitten rock.

There are today 2,000,000 Israelites on Manhattan Island and its environs, known as greater New York. Their "mere presence" adds no more to the real estate values of New York City than did the presence of those other Israelites add to the value of the desert of Arabia Petraea. Their presence as producing, but more particularly as consuming, units is what raises the price of "market stalls" in New York. In other words, it is not the presence of population that makes land valuable, but rather the agricultural or mineral resources, adjacent fisheries, or the strategic position of a locality that makes a large population possible.

Moreover, the so-called "unearned increment" is not unearned. It is as rightfully earned as any return on capital is ever earned. There would never have been a dollar of capital in the world had there not been the reasonable expectation of a return on money invested. Without capital there could have been no civilization and we would still be cave-men.

Someone fond of figures has computed that if the $24 paid to the Indians for Manhattan Island about 300 years ago had at that time been put at compound interest, it would by now have amounted to a sum practically equal to the entire valuation of said island, minus improvements. What becomes of your unearned increment? Million dollar building lots in New York or Philadelphia have passed through the hands of a great many owners. Some have made a profit on their investment; others have suffered loss. If government is not to reimburse those who have lost, why should it appropriate the profits of those who have made good?

The mental-optical illusion of the single taxer is due to the fact that the imagination leaps back to the time when the fruitful valley or the populous city was a howling wilderness. He sees it as it is today and jumps to the conclusion that all this value just "happened" while the owner slept and that therefore the latter could not possibly have earned it. This specious fallacy will be readily corrected by a little straight thinking.

Yes, the farmers pay too high taxes today. A. N. PETERSON.

New York.

Man's greatest inspiration is service. "He who is the greatest amongst us, let him be the servant of all."—RT. HON. RAMSAY MACDONALD.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Fitting the Dairy Calf for the Show Ring



1—The first operation is to wash your calf in a good suds. This you can do a week before fair time. Of course, it is taken for granted that you have had your calf blanketed for some time before this, several weeks at least. Blanketing keeps the calf clean, keeps the flies off, sweats and loosens the hide, and makes the hair lie smoothly. In washing, don't be afraid to use a lot of elbow grease.



2—It is quite important that you give the switch a thorough washing. If the switch is white you can rinse it out in a little blueing water. Oftentimes, the night before showing, it is a good plan to braid the switch and tie it up to keep it clean. Unbraiding just before entering the show ring and combing makes the switch curly and fluffy.



3—After the calf has had its bath be sure to blanket it so that it won't catch cold. In putting on the blanket begin at the neck and roll it back in the manner shown above. This makes the hair lie smoothly and in the proper direction.



4—Trimming the hoofs is the next operation. Lift the fore leg with the left hand, holding between the legs as shown here. With the knife firmly grasped in the right hand, clean out the under parts of the hoof and trim the toenails. This may be done before leaving home for the fair.



5—If your calf has horns they will need attention. They can be polished so they fairly shine. The first step is to scrape off the surface of the horns either with a rasp, as shown here, or with a small piece of glass. Be careful not to rasp too deeply; if you do, you will draw blood.



6—Follow the rasping with a thorough emery paper rub. Taking a short strip of emery paper in your hands rub around the horn as above.



7—To finish off the polishing rub vigorously with a flannel cloth dampened with a little sweet oil. This operation is just like polishing shoes.

Fitting a dairy calf for the show ring is no over night job. It takes months to get a calf in shape to win in the show ring as Dorothy Domke said in her article "Showing a Calf to Win". If you haven't begun to get your calf ready for the fair yet, you'll have to get a hustle on you.

For one thing the calf must lead well. Perhaps you have found out already that this alone takes considerable time. A calf must be taught to stand so that she will show off to the best advantage. A calf must be fed and taken care of right, so that she will be in good flesh and good health when fair time comes.

The illustrations on this page show you how to "dress up" your calf so she will appear at her best when shown. These pictures were posed especially for the junior department of Hoard's Dairyman by two well known showmen, Ray Klussendorf and his helper, Verlyn Sears. Mr. Klussendorf fitted and showed the grand champion Brown Swiss bull at the 1923 National Dairy Show. We hope that you junior showmen will get much help from this material.

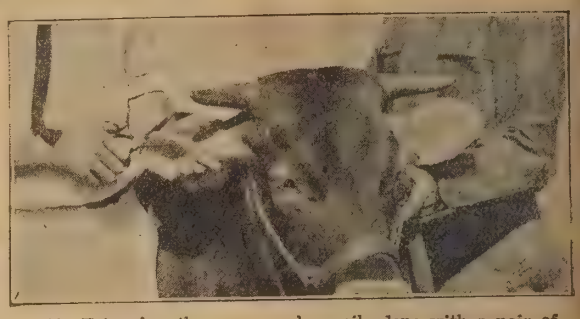
There are a few very useful articles that every showman ought to have. An outfit would include: a bar of soap, a pail, a scrub brush, a blanket, a sharp knife, a rasp (or a piece of glass will do), some emery paper, flannel cloths, sweet oil, pomace stone, clippers, a pair of shears, curry comb, and brush.



8—It is sometimes well to clip your calf all over a week or so before the fair, particularly if its coat looks a little shaggy. At any rate before entering the show ring be sure the tail is clipped and the head trimmed up. Best results will be secured by clipping against the grain of the hair. Hand or power clippers may be used.



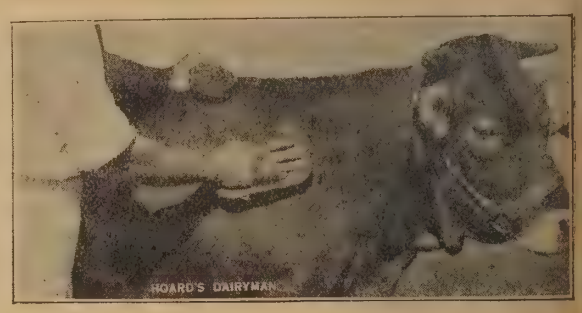
9—This shows the manner of clipping the head, particularly around the horns. Notice that he is clipping the "wrong way" of the hair. On the other side of the head the clippers would also point in as the hair lays in different directions on the forehead.



10—Trimming the ears can be easily done with a pair of shears as shown here. The important thing is to cut out the long hair that grows inside the ears. If your calf has a yellow secretion in its ears, don't remove any of the secretion.



11—In removing the blanket, grasp it at the neck and pull it back in this manner. You are then pulling in the same direction that the hair lies and will not ruffle it up.



12—For weeks, and even months, before fair time you have been diligently brushing your calf every day. Never neglect this daily duty. It not only gets rid of the loose hair and smooths the coat out but it massages the skin, thus aiding circulation, and altogether puts the hide into good condition.



13—No special equipment is needed for this job. It is hard to beat a good hand rub, following the brushing, to make the coat glossy. Use lots of elbow grease, putting one hand over the other in windmill fashion and rubbing with the grain of the hair.



14—The finishing touches can be put on your calf by a gentle rub-down with a flannel cloth moistened with sweet oil. The latter can be obtained at a drug store. You remember that Dorothy Domke even took her rubbing cloth into the show ring with her.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Many of you juniors are interested in building a good dairy herd. Some day perhaps you will have a herd of your own. A good start is half the battle. You will find many splendid pointers in the article "Selecting Animals for the Dairy Herd" written by E. B. Fitts, in the July 18th issue of Hoard's Dairyman. In this issue also you will find a partial answer given by Professor Fraser, University of Illinois, on what to do when bluegrass fails.

What should you consider in selecting a breed of dairy cattle? In the first place, you want the kind of cattle in which you yourself are most interested. In the second place, it is well to consider the breed common in your community, because this gives you considerable advantage in marketing both your products and your surplus cattle. As perhaps you know there are five important dairy breeds which are Holstein, Guernsey, Jersey, Ayrshire, and Brown Swiss.

How can you pick out a good cow? In selecting individuals for your herd consider first the production of the animal which you are purchasing; second, the production of the dam—if there are records available—and the records of her sire. There are also certain outward indications which enable you to select a good producer. You look for a big barrel showing capacity, for a good udder, for a shapely head with prominent bright eyes and a large muzzle, and for an angular appearance.

How about the selection of a sire? It has been truthfully said that a sire is half the herd. It is important that you have a good sire. The safest method in sire selection is to choose a proven sire, that is, one whose daughters in milk have proved to be good producers and of good type. Bulls inherit the milking qualities of the cows from which they came. A good sire may increase the production of a herd from 50 to 100 per cent, or an inferior one may decrease it by an equal amount.

Describe the government plan for loaning bulls. Out in the West—Wyoming and Montana—there is a plan for the use of pure-bred Holstein-Friesian sires, fostered by the Dairy Division of the United States Department of Agriculture. Two yearling bulls have been loaned to two groups of farmers by this plan. These bulls were obtained from the Huntley Experiment Farm in Montana. Some of the rules governing the lease of these pure-bred sires are that the farmers feed and care for the bulls at their own expense, keep their herds free from tuberculosis, keep accurate milk records, keep the heifers until they have freshened once, be subject to inspection by the department of agriculture, and to return the bull to the department in as good condition as when obtained. Also all expenses for veterinary services are paid by the farmers. (See article "Loaning Bulls".)

Name and tell how the new two-year-old Jersey champion was fed. Raleigh's Torono's Meme produced 902.15 lbs. fat containing 16,085 lbs. milk, with an average test of 5.6 per cent fat, establishing a new year-ly record for junior 2-year-old Jerseys. While on test she was fed 18 lbs. of the following mixture daily: 250 lbs. ground oats, 200 lbs. wheat bran, 150 lbs. oil meal, 50 lbs. cottonseed meal, 100 lbs. gluten feed, 100 lbs. hominy feed, 15 lbs. salt, and 8 lbs. mineral mixure. This feed was mixed with wet beet pulp. She received 35 lbs. of silage daily and alfalfa was before her at all times.

How can cows be economically fed when bluegrass pasture fails? They may be pastured on alfalfa if proper precautions are taken to prevent bloat. Among the most satisfactory and economical supplements to bluegrass, when other pasture is not available, are corn silage and alfalfa hay. (See "Ever Failing or Never Failing Pasture".)

Where does the permanent bluegrass pasture have a definite place? There are some areas which may be called natural pasture lands—hilly places, rocky slopes, badly washed land cut by streams or covered with trees and bushes, and areas impossible to drain. This type of land makes up 16.3 per cent of farm land in the nine chief dairy states.

Do You Know About the Power Take-Off?

The Greatest Improvement in Ten Years Is a Feature of the McCORMICK-DEERING *Tractor*

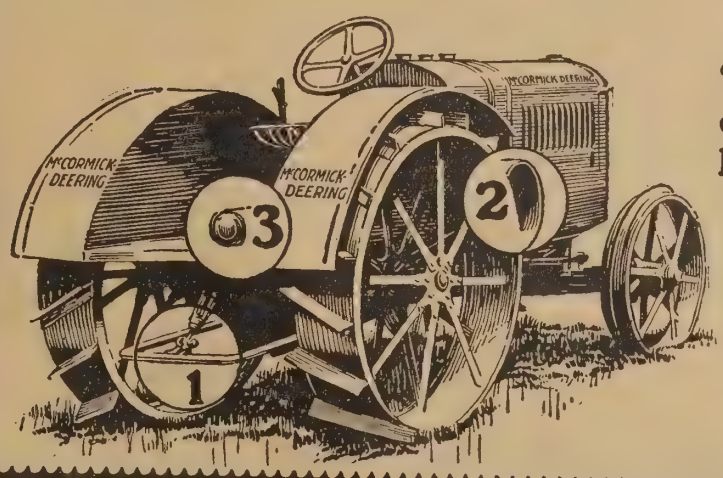
THE Power Take-Off helps you use the McCormick-Deering Tractor not only to *pull* your machines but to *run the mechanism of the machines* by power conveyed direct from the tractor through a revolving shaft.

This feature opens up great new possibilities for more efficient and bigger-scale operation behind McCormick-Deering Tractors. It does away with such well-known troubles as slipping bull-wheels, clogging and stalling where the ground-gripping action of the machine is not sufficient to run it.

The corn picker is one of the machines that demonstrates the value and efficiency of the Power Take-Off. Many corn fields will see its use this season. Grain binders [the new McCormick-Deering 10-ft. tractor binder which cuts 30 to 40 acres in 12 hours], rice binders, spray pumps, etc., may all be run under difficult conditions, when the tractor power *runs* them as well as *pulls* them.

McCormick-Deering 10-20 and 15-30 are especially designed so that this useful equipment can be added. You may not need it right away but it is ready when you want it in years to come. Make sure the tractor you buy is made for the power take-off and you will find it has all these things, too—crankshaft and crankshaft ball bearings guaranteed for life, removable cylinders, unit main frame, ball and roller bearings at 28 points, throttle governor, belt pulley, platform, fenders and brake. Write for a catalog or see the dealer.

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The Three Sources of McCormick-Deering Power—

1. **The Drawbar**
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3. **The POWER-TAKE-OFF**

A Little Georgian Peach

Hoard's Dairyman Juniors:—I am one of your new club members. I received my Jersey button and necklace. I like them very much. I wore the Jersey button to school. I am a little girl ten years old. I have dark brown, curly hair, and weigh 100 pounds.

My Daddy is a graduate veterinarian but is working with the State Extension Force now. He has boys' pig clubs and calf clubs and teaches the boys how to judge live stock. I go with him to visit the clubs in the summer when there is no school. I am getting to be a pretty good judge myself. I know all the different breeds of cattle and hogs.

We have a new home Demonstration Agent. I am going to belong to a poultry club. I am going to try a setting of Jersey Black Giants. I want to see how big I can make them grow. Daddy is going to make me some capons and I am going to show them at the fairs if I have good luck.

I will be glad to hear from any of the juniors and will answer your letters. My address is Waycross, Ga. Marie Heyde.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

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STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

My entire herd of Registered and high grade Holsteins. Just finished their second T. B. test, all clean. Would like to exchange my bull, Pinehurst Melchior Sir Ormsby No. 291577. His two nearest dams average, butter 365 days, 1094.26; butter 7 days, 32.50. W. J. GOLLMER, Apple River, Ill. 1-2

We offer another car of extra high grade Guernseys, three to five years, due to freshen from August first to September first; could furnish some July cows if desired. We feel that no finer, more uniform lot of cows was ever offered. Good size, fine conditions, exceptionally well marked, perfect udders. These cows will easily milk from 45 to 50 lbs. per day twice milking and have been selected as future trade builders for us in the locality that is fortunate to obtain them, from about 500 head. Federally tested, terms cash, prices reasonable. If you need them don't waste time in writing; come and inspect them. Also a few registered fall cows and some grade heifers bred from three to six months. One very fine registered first calf heifer due in July. MARA ALVA FARMS, Smithville, O. 25-*

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

For Sale—Registered Guernseys, male and female, of May Rose Bell Buoy of Linda Vista breeding, who has 32 A. R. daughters with records up to 769 lbs. fat. $50 and up . Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 23-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Conkles Dairy Farm offers one carload of Registered Jersey bred heifers, T. B. tested, will freshen in fall and early winter. This is a good lot at a reasonable figure. CONKLE'S DAIRY FARM, Layland, Ohio. 1-4

Ayrshires—Choice cows and heifers. Good breeding, tuberculin tested. Price reasonable. CHAS. DUNBAR. Elkhorn, Wis. 1-2

Hereford Cattle for Sale. 163 yearlings, 186 two year olds. Sell one load or all. A. C. WISECORUER, Fairfield, Iowa. 1-3

For Sale, Guernseys—Our Junior Herd Bull; sire, Glenwood Champion; dam, daughter Langwater Demonstrater—nothing better, $300.00. Also two year old grandson Beauty Eagle, $150.00. Also eight months show calf, $100.00. Inquire SUPERINTENDENT, La Belle Knoll Farm, Oconomowoc, Wis. 2-2

Proven Ormsby Johanna Holstein show bull; dam has 902 lbs. butter in Sub. B. Federal accredited. A bargain. GEORGE A. HOWARD, Dousman, Wisconsin. 2-3

For Sale—Real herd sire. 35 lbs. seven days, 1335 lb. yearly record dam. Price $750. Further particulars write O. WESTERHEIDE, New Douglas, Illinois.

For Sale—Holstein ton show bull, grandson of Dutchland Colantha Sir Inka. No reasonable offer refused. WEILER FARM, Warren, Pennsylvania.

Fine Herd Registered Holsteins to place on shares. FRED HARRIMAN, Appleton, Wis. 2-3

STOCK WANTED

Wanted—One registered Holstein bull calf, also two heifer calves from high producing ancestry. CARL HENN, Jefferson, S. D. 1-2

Wanted—About 60 cows from Federal Accredited herds. Guernseys or Ayrshires, registered or good grades. Address, with description and price, CEDAR HILL FARM, Waltham, Mass. 1-2

Wanted to purchase Holstein bull whose dam and sire's has produced at least 1000 pounds of butter in 365 days. Send full particulars. L. B. CLARK, Maywood, Mo.

Wanted—Large Guernsey herd for city milk trade. Must pay profit as it goes. Successful dairy farmer and milk man wants cattle and fully equipped farm on shares without investment. Describe fully. Address BOX 211, care Hoard's Dairyman.

SWINE

Hampshire Hogs for Sale—The Hampshire hog is at home in the dairy comunity as they are good rustlers. We can give you a good start with a small investment. E. G. LEWIS, Media, Ill. 24-8

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Pure-bred Airedales. Extra fine pups. FRED SCHROETER, Grafton, Wis. 26-4

MISCELLANEOUS

Pictorial Postcards to Order. 1000 for $10. OFFSET GRAVURE CORP., 351 West 52nd St., New York. 1-4

FOR RENT

Modern Dairy Farm, 241 acres, can divide. Highway 19 east of Madison. Condensery, town, ¼ mile. Address Owner, BOX 186, care Hoard's Dairyman. 1-2

MACHINERY

For Sale—2 unit De Laval Milker, Pulso pump and relays, everything complete, never been used; No. 98 De Laval Clarifier; 100 gallon Manning Pasteurizer; No. 3 Eureka steam boiler; steam turbine bottle washer with wooden washing vat; No. 4 Wright automatic bottle filler; 20-10 gallon cream cans; 1 bottle Torsion balance cream test scales, new; Friday butter printer with 3 30-lb. vats; 60 gal. power butter churn; 1½ horse, 32-volt electric motor with rheostat. This machinery is all in A-1 shape. WM. WEIBLE, Box 391, Chappell, Nebraska. 6-*

Cletrac Crawler Tractors—Used and new. CHADWICK BROS. CO., 430 Broadway, Milwaukee, 25-4

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 25-10

For Sale—One two end bottle filler and a quantity of 2 inch insulation cork. HENRY JUERGENS, Hartford, Wis. 26-4

Wanted—Ensilage cutter. FOWLER ESTATE, Lake Villa, Illinois.

For Sale—Perfection milker complete. Two double units, extra bucket. $175.00. ROSS KEYS, Nortonville, Kansas.

DAIRIES

Colorado Dairy—50 excellent Milking Shorthorn and Holstein cows with 30 acre dairy farm equipped with modern house, modern dairy barn and milk house, De Laval milking machine and separator, milk team and wagon, one 5 room and one 2 room house. Electricity. Help scarce, reason for selling. Fine opportunity for man with grown children for partners. Price $7500. K. T. McKNIGHT, Telluride, Colo.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

TOBACCO

Homespun Tobacco: Chewing, five pounds $1.75; ten, $3.00; smoking, five pounds $1.25; ten, $2.00; pipe free, pay when received. Tobacco Guarantee. CO-OPERATIVE FARMERS' Paducah, Ky. 1-4

BUTTERMAKERS

Wanted—A buttermaker. Must be industrious, and clean character. State price and experience in first letter. E. G. LEWIS SEED CO., Media, Ill. 26-4

SEEDS AND PLANTS

Your Seed Will Sell Rapidly if you advertise it in these columns. Rate is ten cents per word including address. HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 26-*

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

FEEDS

Soy Beans for Feed. Many Agricultural Colleges recommend soy beans to replace oil meal for dairy cows. We offer a limited amount of ground or unground at bargain prices. E. G. LEWIS SEED CO., Media, Ill. 24-8

Alfalfa, first cutting, $17. Must make room by August 10. HIRAM MICHELS, Peebles, Wis. 2-2 UNDER DAIRIES

Hay for Sale—125 tons new hay, 3rd alfalfa, $15 f. o. b. Twin Lakes, Wis. BELVOIR FARMS, 1128 Wis. St., Lake Geneva, Wis.

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

FARMS FOR SALE

Farm land prices are low and terms easier than they will ever be again in the Northwest. Low round trip homeseeker and summer tourist tickets to Minnesota, North Dakota, Montana, Washington and Oregon. Free descriptive book. E. C. LEEDY, Great Northern Railway, Dept. 82, St. Paul, Minn. 23-*

Register and Secure a Farm. This giant company has already started hundreds on its wonderful colonization plan. You can get a rich clay loam dairy farm close to big towns and good markets. Many neighbors. Only $2000 for a forty with good barn, nice house, best milk cows. Only $100 deposit required and balance in 10 years. A greater opportunity than a U. S. Homestead. Particulars sent free. NATIONAL LAND COLONIZING CO., Dept. E. 7, Madison, Wisconsin. 24-4

Minnesota offers opportunities to farmers. Send for free map and literature. O. H. SMITH, Commissioner of Immigration, Dept. 676 State Capitol, St. Paul, Minnesota. 25-9

Wyoming—Colorado Irrigated Land. Priced to sell. Attractive terms. Ideal location. WHEELER REALTY CO., Bloomington, Ill. 1-4

Auction Sale to settle estate of Wm. Barthel, deceased, Aug. 16, 1924, 2:30 p. m., Milledgeville, Ill. Well improved 240 acres ½ mile from town. Also 120 acres 4 miles south of Shannon, Ill. Positive sale. Write for information. DOROTHY BUSWELL, 245 Mary St., Flint, Mich. 1-2

200 acre stock and sheep farm, well improved and equipped. Good buildings. 3 miles from Mille Lacs Lake. $75.00 an acre. Your own terms. FIRST NATIONAL BANK, Milaca, Minnesota. 1-4

Look, Look. Fine improved farms in Shawano, Oconto and adjoining counties. Prices right. Send for free picture catalog of this alfalfa, potatoe, and dairy section. Deal direct, no commissions. WISCONSIN FARMERS' & HOMESEEKERS' SERVICE BUREAU, Marshfield, Wis.

For Sale or Rent—Possession January 1st. Fully equipped Dairy Farm. Herd of pure-bred and grade Guernseys. Only dairy furnishing milk to town of over four thousand people. Sole reason for selling have not time to properly look after. Our milk selling 15c to 20c per quart. Address Owner, D. L. TUGGLE, Blackstone, Virginia. 2-2

Lands for Sale in famous Swan River Valley. Low altitude, long sunshine, abundant precipitation. Ideal soils. No drifting winds. Write BETTES CO., Swan River, Manitoba. 2-2

For Sale—Retail dairy, only pasteurizing plant in town of 4500. Equipped with ice machine. Address BOX 210, care Hoard's Dairyman.

Register and Secure a Farm. Hundreds have already started on our wonderful colonization plan. Come and see their fine new homes. We will also help you start in Wisconsin. You can get 40 or 80 acre dairy farm for only $100 deposit and balance in 10 years. Close to big towns. Many neighbors. Best richest gently rolling Wisconsin clay loam. Only $2000 for 40 with nice house, good barn, best milk cows. A greater opportunity than a U. S. Homestead. Particulars free. NATIONAL LAND COLONIZING CO., Dept. F7, Madison, Wisconsin.

For Sale—195 acre stock or grain farm in Butler County. 7 room house, barn for 20 cows, cement silo 12x40; land number one first and second bottom, excellent for corn and alfalfa, wonderful blue grass pasture, all fields watered with spring or fresh running water. Price in keeping with times, liberal terms. J. F. KYGER, 116 High St., Hamilton, Ohio. 2-2

For Sale—Six hundred acre dairy farm. Good house and barn, fine water. Near a live town and Carnation Milk Plant. Price and terms to suit. Address WINSLOW B. ROSS, Cambridge Springs, Pa. 2-4

Owner of good Central Wisconsin farm will give right man exceptional opportunity with small payment down. E. HAWKS, 4406 Pabst Ave., Milwaukee, Wis.

Official facts on Wisconsin farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis. 2-4

Pennington County, Minnesota. Come into the best dairy and diversified farming section in the state; fine black loam with a clay subsoil, heavy in lime. The natural home of alfalfa. Write to FARMERS' AND MERCHANTS' STATE BANK OF THIEF RIVER FALLS, Minnesota, for information regarding some real snaps as to value and terms. 2-4



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, willing to accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

High Class Dairy Workers Wanted; barn and milk room. Good wages paid good men. Booze drinkers need not apply and the use of tobacco in any form prohibited while at work. If you are a good worker, clean and intelligent, looking for a permanant place, write us. HAPPY FARMS DAIRY, P. O. Box 139, Miami, Florida. 19-*

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150—$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 25-4

Wanted—A good dairyman, single preferred. Will pay $50 per month, with board, room and washing. Pleasant surroundings. P. A. DICKSON, Clay Center, Nebr. 25-4

Get U. S. Government Life Jobs. Men—women—18 up. $95 to $250 month. Steady work. Paid vacation. Short hours. Common education usually sufficient. Pull unnecessary. List positions obtainable and specimen questions—free. FRANKLIN INSTITUTE, Dept. N108, Rochester, N. Y. 26-4

Wanted—Married man competent to take full charge of a twenty cow dairy, registered Holsteins. O. V. BELL, Bellefontaine, Ohio. 1-2

Wanted—Working herdsman to take charge of Jersey herd and handling of milk. Address stating wages, "ROSE WAY FARMS", N. A. Pierce, Mgr., Paoli, Pa. 1-2

Wanted—Married man, middle-age, with help to run farm and dairy. We have all pure-bred Ayrshires. Man must understand dairying. Good opportunity. AYRSHIRE BREEDERS' & DAIRY CORP., S. S. Hess, Manager, Freeland, Pa. 1-2

Wanted—Man and wife on small dairy and poultry farm, near Frederick, Maryland. Also helper. Wife to assist in house. All modern equipment on farm and in house. Apply stating experience, salary, and reference to BOX 209, care Hoard's Dairyman. 2-2

Good 98 acre farm for cash rent, being equipped for 12 cow dairy. Investigate this. J. S. VORIS, Franklin, Indiana.

Wanted—Working herdsman with experience in making A. R. records and clean milk, to take charge of Guernsey herd. Married man preferred. Reference required. M. T. PHILLIPS, Pomeroy, Pa. 2-3

Wanted—Experienced married man to work on dairy farm. Pure-bred Jerseys. Start work September 1st. RAY C. THOMPSON, Blythedale, Mo.

Wanted—Married truck driver for retail milk route August fifteenth. ROY ATWOOD, Grand Ridge, Ill.

Milkers Wanted—Good wages, good board and room for single men; house, garden, etc., for married men. Address BOX 213, care Hoard's Dairyman.

Wanted—High class herdsman, one who can get results in feeding cattle for high milk production. Only one with experience need apply. State salary expected. Address BOX 212, care Hoard's Dairyman.

Wanted—Competent housekeeper, companion, on small dairy farm. Family of four. Comfortable, modern house. Advantages. Write MRS. A. R. G. DALBY, Grandville, Ohio.

Wanted—Man with family to care for herd fifty cows. 17 miles from Washington. D. C. W. C. WATKINS, Rockville, Md.

POSITION WANTED

Married, working manager open for proposition between now and September 1st. At present am manager of large wholesale and retail routes and farm also. Understand how to produce any kind of milk and am a No. 1 herdsman. Reason for leaving here, changing hands. State wages and full particulars in first letter. WILLIAM HENRY, Gilman, Ill. 1-2

Manager—Graduate Veterinarian, of stock farm or dairy. Experienced in all branches of dairying and swine husbandry. Bigger the proposition the better. Married, 34 years of age. Open for position August 15. References exchanged. Address BOX 201, care Hoard's Dairyman. 1-2

Position Wanted by a long experienced, honest, reliable herdsman, aged 34. Holsteins and central or western state preferred. Address BOX 208, care Hoard's Dairyman.

Position as manager or foreman wanted on good, well equipped farm in South by Oct. 1st. Married, thorough experience in general farming, livestock, dairying, etc. Pure-breds and grades. Would be interested in pure-bred dairy proposition. Reference. Address BOX 214, care Hoard's Dairyman.

Wanted—Position on dairy farm by young man and wife. Wife to help with milking and light chores. State wages. CARL OPELT, R. 2, Neillsville, Wis.

Middle aged, married man wants position as manager or foreman on modern dairy farm. Thoroughly experienced. Best reference. Pure breds preferred. Address BOX 215, care Hoard's Dairyman.

Herdsman—Dairyman—Wants position August 15. Life experience live stock, 10 years A. R. work. 4 years present position. Scotchman, age 32, married, one girl, age 3. WILLIAM AULD, Maple Shade Farm, Box 16, Pomeroy, Penn.

Working Manager or Herdsman open for engagement. Experience stock, general crops, soil improvement. Address BOX 219, care Hoard's Dairyman.

Manager—Married, middle aged, agricultural graduate, fully qualified by experience and mature judgment for first class position on pure-bred live stock farm. Address BOX 218, care Hoard's Dairyman.

Farm manager now open for a position as superintendent of a large modern farm or private estate. Life experience with pure-bred cattle, stock raising, producing certified milk, feeding, farm and help management, buying and selling; have also owned and operated my own farm. A 1 references. Address BOX 216, care Hoard's Dairyman.

Farm Foreman open for position immediately on account of death of employer. Married, life experience on large farms. Best of reference. Address BOX 220, care Hoard's Dairyman. 2-2

Wanted—Position as herdsman by Hollander, age 23. 5 years' experience in the care and feeding of cattle. CHARLES BOUMA, Colver, Pa.

Married man, Hollander, 28 years old, no children, wants position on large dairy farm. Life time practical experience. Condition and salary first letter. Address BOX 217, care Hoard's Dairyman.

Walker Dairy Fellowship

Among the gifts announced at the commencement exercises of the University of Vermont is one providing a $1,000 post-graduate fellowship for three years in the Dairy Department of the College of Agriculture. It is suggested by the donor, George H. Walker of Massachusetts, that a study be made of the production and handling of milk on relatively small farms and plants, of the feasibility under such conditions of producing and marketing milk which is chemically and bacteriologically clean and uniform in its fat content, and of the practicability of doing this at a not undue increased cost of production.

Mr. Walker was born in Vermont and is the founder of the famous Walker-Gordon Laboratory Company which supplies "certified" milk throughout the more thickly settled portions of the North Atlantic States. He is still actively engaged in the management of this enterprise which was the forerunner in the country, if not in the world, in supplying a safe, cleanly product for infant feeding. He has made a great success of his business from every point of view.—Vermont College of Agriculture.

UNION PACIFIC SYSTEM — OVERLAND ROUTE

Dairy Development

is going ahead faster in some of our Western States than in others, because in such States the fact is recognized that those districts in which dairying and balanced farming are carried on, extensively, prosperity reigns; that, although those lines of endeavor mean continuous employment, a steady stream of cash flows in.

Idaho offers exceptional opportunities to "dairy-minded" persons, and, if you will drop me a line, I'll be glad to send you, absolutely FREE, a copy of our illustrated folder entitled, "Dairying in Idaho." Ask me for information covering Round-Trip Special Homeseekers' Excursion Fares, in effect March 4 to November 18, 1924.

R. A. SMITH, Supervisor of Agriculture,
Union Pacific System
Room 4, Union Pacific Building
Omaha, Nebraska

HOLSTEIN-FRIESIAN REDUCTION SALE
GREAT SHOW BULL

Pietertje Ormsby Gerben Piebe No. 363640. Three years and fit for the National Show. Grandson of King Pietertje Ormsby Piebe No. 16597. The greatest sire of show cattle. And two Homestead Ormsby bulls; one A. R. O. cow; one fresh cow; one granddaughter and two great granddaughters of "37th". Sale July 29, 2 P. M. sharp.

FLINT HILL FARM, Jo Daviess County, Ill., on Grant Highway, one mile east of ELIZABETH, ILLINOIS

YOUR OPPORTUNITY

AN ACCREDITED HERD

9—Registered Holstein Females—9

FOR $1,000

5 young cows in milk, 1 bred yearling, 3 six months old heifers. Heavy producers, sound and right. Forced sale, act quickly if you want them. Choice breeding, 3 are granddaughters Pontiac Korndyke, 4 are granddaughters of "Clara Clothilde Lyons" former world's champion and one granddaughter of Sir Korndyke Pontiac Artis. Satisfaction Guaranteed. Also fine yearling grandson of "Champion Echo Sylva Pontiac" for $125.00. Address—

M. H. KEENEY
Cedar Grove .. .. New Jersey

A Brown Swiss Champion

HOARD'S DAIRYMAN:—Knowing that you are interested in the progress made by the various breeds of dairy cattle, I am sending you a picture and a short review of a new world's record made by Buster's Pride 11260, a Brown Swiss cow owned by Jubilee Farm of Illinois. She has just qualified in the 305-day division of the 4-year-old class with a record of 12,500.3 lbs. milk and 552.59 lbs. fat, which exceeds the former record for the class by more than 41 lbs. fat.

As a three-year-old Buster's Pride has a record of 11,946 lbs. milk and 555 pounds fat. The world's record just completed was started after a very brief rest period and was in the process of making while the cow was a member of our show herd last fall.

Showing as a four-year-old Buster's Pride won first place at the Wisconsin State Fair, and second place at the Minnesota State Fair, the Illinois State Fair, The Dairy Cattle Congress, and the National Dairy Exposition. In addition to these winnings she was third prize junior A. R. cow at the Dairy Cattle Congress and the National Dairy Show.



A new Brown Swiss Class Champion, Buster's Pride, owned by Jubilee Farms of Illinois, takes first place in the 305-day division of the 4-year-old class with a record of 12,500 lbs. milk containing 552.59 lbs. fat.

Buster's Pride was bred by Sam Moser of Illinois, and was purchased by Jubilee Farm as a calf in the Morton Sale. Her sire is Buster Brown G, a son of the famous show bull, Myone Boy. Her dam is Dairy Maid of Tremont, who is a daughter of Dairy Rose, the grand champion cow at the 1923 Illinois State Fair.

Illinois. R. C. KLUSSENDORF.

National Dairy Exposition

The best we can do is to repeat the recommendations passed at these conferences and let you judge for yourself. Here they are, approved by the Show Management:

1. "As a means of creating interest in the relation of dairy type to production, a class of cows should be provided for a culling contest.

2. "A judging contest should be arranged for in which only farmers shall be eligible. Through county elimination contests, teams of three shall be chosen from each county, and no county shall be represented by more than one team."

This will mean a new day in Badger live stock circles.

3. "A sale of cow testing association cows should be held with two groups; one group representing good heifers with dams of known production and another with good type cows whose production records are known."

4. Not satisfied with these big bites, some recommend that "dairy breed days be held in preference to county days". Others came back like this: "In addition to dairy breed days it is recommended that special days such as cheese day, butter day, milk day, and boys' and girls' day be held, and that special programs including pageants, etc., that will dramatize the dairy industry, be a part of these special days."

5. With this they spoke volumes, but—"We also recommend an exhibit and parade of famous cows and bulls of the various breeds, and a special and carefully selected exhibit to point out the value of pure-bred sires, cow testing association cows, and Advanced Registry sires and cows."

6. Still others gave vent to their pent-up Badger enthusiasm in an entirely different vein: "We recommend that special effort be directed toward the proper advertising of the food value of milk and as specific suggestions recommend:

A. Community and county health contests of

1. Babies by public health organizations.

2. Boys by Boy Scout and similar organizations.

3. Girls by commercial and newspaper contests.

4. That local contests culminate at the National Dairy Show in final contest.

B. Portrayal of experimental evidence showing food value of milk.

C. Newspaper and other forms of advertising correlated with the general advertising of the Show."—Wisconsin's Milky Way.

Norman's Missaukee Red Rose

HOARD DAIRYMAN:—On the Mountrose Farm, Ohio, is a man who not only follows the idea out, "'Always speak to a cow as you would to a lady," but goes away beyond it. He treats the cows which he handles as if they were Metropolitan Opera Stars, which are supposed to be the most temperamental female creatures in existence.

Cave-man stuff never did work with cows and never will. The barns where kindness and good care are part of the daily system are where we find big figures on the milk sheet which generally find their way into the A. R. lists of the breed associations.

The man we refer to is Charles H. Knight, and a cow he has cajoled a world's record out of is the Guernsey, Norman's Missaukee Red Rose 89724, who has made a semi-official record of 17,527.2 lbs. milk, 900.7 lbs. fat in class C. This is her second large record, as she made 15,122.3 lbs. milk and 760.72 lbs. fat in Class GG which put her at the head of the Honor Roll.

It is well within the bounds of possibility that she can become the top cow of the Guernsey breed. Red Rose is well named, as she is a beautiful dark red fawn color, with a hide like silk—pliable, soft, and glossy. She's a large cow, but of great quality and wonderful finish—we'd back her for a blue ribbon in a show ring any day.

Her tastes are as decided as they are varied. She loves "Charley" Knight and apples and cocoanut meal, and she sure does hate a "vet". We were in her stall admiring her and listening to her proud owner tell about her, when she began to get restless and toss her head and roll her eyes and show signs of something wrong. We heard footsteps in the other end of the barn and Mr. Knight said "I'll bet that's the Doc, and she knows he's coming towards her". Sure enough, it was the veterinarian



NORMAN'S MISSAUKEE RED ROSE
Year's record: 17,527.20 lbs. milk, 900.70 lbs. fat in Class C.
OWNED BY CHAS. H. KNIGHT, OHIO

coming to do his regular stunt of keeping the herd fit. While Rose may know that his intentions are all right, she certainly doesn't like his execution and even though Mr. Knight put his arm around her and assured her that it was "all right and he wouldn't let her get hurt", she didn't feel quite her placid and dignified self until the doctor had departed.

Mr. Knight says, "Rose and I are going after world's record for Guernsey breed all ages next trip." Taking into consideration everything we know about the man and the cow, and noting that co-operative "Rose and I", we think Countess Prue's crown is going to begin to slip right soon.

Michigan. GEORGE LESLIE.

Michigan College Announces 7th Annual Farmers' Day

On Friday, August 1, the Michigan Agricultural College, at East Lansing, will act as host to thousands of Michigan farmers, their wives and children, and others who are interested in agricultural progress. The day will be in the nature of a big family picnic. The beautiful 105-acre campus furnishes excellent facilities for such an occasion.

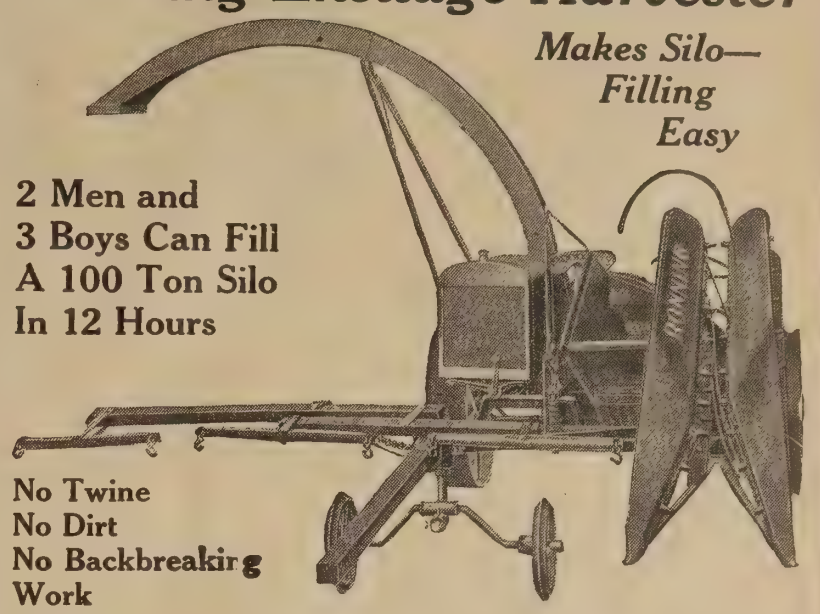
One of the features of the day will be a hay making demonstration on a twenty-five acre field of alfalfa which will show in operation the best and cheapest methods of making hay with modern hay making machinery. This feature will also include an Old Timers' scythe contest which is open to the pioneer farmers of Michigan who used this method in their younger days.

Michigan. E. B. HILL.

Co-operation is not a mystic formula that works without direction or labor. On the contrary, co-operation, to be successful, must be composed of one-tenth system and nine-tenths hard work and sacrifice. And very often one-tenth of the members do nine-tenths of the work.—Citrus Leaves. (California).

Ronning Ensilage Harvester

Makes Silo—Filling Easy



2 Men and 3 Boys Can Fill A 100 Ton Silo In 12 Hours

No Twine
No Dirt
No Backbreaking Work

In One Operation—Without Manual Labor it Harvests Your Corn—Cuts it into Silage—and Loads it into the Wagon Ready for the Silo.

Pays For Itself In Two Years

Picks up any kind of corn—tall—short—thick—thin—drilled—down—or tangled. Even corn mixed with soy beans and vines are easily handled with the Ronning, and it leaves a clean field.

MORGAN HARVESTER CO., Inc.
617 Washington Avenue S., Minneapolis, Minn.

SALE ANNOUNCEMENTS

July 29—Holsteins. Flint Hill Farm, Elizabeth, Jo Daviess Co., Illinois.
July 30—Guernseys. Dispersal, George P. Zouck, Elkton, Md. Louis McL. Merryman, Sparks, Md., Sale Manager.
Sept. 10—Holstein Dispersal Sale. J. C. Kostman, Bruce, Wis. W. H. Krause, Sale Mgr., Thorp, Wis.
Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades. Dassel, Minn. A. B. Rayburn Mgr.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.

POULTRY On The DAIRY FARM

J. B. HAYES



Culling for Profit

Selection for egg production with the sale of the poorer producers has become a year round practice in the hands of flock owners that have had some experience. Even now too many people believe that this work can only be done during the summer months. The months of July, August, September, and October are the most propitious, for the work shows to best advantage during that time. If one obtains the needed experience during that time the idea should be expanded into a regular practice instead of a seasonal house cleaning.

Late spring culling is practiced to a great extent. One party sold ninety birds from a flock of 290 with a decrease in production the following day of only five eggs. The hens were sold at twenty cents per pound and the excess males that were not to be held for breeders the following year for twelve cents per pound. It was needless to state that this man had accomplished the ideal of obtaining a greater production per unit and had materially decreased the feed consumption for the flock as a unit. In that combination lies the hope for more efficient marketing.

When one culls during the summer season it should be possible, in most flocks, to remove at least one-third without decreasing the production. In many cases it has been possible to cull out that many and increase the production of the remainder above what the entire flock had been able to reach. At any time the average production per hen can be increased. In one instance with a total production of 1906 eggs the average per hen was 15.88 but after culling, although the total dropped to 1,493 eggs, the average increased to 16.59 eggs. This is an average example in a well managed flock and not the extreme that could be given.

Ability to produce is determined by ability to properly digest and assimilate feed efficiently. This feature is indicated by proper body conformation. An ideal is a long, wide, deep body that indicates maximum capacity. As the fowl is viewed while standing, one's eye can detect the faults such as shallow body, deficient depth, or lack of vigor. When handling, the spread across the back as indicated by the distance between the thumb and fingers with a flat appearance, tells part of the story. Width across the hips is not only desired but that width should be carried back through the bones at the side and rear of the fowl. This is called "slab sided" and is found in heavy producers while a lower producer will be round bodied.

Extreme width is often found in a "sloper" or, in other words, will pinch in at the rear. This is objectionable as it limits space in the abdominal section where width is desired. A great depth from the back to the keel bone is desired. Males or females that have extremely short keels or slope up abruptly in the rear emphasize the same condition from another direction.

Other more simplified points may be used in detecting the loafers. In the past points have been emphasized that should not have been recognized or, at least, not used in the way that was advanced. Trap-nesting has been the foundation on which culling is based and resulting physical indications or changes due to production, have been tried and finally accepted as guides. One must remember that the more points considered and the closer they check the surer the work will be. Most failures in culling result from taking just one factor and using that to the complete exclusion of all the others.

Starting with the head one has a very definite index of production possibility in either sex. To the casual observer all birds look alike but there is a vast difference between what is wanted and what often happens.

In the vigorous, high production birds one will find a head that is relatively short, deep but clean cut, and free from wrinkles or coarseness. The eyes appear to be full, round, and stand out prominently. One should be able to see the eyes on either side of the head when looking over the back of the head. A prominent, full, "shoe button" eye is desired.

In the category of undesirables is the large, coarse head and wrinkled face. One may justly claim that the puffy appearance may be due to age and it is true. Since the first year of production under average conditions means the highest yield, older hens should be culled out as poorer producers and this wrinkled appearance, whether due to age or inherited low fecundity, indicates the condition. Generally associated with this character one will find that the eye is sunken, the comb rather coarse and masculine, the wattles large and wrinkled while the head seems to be a brilliant color. The color indicates health and not production, for many of these birds might be easily mistaken for males.

At the opposite extreme of the ladder is the hen that has received all the publicity but is only seen in a few instances. She is the "crow or shake" head which means low vigor, vitality, and production. Publicity has made this hen and people look for that type while they overlook the worse offender, the coarse head.

A real extreme type has a long, slim head that is lacking in depth, the eye is sunken, the comb and wattles never reach normal maturity, and she looks weak, unthrifty, inactive, and would be culled on general appearance. Do not, however, confuse her with a neat, vigorous fowl.

A little study of the head types will quickly acquaint one with what is desired so that the others may be discarded. Time and observation are required for, in the past, we have always considered the hen as part of the flock rather than an individual that is required to do her share in making a profit.

A Poultry Tour

The third annual poultry tour of Northwestern Wisconsin county agents and farmers to Barnum, Minn., was made June 24.

Only five poultry farms were visited, the largest one being the Hugo Anderson farm where 4,000 hens are regularly kept and a 30,000-egg incubator is operated on this 23-acre place. Mr. Hansen, who organized this poultry community in co-operation with the University of Minnesota several years ago, is still owner of the creamery and handles all of the production of poultry and dairy products from nearly 400 farmers in this community. Not only do people cooperate in standard breeds but in buying the right kind of feeds and in providing the right kind of equipment and raising the right kind of chickens.

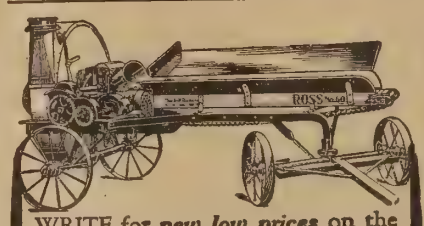
Marked progress in the poultry development of Northwestern Wisconsin comes as a result of these poultry tours. Farmers who visited the Barnum poultry tour only two years ago have tripled their flock and have up-to-date poultry equipment after only two years' time, which shows that "seeing is believing".—GEORGE BRIGGS.

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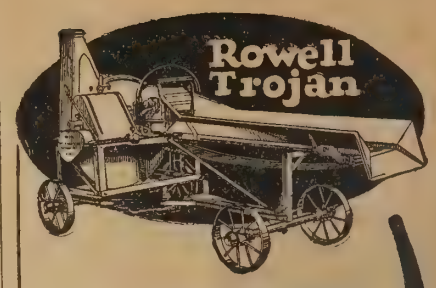
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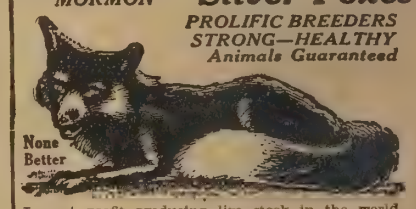
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VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

The Lame, Stiff Cow

It is quite common for pregnant cows to become stiff, sore, lame, or inclined to paralysis. In some instances they have great difficulty in rising when down and some old cows become completely paralyzed after showing such premonitory symptoms for some time. In all cases of this sort we advise, as the first step, the application of the tuberculin test, if that has not been done. The reason for this is that tuberculosis quite often affects the bones of the spinal column, in the region of the loins, or may attack the joints, especially the stifle joint, at the flank, or the bones about the fetlocks. When that is the case treatment, of course, is not worth while, for the disease is incurable and contagious and also makes the milk dangerous for use by man or animals. In many cases of the sort described tuberculosis has proved present and the animal had to be destroyed. Testing of the entire herd then is in order.

An unsuspected cause of stiffness and lameness in dairy cows, especially in pregnant ones, is deficiency of lime in the bones and of phosphorus in the blood. In recent years it has been pointed out by nutrition chemists that when a cow does not receive sufficient lime and phosphorus in her ration she has to obtain it somewhere if she is to go on yielding milk and developing a strong fetus in her womb. There is only one source possible to her when the ration is deficient in the needed elements and that is her own blood, tissues, and bones. It is quite possible for her to so severely draw upon her bones and possibly her nerves for lime that they weaken and she becomes lame or even goes down paralyzed in the worst cases of the sort. Confinement in a stable, lack of exercise, and especially lack of opportunity to bask in direct sunshine are contributory causes. Evidently prevention is all-important and it comes from supplying the cow with a complete ration and especially an abundance of alfalfa to supply lime and needed vitamins, one of which stimulates lime assimilation. The cow should also be allowed to exercise outdoors every fine day and in the stable should occupy a roomy pen or box stall.

There would be far fewer stiff, lame, sore cows were the animals moved into clean, roomy, sanitary pens well before calving time. We think it likely that, in time, stanchioning of cows will give place to allowing them their freedom in a well bedded, covered court or barn during the day time and night when they are not on pasture and stanchioning only at milking time, the milking to be done by machine. As calving time approaches the cow will then be separated from her mates in the covered court or "rotunda" of the cow stable, and be allowed a separate, roomy, bedded pen specially prepared by cleansing, disinfection, and whitewashing, including the floor. Under those conditions and when the cows are tested periodically to detect and eliminate those affected with tuberculosis or with Johne's disease and are supplied with a ration that fully supplies all of the needs of the body and obviates the necessity of self-robbing of mineral matters, stiff, lame, weak, or paralyzed cows will rarely trouble their owners and prove profitless in the herd.

Preventing Sucking

Could you tell me how to prevent yearling calves on pasture from sucking each other? Several of them are very persistent in this habit although they were stanchioned and fed grain after their milk last winter in the approved manner. Is there any offensive preparation we could smear on the teats of those sucked to keep the others away?

Norma, Nebr. J. T. T.

It is customary to put spiked halters on the sucking calves but there is some danger from wounds where that is done. Tincture of myrrh and aloes, or a mixture of powdered Barbadoes aloes and lard or oil is fairly effective in preventing sucking, but must frequently be applied. It would be better to separate the sucking calves from the others.

Hard Milking Cow

I would like to know if there is a remedy for a hard milking cow. I have a good one but hard milker.

Ogden, Utah. W. S. R.

We take it that all four teats are hard to milk, the openings of the ducts being small. If that is the case teat plugs may be inserted between milkings, provided they are sterilized by boiling and smeared with carbolized vaseline each time before insertion in the teats. If that does not suffice a veterinarian should be employed to use a dilator of the glove-stretcher pattern or he may need to use a teat slitter (bistoury). In some cases letting a calf nurse at these times makes milking easier.

Calf Scours Cured

HOARD'S DAIRYMAN:—A gentleman from Bonduel, Wis., had an article on calf scours in the May 9th issue of Hoard's Dairyman, and wishes a reply from a reader who has tried it and succeeded.

Ten days ago I had a heifer calf that had the scours so bad it could hardly stand up. We tried various treatments but with no effects. On May 9th I ran across the article by E. K. of Bonduel in Hoard's Dairyman and made up my mind to try it. After the third dose of this mixture the calf was completely cured and is now drinking milk and is in fine condition.

It certainly is a simple remedy as the ground ginger and baking soda are always on hand in the kitchen, and the powdered or prepared chalk can be had at most any drug store.

This remedy for calf scours should be had by all dairy farmers as I know it will prove successful to them. I wish to thank T. K. and the Hoard's Dairyman very much for that article.

Menomonie, Mich. A. W. W.

Abortion in Swine

Of late years there have come increasing reports of contagious abortion in sows and it seems to persist for three to five years in the same herd. Sows generally contract the disease from each other rather than from cows or other species of animals.

No drug or medicine has yet been found that will cure the disease, but the Wisconsin Experiment Station suggests in Cir. 169 the following method of managing infected herds:

1. Remove aborting sows at once from contact with other sows and gilts.

2. Collect and burn aborted pigs, afterbirths, and all contaminated feed and litter.

3. Find out whether the abortions were caused by abortion germs by having blood samples tested to detect evidence of the disease.

4. Consider the herd infected if any of the blood samples are found to react to the test for abortion.

5. Divide the non-reacting sows into as small groups as possible.

6. Disinfect the hog houses by thoroughly saturating the floor, walls, and troughs with a coal-tar disinfectant prepared and applied according to the directions of the manufacturer of the product.

7. Sell for slaughter grade sows which abort as soon as their condition permits as such animals will scarcely pay for the trouble of treatment.

8. Postpone breeding sows that have aborted until they have passed at least two heat periods.

9. Keep a special boar for the aborting and infected sows. This, of course, is impractical except in large herds.

10. Provide a clean boar for all sows that show no evidence of infection.

11. Ask your veterinarian to secure vaccine from the College of Agriculture to vaccinate all open sows and gilts that have not aborted in order to prevent them from contracting the disease.

Remedy for Scours

HOARD'S DAIRYMAN:—In recent issues I noticed inquiries for a remedy for scours in calves.

I have been successful in using about a teaspoonful of "B-K" in milk fresh from the cow, feeding it from a bottle.

Just last week I had one that had the scours and refused to stand or drink. I gave him three doses and he came along fine.

Campbellsport, Wis. M. E. S.



Pat. 7-2-07 & 9-10-18
ANTI-COW KICKER
Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.
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Breed Brown Swiss Cattle

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.
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Kinnelon Bred

Bull calf of exceptional quality and conformation, born in March and sired by Illda's College Boy. His daughters with first calf are doing better than 12,000 lbs. a year. His dam is Pimpernelle who has a three-year-old record of 15,160 lbs. milk and 600.69 of fat. Since freshening she has hit 65 lbs. with a 4.7 test. Let us send you full particulars.
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Keep a record of each cow's yield, in milk and butterfat. Which cows are profitable?
HANSON DAIRY SCALE
Used in connection with Babcock Test. Readings by 1-10th of lb. Loose pointer offsets weight of pail so tare does not have to be deducted. Price, 30-lb., $4; 60-lb., $5. At dealers, or from us on receipt of price.
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FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.
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Offering bred or open heifers. Heifer calves. Bull calves. Herd Federal Accredited. Write for pedigrees and prices.
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REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.
My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.
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Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
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POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

Serviceable Bulls
From R. M. Dams
We have 2 or 3 very good young bulls from dams with records up to 500 lbs. butterfat made on 2 milkings a day. They are sired by a son of Golden Fern's Noble and a half brother to Fern's Wexford Noble 1922-1923 "National" grand champion.
Have also a few heifer calves for sale.
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SEVERAL FINE CALVES
Both sexes, Raleigh breeding. All sired by Wisconsin's second silver medal bull who has one daughter with 718 lbs. fat as a 2-year-old.
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2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
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Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
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Raleigh's Torono's Meme 544207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood
We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.
HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

Iowa Six Months' Dairy Course

The six months' course in dairying begins this year September 22 and closes March 20, 1925. This course is divided into two quarters, the first quarter closing December 19th and the second quarter beginning January 5th.

This course is intended for men who are interested in commercial dairying. Butter, ice cream, and cheese factories and market milk plants all draw upon the six months' course for men.

A student desiring to enter the six months' course must be at least seventeen years of age and must have satisfactorily completed the eighth grade of the public schools or its equivalent. Although it is advisable that he have some practical experience before enrolling, this is not a requirement. Students with some experience may be recommended for positions by the department after one three months' term, but those without previous practical work are required to complete satisfactorily the six months' course before receiving the recommendation of the department.

For further information address Dairy Department, Iowa State College, Ames, Iowa.—M. MORTENSEN.

Safety in a Nutshell

A fifteen year-old girl of Detroit has written these slogans for automobilists:

"Drive right and more pedestrians will be left."

"Watch your 'step on it'."

"Taking the other fellow's dust is better than 'to dust returneth'."

"Six feet have awaited many a driver who wouldn't give an inch."—Boston Transcript.

Ohio Ayrshire Record

Belle Moonshine's Choice, owned by E. R. McConnell of Ohio, becomes the Roll of Honor senior three-year-old Ohio Ayrshire champion on her 300-day production of 10,786 lbs. of 4.17% milk, 450.07 lbs. fat; carrying a living calf 213 days of this period. —Ayrshire Breeders' Association.

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Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA

DUROCS PUREBRED SPRING PIGS—Healthy, vigorous stock, both sexes. Shipped on approval.
WALTER SCHEDLER, West Coxsackie, N. Y.

GUERNSEYS

Famous Herd Sire For Sale

BEAUTY EAGLE'S BONNY BOY
No. 42893

Dam's A. R. record: milk 16,144 lbs.; fat 846.31 lbs. (Class A). This is a proven sire. His daughters are improvement both in type and production over their dams and he is a fine specimen himself. For sale at a very reasonable price.

ALSO HAVE FOR SALE two exceptionally nice BULL CALVES sired by the great May Rose bull, Warrior of Destiny. One at $50 and one at $100.

GREAT BARGAINS

W. P. CRAIG, 616 Bessemer Bldg., Pittsburgh, Pa.

Nine Guernsey Bulls

Ready for Service — For Sale
Discounts to Bull Clubs

These bulls are bred to sire size, type and production. Write for price, pedigree and description. If you will write us amount you can afford to pay for a bull, we will send you description on the kind you want.

EMMADINE FARM
Hopewell Junction, N. Y.
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BULLS 6 to 10 Mos. Old

From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

Banner Guernsey Farm

OFFERS HAPPY OF BANNER
(Born Feb. 6, 1924)

Also some high grade heifers. "Happy's" dam has 487 lbs. fat class AA, and sire's dam has 676 lbs. fat class AA. Fawn with star, white switch, black nose. Price $75.00 F. O. B. Brookfield. For photos and particulars write

A. C. KLEINHANS Brookfield, Wis.

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

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WE OFFER FOR SALE

SARNIA BOB, 85659, dropped Sept. 26, 1922. Sire, Pencoyd Crackerjack, 39627, by Langwater Pencoyd, with 16 A. R. daughters with records up to 810 lbs. fat and out of Quaker Maid of Pencoyd 759.7 lbs. A. Pencoyd Crackerjack has two daughters finished 567.8 FF. and 458 G. The latter on retest will be a class leader in BB. Dam, Infanta of Sarnia, 87746, Record 371.8 GG. A daughter of May King's Vrangue of Ingleside. This bull is large for his age, a good individual, about a third white. PRICE $200.00.

CHARLES L. HILL & SON, Rosendale, Wis.

821.33 B. F.—Yearling May Rose Bull

Five nearest tested dams average 821.33 lbs. butterfat. Show bull. Fine color. Priced low. Send for sale list. Accredited herd.

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JEFFERSON COUNTY GUERNSEYS

combine type and production. We offer high grade and pure-bred cows, heifers and calves of all ages from clean, healthy herds free from T. B. Buy that bull needed for fall service now.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.,
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Fond du Lac County Guernseys

Both pure-breds and grades for sale. We have some especially good registered heifers and top notch bulls to offer at the present time. Write today if you want clean cattle from the herds of reliable breeders.

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FOR SALE, bulls of serviceable age and younger, bred for production and type. Cows, 2 to 7 years old, fresh or to freshen soon. Also two heifer calves. Write

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CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

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Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss.. are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO

For prices and information, write

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FOUR PINE FARM has always given producton first importance in their breeding operations. Yet we have not lost sight of type.

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CHERUB'S PEARL ROYAL OF SHOREWOOD 58824

LONE PINE GUERNSEYS MIKANA, Barron Co., WIS.

LONE PINE ROYAL REGENT 88513, born April 4, 1923, is ready for immediate service. He is a growthy young fellow with plenty of length and depth. He has a strong, straight back and is medium fawn in color. SIRE, CHERUB'S PEARL ROYAL OF SHOREWOOD 58824, grand champion 1921 National Dairy Show and son of Ladysmith's Cherub, 3 times grand champion at National and sire of 11 A. R. daughters. DAM, LONE PINE DELIGHT 92446 A. R., 589 lbs. fat as Jr. 4-year-old. As 4-year-old placed 4th at Wisconsin, 2nd at Michigan, 5th Eastern States, and 5th National Dairy Show—all during year 1923. This calf is priced to sell. Let us hear from you.

Owners; H. L. & F. D. STOUT (*Fed. Accredited Herd*) 501 McCormick Bldg., Chicago.

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Our recent BULL SALE was very satisfactory. We shipped animals into Iowa, Illinois, Ohio, Kansas, Colorado, Missouri, and Mississippi, during past 7 weeks. True enough, they were sold at about half their value, but these animals will give a good account of themselves, and we will get our reward later.

We now offer to some discriminating breeder or farmer the pride of our herd, Nonpareil of El Jane, 18 months old. He is out of one of our A. R. dams who made 504 lbs. fat in class E—and is sired by Dairymaid's Nonpareil of Iowa, who sired a class A cow that recently made 998 lbs. fat. Would you care to own a half brother to a 998-lb. cow? Beautiful animal, straight, and can be bought RIGHT. Still have several young bull calves for sale. Federal Accredited Herd.

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WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

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Pedigrees Furnished

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BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

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Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

Your Boar

HOARD'S DAIRYMAN:—The time to breed for fall pigs will soon be here. Is your boar in the best condition possible? Is he a boar you can be proud of? Most all dairymen know the value of a pure-bred bull, but how many carry it on to the boar? The boar must be a good individual, be a good representative of the breed, and have a good pedigree. He should be strong in points desirable and especially so in points which are not usually found in animals of the breed. The extra "big type" is not in such favor at present. The bone is important but it can be overdone. In the Ton Litter Contest in Ohio, the sire of all litters weighing a ton were pure-breds.

It is important that the boar should be registered. This is the only way of knowing that the boar is of good stock and not a scrub. This can be carried to an extreme; a good individual is better than a registered scrub. There has in the past been complaint of crookedness on the part of breeders in recording pedigrees, but this is all practically eliminated. Every one is fighting the crooked breeder.

Is your boar in a good lot, where he can get plenty of exercise, or in a stuffy, dark, and dirty hole in some out of the way place? A good place for the boar is in the bull lot, they seem to quiet each other some. His bed should be clean, warm, and well ventilated. It should be located so that it will be dry and where the sun can strike it for several hours a day. The movable hog house is very convenient for the boar. Your state experiment station probably has several bulletins on the construction of these houses. The boar should never be allowed to run with the herd. No accurate records can be kept of breeding when this method is practiced and the boar will be harder to handle. In the corn belt there is a great tendency to feed too much corn. This makes a poor breeder of any boar. The ration should be narrowed, meaning that it should consist of a large amount of feed rich in protein. Skimmilk is fine feed and is usually cheap. Tankage and oil meal are both good feeds also. When possible the boar should be allowed to run to alfalfa, clover, or soy bean hay. These are rich in protein. During the breeding season the ration should be narrower than ever. A good mineral mixture is also almost essential for the whole herd.

When the date comes for breeding, do not just turn the boar in with the sows; take the sow to him, one at a time and no more than two or three a day. When he has served them take them away.

Missouri. FLOYD A. POWELL.

Rhode Island Champions

Rhode Island has two new champion butter producing Holstein cows, according to the Advanced Registry Department of The Holstein-Friesian Association of America.

Amy Rag Apple Pontiac is now the state's leading cow for one year's production as a junior four-year-old with a record of 23,461.7 pounds milk and 786.37 pounds butterfat—equal to 982.9 pounds butter. She is owned by J. E. Singleton.

For one year's production as a junior two-year-old Mabel Model Konigen, of the H. B. Ayers herd, holds the state's highest record with 18,686.8 pounds milk and 566.96 pounds butterfat, equivalent to 708.7 pounds butter.—Holstein-Friesian Ass'n of America.



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Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

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(In Waukesha County)
F. J. Southcott, Manager, Dousman, Wis.
Clean herd under State and Federal Supervision

REGISTERED HOLSTEINS
GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
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OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

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ALL AGES—ANY NUMBER

We can supply good ones at reasonable prices whether you want 1 or a carload.
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J. C. BOLGER, WATERLOO, WISCONSIN.

HERD SIRE FOR SALE
Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
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F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

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Why buy grades when pure-breds sell for very little more money? Grade herds have been thoroughly picked over. You'll find more "tops" in pure-bred herds today than ever before, and at less money. Write us.
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Bred, owned, and developed by Traverse City State Hospital, Traverse City, Michigan.
One of the Great Cows of the Breed

Her latest record, 38.5 lbs. butter in seven days, makes her fourth record above 35 lbs. and her fifth above 30 lbs. The five records average 35.96 lbs. and two were made in heifer form.

She has five records for 305 days ranging from 914.18 to 1080.40 lbs. butter and from 19,031.2 to 22,893.7 lbs. milk. These records average 984.56 lbs. butter and 20,633.7 lbs. milk. As a five-year-old she made 1220.21 lbs. butter and 24,850.6 lbs. milk in 365 days, and her senior two-year-old record for 305 days butter production still stands as the world's record.

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Department B Lansing, Michigan

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.
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E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

200 Carloads of Holsteins

is our motto for this year. We can supply you with as many as you want. Carload lots our specialty. Fine selection, courteous service, and reasonable prices. Less than one-half of one per cent T. B. Home of the World's Greatest Bull Association.
LIVINGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
Burr J. Hoover, Secretary Howell, Michigan

Iowana Ona King Pietertje Born July 25, 1923

A son of Meadow Holm Ona Hartog King, and from a daughter of Sir Johanna Fayne. His dam has a good two-year-old record and is dam of a 950-pound junior three-year-old.
Bull is three-fourth white and a fine individual.
Send for pedigree and particulars.
IOWANA FARMS (*Herd under Fed. Supervision*) Davenport, Iowa


Sadie Gerben of Home Farm

A Producing and Transmitting Dam

This wonderful cow is one of the greatest daughters of Sir Sadie Cornucopia; she is completing a record of about 1000 lbs. butter; her daughter by K. K. S. V. 24th has 850 lbs. butter as a jr. 3-yr.-old. Her son by the same bull is the sire of some splendid bull calves we offer from large record dams. Pedigrees and photos on request.
HOME FARM HERD (*Accredited — Estab. 1881*) W. B. Barney & Sons, Chapin, Iowa

Bargains in Registered HOLSTEIN BULLS--- all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.
Hargrove & Arnold, Norwalk, Ia.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—King Piebe Ormsby Mercedes, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and King Pietertje Mercedes Ormsby, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.
Herd tuberculin tested. Write for information or visit herd.
P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

Carleton Walker Segis Ormsby *For Sale*

Born March 28, 1923, good individual, mostly white. Dam a 31.5-lb. three-year-old, just finishing good 305 day record. She has 20.86 butter, 7 da. 600 butter, 15000 milk 305 day at 2 years. She is a daughter of "KING SEGIS PONTIAC FAYNE STAR," the best proven son of "Count". Sire, Sir Walker Segis Homestead, a "Piebe" son from the greatest daughter of "Count", a former world record heifer, who has 3 year records averaging 1000 lbs., and is one of four 1000-lb. daughters of her dam. Send for pedigree and photo.
FEDERAL ACCREDITED.
CARLETON COLLEGE FARMS, Northfield, Minnesota


Sir Walker Segis Homestead



Dean Homestead Ormsby Born Dec. 31, 1923

Sire. DEAN OF THE ORMSBYS, a son of Sir P. O. M. 37th, out of Colantha Pietertje Lass, a 1265-lb. daughter of Sir Pietertje Ormsby Mercedes. Dam. LASHBROOK FAY HOMESTEAD, a beautiful two-year-old daughter of Sir Walker Segis Homestead, a show heifer now on yearly test.
THIS IS A REAL BULL CALF, ONE YOU WILL LIKE TO OWN
PRICE ONLY $250. Send for pedigree and photo.
A. J. LASHBROOK, Northfield, Minn.

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1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.
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We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service. GRAHAMHOLM FARM,
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A YEARLY RECORD HERD

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Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.
O. A. JENS, Mgr. DUNDEE, ILL.

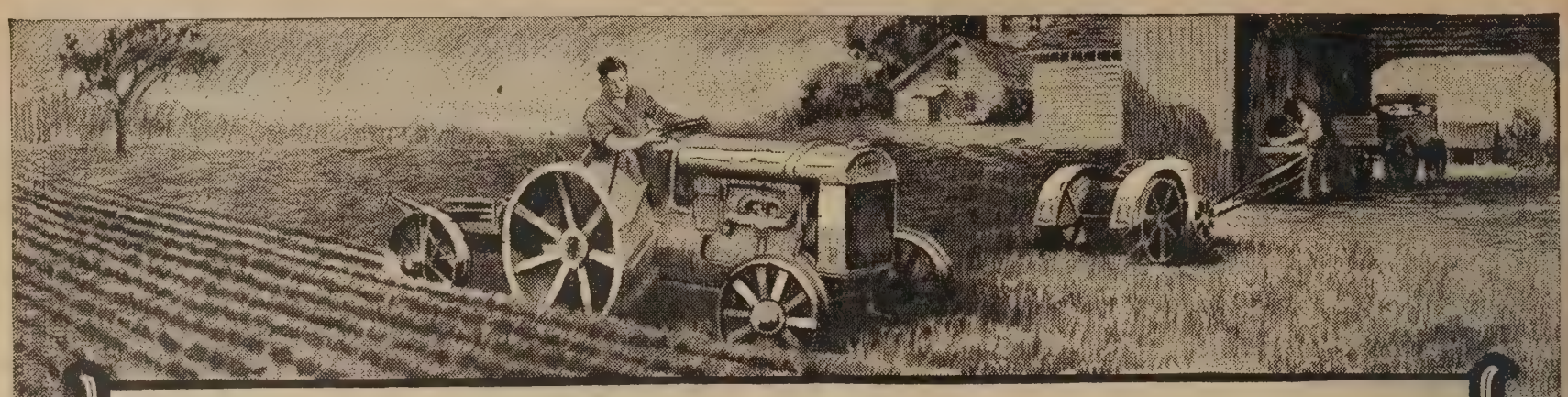
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Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
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HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.

36-lb. Breeding

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ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.



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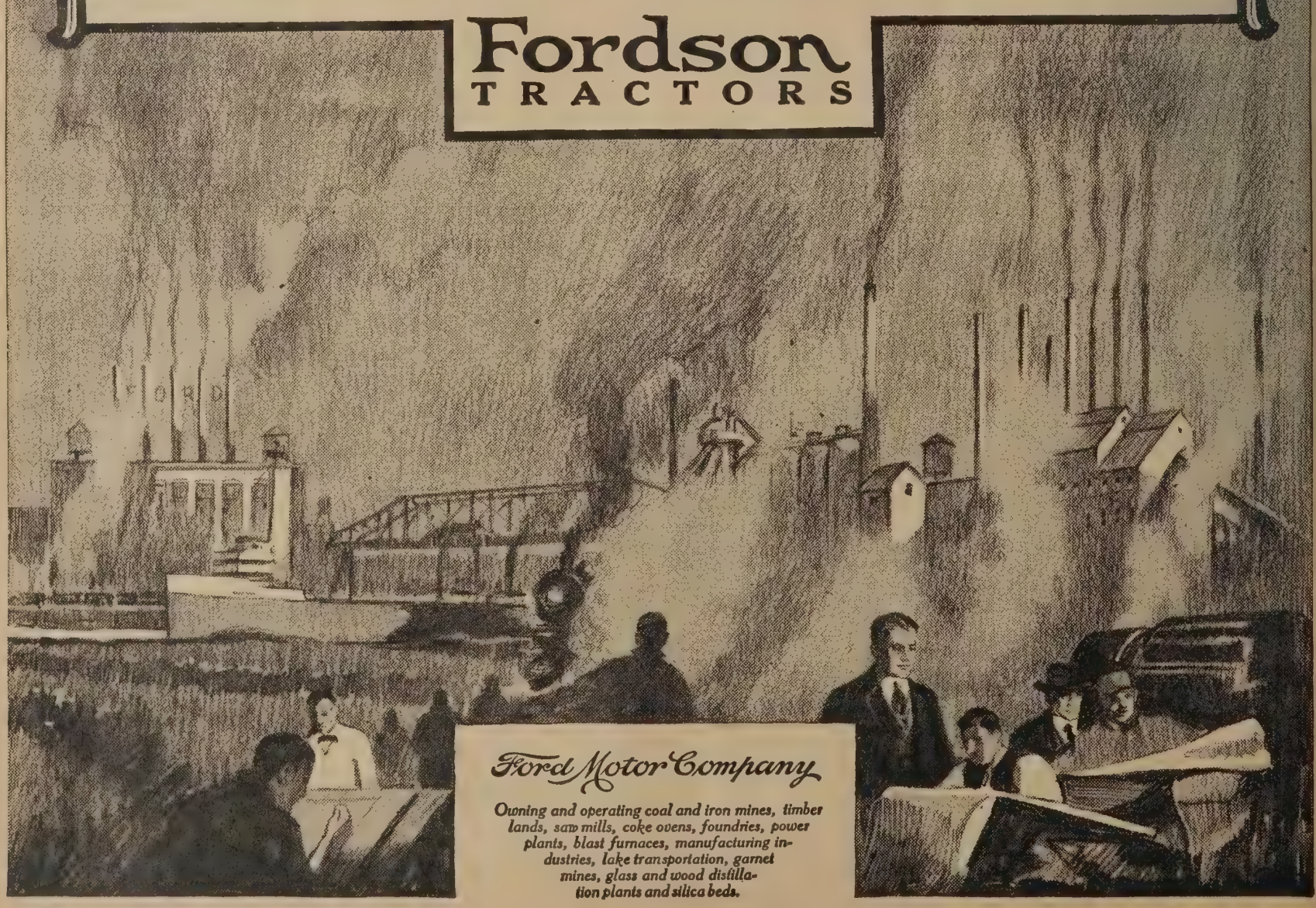
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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 3 Fort Atkinson, Wisconsin August 1, 1924

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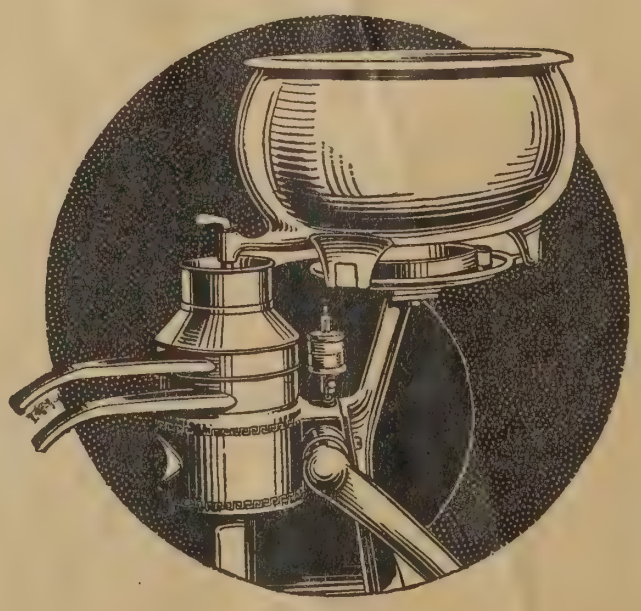
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HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., AUGUST 1, 1924 Number 3

NEW YORK EXPERIMENT STATION JERSEYS

How Founded and Developed

A. C. DAHLBERG, NEW YORK

NEARLY all old herds of cattle have an interesting history in which may be found many lessons of value. The history of the herd of pure-bred Jerseys owned by the New York Agricultural Experiment Station at Geneva has been carefully preserved and it contains many illustrations of valuable lessons in economical dairying. So far as the author has ascertained, the New York State Experiment Station is the only one in America that keeps no other cattle than Jerseys. The herd is also rather segregated from other cattle and the customary exchange of cattle so common in many herds has not been practiced. Furthermore, the herd is free from students' work. It compares quite favorably, therefore, with conditions that might exist upon the average farm if the average farmer desired to create them.

The author's predecessor, George A. Smith, established the herd and kept it under his careful supervision during the entire period covered in these articles with the exception of the last two years. It was he who began the practice in 1900 or before of weighing each milking and keeping all other records so essential to an understanding of the past. The author's part is one of interpretation and presentation of this material.

The Beginning of the Herd

The first annual report of this Experiment Station states that four Jersey cows arrived on November 30, 1882, after a two days' journey. They were in a "harassed and fatigued condition". In later years, Holsteins, Devons, Alderness, and Shorthorn cattle were obtained to use in an extensive breed test. When the comparison of the breeds of cattle for dairy purposes at this Experiment Station was ended in the 90's, it became evident to those in charge of the work that certain advantages were to be gained by eliminating all breeds but one. "Because of the expense of maintaining several breeds and because the type of experimental work contemplated would be best served by a fairly uniform herd, a Jersey sire was placed at the head of the herd and some Jersey cows added." These Jersey cows, all grades but two, which were added to the herd, were purchased in 1898 and 1899, and they constituted the major portion of the herd. This sire was purchased in 1901 and there were but two pure-bred Jersey females in the herd at that time.

There are but two methods of obtaining a herd of pure-bred cattle; namely, buy them or raise them. The expense of purchasing enough females of good breeding to fill a barn built for 26 milch cows is rather great and, furthermore, it may not be economical or within the means of the average farmer or agricultural experiment station to do so. For this reason the herd was developed by the purchase of bull calves to produce heifers from the two registered Jersey cows and to increase the production of the daughters of the cows of miscellaneous breeding. Past policies in managing the herd have always been decided upon the basis of what the good dairy farmer should do for the economical production of milk and butterfat.

The Foundation Females

The two foundation cows were purchased as bred heifers in 1900 from a New York Jersey breeder at a cost of $250. They were considered a good bargain at that time and cattle were probably cheaper than at the present time. They were large, rugged animals that developed into good producers. Their pictures illustrated their type fairly well and it is evident from the photographs that they were not show animals. Millie Darling has an average of about 375 lbs. fat for each year of her lifetime and Dotshome Carey produced about 50 lbs. fat less per year.

All females in the herd at the present time, with the exception of one heifer, are descendants of these two cows. This became true in 1921 when the last two grades were sold. Twenty years to change the herd from 24 cows of irregular breeding and 2 registered females to 26 pure-bred cows may seem like a long, slow task to many, but it must not be forgotten that the use of pure-bred sires was profitable in the production of good grade cows as well as for increasing the size of the registered herd. In fact, the economy with which the present pure-bred herd was developed as a result of accepting slow, normal increases in numbers is one of the outstanding demonstrations furnished by the Station herd.

A study of the production records of the descendants of these two foundation cows shows little difference in their producing ability both in respect to quantity and quality of milk. However, there is a noticeable difference in the color of the progeny of these two foundation cows. The descendants of Dotshome Carey have a tendency to be light fawn in color, but most of the progeny of Millie Darling are very dark. For some reason that is not evident to the author, the descendants of Dotshome Carey are far more numerous than those of the other cow in spite of no greater ability in milk production.

It must not be inferred that the breeding ability of the females has not been a very important factor in the improvement of the herd. Certain cows have the ability to transmit good qualities in their offspring and such cows should be used for breeding purposes. This is just as true of cows as it is of bulls. The progeny of Carey of the Station illustrates this point remarkably well. Her best record was made at seven years of age when she produced 449 pounds. She had four daughters by three different bulls that have an average yearly production record of 518 pounds. Her granddaughters, five in number, have an average yearly production of 465 pounds. Her five great granddaughters produced 422 pounds and these records include a 2-year-old and a 3-year-old record. These records are either ten or twelve months in duration. Three of her two-year-old great granddaughters are now making records in excess of 300 pounds fat in ten months. It is self evident from this brief review of the progeny of Carey of the Station that she played no minor role in the development of the station herd.

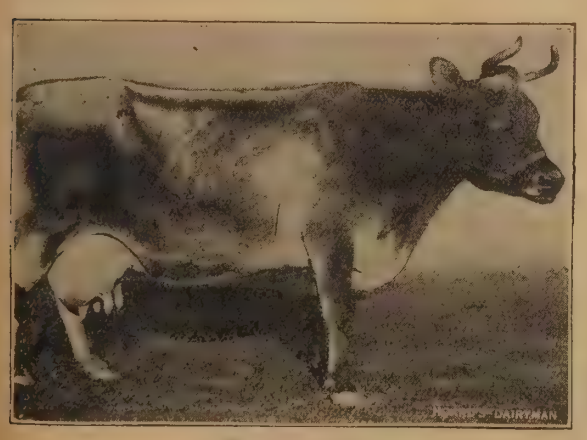
Bulls Developed the Herd

The present herd is a product of the bulls used during the past 20 years rather than of the foundation cows. Of the twenty-two cows milking, ten are great granddaughters and nine are great great granddaughters of the two foundation cows. The other three are granddaughters and they, being past fourteen years of age, will soon be out of the herd. The present herd contains, therefore, approximately 10 per cent of the blood of the foundation cows with the exception of a few females that are slightly line bred to one of the foundation cows. The pedigrees of the majority of the heifer calves now in the barn will not contain the names of these two foundation cows but will be a composite of the pedigrees of the bulls. The importance of the bulls in the development of the herd is thus emphasized.

In recognition of the value of the sire considerable care has been used in his selection. Perhaps first consideration in the selection of a sire has been given to the selection of the breeder from whom he should be bought. Without exception the breeders who have sold bulls to the Experiment Station have been successful in developing their herd of Jerseys. They have been earnestly and honestly trying to breed better cattle and attempting to help others do the same. Their judgment in selecting a bull calf from a cow in their herd has been very helpful in obtaining a desirable bull. Furthermore, they were using carefully selected bulls in their own herds so that the sire of a bull calf need be given little consideration. In every instance the breeder's herd was seen at some time before a bull calf was needed. Personal acquaintance with the breeder and his herd were made possible by purchasing from New York State breeders. If the animals in the herd were the large American type Jersey and good producers, free from tuberculosis, a calf was purchased later by correspondence.

This method of purchasing bull calves when one to three months of age is, of course, open to objection because it fails to consider the type of the mature bull and his ability to sire good producing cows of desirable type. It must not be forgotten, however, that proven sires are very limited in numbers and command a price higher that the average dairyman can pay. The great bulk of pure-bred breeders as well as the av-

(Continued on page 69)



DOTSHOME CAREY

One of the first two pure-bred Jerseys in the Station herd that founded the herd. She produced an average of 325 lbs. fat per year. She was purchased as a bred heifer for $125.



MILLIE DARLING

All cows in the station herd are descendants of Millie Darling and Dotshome Carey. Millie produced an average of 375 lbs. fat per year.

MILK MARKETING IN NEW ENGLAND

ALEXANDER E. CANCE, Massachusetts Agricultural College

No one has sufficient knowledge or experience in the marketing of New England milk to sit down beforehand and work out a method of distributing New England milk and dairy products that will certainly be successful. The best any one can do is to proceed carefully and surely in eliminating wastes in the present marketing system and in building up better means and methods wherever possible.

Probably all practical market men and students of the matter will agree that marketing milk by individuals is not the most efficient method. All will agree that the milk producers should be organized. The success of the organized groups of dairymen, particularly creameries and milk distributing plants in cities, has shown the advantage of the co-operative over the individual plant unless the individual is a large producer or sells to a special market. The question is, what sort of organization should be formed.

As a general proposition it may be said that no organization, however perfect, can raise the price of fluid milk sold on a wholesale market much above the level of the price for the manufactured product. Since the manufactured product has a much wider market and a much wider range of competition, and since milk intended for manufacture may be turned readily into the whole milk market, it is inevitable that the price of whole milk can not differ very widely from the price of milk intended for manufacture.

In the next place, it is probably true that a very simple organization will within a short time effect a change for the better. The situation at the present time is extremely bad. So it was in 1916. A very simple organization by farmers with attention to a few of the major defects in marketing will improve conditions markedly within a short time. Indeed, it is probable that conditions will better themselves somewhat within a very few months.

Any plan for improving conditions should take into consideration the milk plants and creameries and other farmers' organizations that are now in operation. These organizations belong to the farmers. Many of them have gone through the first stages of difficulty and are now operating with considerable success. It would be most unfortunate if any form of organization should be attempted which would reduce the initiative and financial and moral responsibility which these groups of farmers have developed through the years. Probably the best that most of these organizations can offer is efficiency in assembling milk or in manufacturing it. Some of them also are merchandizing their milk or other products to good advantage. These local plants are particularly important because they are efficient producers giving careful attention to the supply of milk and the quality of the product they place on the market. In any plan they should be left free and responsible and should continue in the ownership of their properties.

The history of co-operation throughout the world shows beyond the possibility of a doubt that co-operation proceeds successfully in the majority of instances from community organized enterprises. This grows out of the peculiar nature of a co-operative company, which is a body of men who do their own business. A co-operative creamery is a body of men who supply their own milk, hire their own buttermaker, and manufacture their own product. A proprietary creamery, on the other hand, is probably a corporation owned by men who supply none of the raw material and who are interested in the manufacture of milk only for the profits there may be to those who have supplied the capital. As a consequence of this it is always important that the responsibility for a good product be laid as strongly as possible upon the shoulders of the co-operators. Ordinarily, co-operators in one community, understanding their needs and knowing one another, are able to bear this responsibility and to develop a loyalty to their organization better than co-operators who are scattered over a large territory and owe allegiance only to a distant central authority.

The history of the Dairymen's League in New York has shown that a number of plants which are owned by the central are inefficient. This inefficiency of the local plant must be borne by the entire organization. The responsibility for the inefficiency may be local but the local does not bear it. I do not know whether a plan can be worked out whereby inefficient plants owned by a central authority and managed locally can be made efficient or can be made to pay the penalty of their inefficiency. It is certain that independent plants, either individual or federated into a central group, can be made to bear their own burdens. The responsibility and the friendly rivalry which results from locally owned and operated plants is nearly essential to success in a competitive enterprise.



ROBERT W. ENO AND PENSHURST DAVID WITH WHICH HE WAS AWARDED GRAND CHAMPIONSHIP FOR THE BEST FITTED ENTRY AT THE SECOND ANNUAL STUDENTS' DAIRY CATTLE FITTING CONTEST AT PENNSYLVANIA COLLEGE

Another reason for the strength of federated community enterprises in dealing with a product such as milk, grows out of the fact that its marketing is exceedingly complicated. An organization which attempts to handle the milk and dairy products of a region like New England is likely to find it impossible to obtain a manager sufficiently alert and able to handle the entire process without considerable loss at some point. Under the most favorable conditions, profits are not great. If the management is not very efficient and able, the losses will be great enough to eat up all the advantage which the co-operative gives. The federated cheese factories of Wisconsin very soon learned this. They found that if the co-operative could give them three-fourths or even one-half a cent a pound more than they could receive through private agencies, the results were all they could expect.

Recently the American Farm Bureau Federation employed some of the ablest of our students of co-operation to study milk marketing organizations in the United States and Canada to determine the best methods of milk organization. The report has now been given to the public after a year's study and investigation by a number of experts. In brief, this report emphasized the need of organizing each of the dairy product groups separately; second, the procedure by the formation of community locals, and as the need appears, federating these into larger central groups; third, the affiliation or organization of all the milk commodity groups into one central overhead when conditions seem favorable; fourth, immediately, a sort of conference board which includes the leaders of the buttermaking, cheesemaking, condensery, and milk marketing groups with a view to studying common problems and making competition open and above board.

The state of Wisconsin has for some time been discussing the possibility of such an overhead organization as has been planned for New England. After this report was published delegates from the various dairy groups of farmers came together at Madison to determine whether it would be wiser to form a great central group or to proceed on the plan of federation of local groups. The question was decided almost unanimously in favor of the community group system federated into an overhead at the proper time. It is interesting here that in 1922 the same question arose in Wisconsin and was answered in the same way.

It is worth while at this point to point to the failure of some central organizations organized within a few years. The most notable of these, perhaps, is the failure of the Grain Growers' central organization which endeavored to organize the wheat industry by leasing farmers' elevators already organized, or by hiring them to handle wheat for the central organization, doing away entirely with the locally owned and locally responsible farmers' elevators. This organization has failed completely. A central organization was formed in Oregon a few years ago to handle milk and dairy products. This was almost exactly on the plan now proposed for New England. It has failed entirely, and the paper published by the association lays the blame to the fact that the organization was not built on locally owned plants. The failure of the Chicago Milk Producers, another central organization, is a third case in point.

The Dairymen's League of New York has often been pointed to as an organization worthy of imitation. This was organized a good many years ago and got in running order about 1916. As a matter of fact, the milk producers of New York are now in the throes of re-organization, and milk is selling in New York for about the same price that it is in New England. The Dairymen's League has found it impossible to take into its fold nearly all of the dairymen in New York. It has also found it impossible up to the present time to eliminate inefficient plants which the central has purchased and taken over. Whatever can be said of its success or of its failure, there is nothing in its history to prove that the organization of a central co-operative which does away with the individual plants and owns and operates them all from a central authority is going to be successful.

While it is not desirable to throttle a reasonable competition in the milk market, it is desirable to place competition on a fair and open basis. Among manufacturers the open price associations have brought about much more satisfactory conditions in the trade in many instances. It would seem to be a sensible move and one in the direction of economy, efficiency, and orderly marketing for the responsible heads of the various milk organizations in New England to come together periodically for purposes of discussing in a friendly way their marketing problems. An association or exchange of this kind should be formed without great difficulty and conducted without great expense. The questions of grading, of transportation, of methods of sale, of price trends, of efficiency in plant operation, of the possible elimination of wastes, of fair methods of competition, might well be discussed. Such an association might employ a statistical service for the purpose of gathering information concerning all the conditions of supply and demand, both in our own and in competing markets, giving out this information currently to all the co-operating bodies. This would educate the distributors as well as the farmers to the milk situation, and would bring to light a great many facts now hidden from the general public.

Such an organization as this might well be the point of departure for a larger central marketing organization, or for the development of more local co-operative associations if they seem desirable. There is no question that in a short time an association of this kind would stabilize conditions in the milk market to a very great extent. It is probable, too, that the final outcome would be a strong central marketing association. Such an organization has the advantage of being easily and cheaply formed and in a very short time. It has the advantage also of taking away nothing from the existing organizations, of giving due weight to all of them, as well as to any semi-organized groups of farmers who are selling their milk on the market. There is no reason why the unorganized milk producers might not come in through some delegated representative. It would be further advantageous in that no large and expensive plan of organization would be entered upon, and that all the possibilities had been fully thrashed out and all the terms made familiar to all the organizations already in existence. It would probably save hundreds of thousands of dollars in the expense of organizing a central association when the time seemed desirable. For the present this seems to be a reasonable and sensible method of procedure.

EVER FAILING OR NEVER FAILING PASTURE

Part 5.

Dairymen Answer Objections to Sweet Clover

WILBER J. FRASER, University of Illinois

It is the opinion of 81 dairymen that:

If cows are turned onto sweet clover when it is young, as they should be, there is no difficulty to get them to eat it after the first two or three days.

There is practically no trouble from bloat on sweet clover pasture if cows are full before being turned on, and once on, kept there night and day, and given access to a little dry roughage, salt, and water.

The same precautions prevent tainted milk.

THE three objections often mentioned in connection with sweet clover pasture are that the cows will not eat it readily, that it sometimes causes bloat, and that it occasionally taints the milk.

To get reliable and accurate information on the advantages and disadvantages of sweet clover pasture, we must get it direct from the men who have used it in the past and are using it at the present time.

No Trouble About Palatability

Some farmers seem to think that cows will not eat sweet clover. This is true if the clover has become tough and woody and the cows have an abundance of other good feed. But none of the 81 men who reported their experience in pasturing sweet clover last year, or the 32 men who reported the year before, had any trouble in getting their cows to eat it freely after the first three days.

Of course, everyone knows that cows like a variety of feed and will eat the three or four feet of bluegrass around the fence row tight to the ground before they make much impression on a sweet clover field. Maes Brothers in Jackson County, Illinois, after pasturing sweet clover that was to be plowed under for corn, turned their cattle onto a mixture of bluegrass and sweet clover in a large field when the sweet clover was from 18 inches to two feet high on May 22. I made a careful inspection of this field on May 27, and it was very evident that the cattle had eaten relatively more sweet clover than bluegrass.

Sweet clover pasture must be a palatable feed, for a large number of cows produced 40 lbs. of milk, and some cows produced from 55 to 75 lbs. of milk per day on it for a considerable time without grain or any other feed, as was reported in a number of cases by men answering the questionnaire. A cow has to eat a tremendous amount of it to produce this quantity of milk, which they would not do if the feed were unpalatable.

I have never seen anyone who put his cows on sweet clover pasture when the clover was young and tender who experienced any difficulty, after the first day or two, in getting his cows to eat it, and this trouble was incurred only the first year the cows were pastured on sweet clover. We are quoting more than 100 men when we combine the answers from this and last year's questionnaire and say that *there is no serious trouble in getting cows to eat sweet clover and use it to good effect in producing milk.*

Typical Bits of Evidence

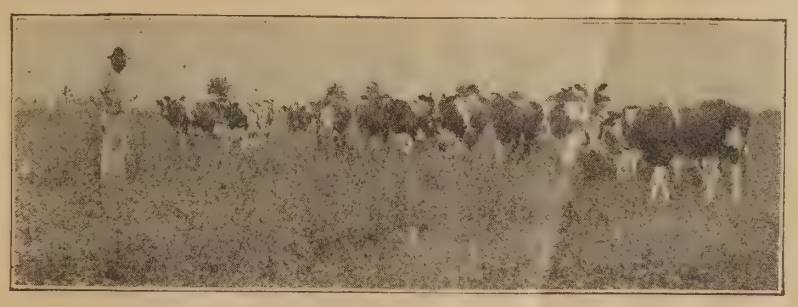
The following statements are interesting in this connection:

"I have a large pasture of bottom land that can not be tilled, but I sowed a small piece of sweet clover for night pasture and think it greatly helped the milk flow. After the cows became accustomed to the sweet clover pasture, they were always anxious to get to it when I brought them up from the bluegrass pasture."—Earl Henry, Northern Illinois.

"The cows had to learn to like sweet clover when first turned on, but it took only a few days."—H. K. Williamson, Central Illinois.

"The cows did not like sweet clover pasture at first, but after they started eating it, the milk flow immediately increased. I am sowing 17 acres this spring. My cows produced an average during the year of 9,100 lbs. of milk."—D. T. Smiley, Northern Illinois.

Thus is the palatability bugaboo disposed of.

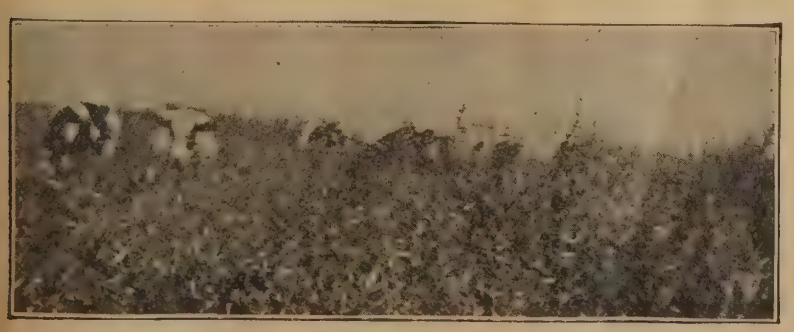


JOHN MARKUS' DAIRY HERD ON SWEET CLOVER IN SOUTHERN ILLINOIS, MAY 29

These cows produced well on this pasture, receiving no other feed all summer, which shows sweet clover is palatable. To keep sweet clover pasture most palatable and have it produce the best, it should be stocked heavily enough to keep it eaten down to about the height pictured.



This is the third year that 150 head of United States Army horses have been pastured on sweet clover on this Central Illinois farm during June, July, and August, and have come off the pasture in fine flesh. It has been found that they stand the following year's work much better and keep in better spirit than when pastured on bluegrass, from which they had come in thin condition the previous two years.



A SWEET CLOVER PASTURE IN CENTRAL ILLINOIS, JULY 17

It was allowed to get too tall and unpalatable for the best results, yet these cows produced well on it all summer.

Easy to Avoid Taint in Milk

Out of the 81 men giving their experience in pasturing dairy cows on sweet clover, 68—or 85 per cent—said that it did not impart a bad flavor to the milk. The other 13 said it imparted a slight flavor at times, but this was usually when the cows were first turned on, and did not occur when a dry roughage such as straw or hay was available, although the cows ate very little of the dry roughage. In last year's questionnaire 30 out of the 32 farmers reported no trouble from off-flavored milk.

Tainted milk can be avoided by continuing to give the cows a little dry roughage to keep their bowels in good condition. This is especially important when cows are first turned onto sweet clover pasture. Many dairymen in Illinois who are pasturing their cows on sweet clover and are shipping milk to cities, have no objections raised because of a sweet clover flavor in the milk.

Six Out of Eighty-one Report Bloat

Out of the 81 men, the following six are the only ones making any definite statement of trouble from bloat. All the other 75 men answered "no" or its equivalent to the question—"Did you have any trouble with bloat?"

"I have little trouble from bloat. Cows should be first turned onto sweet clover pasture with full stomachs."—A. J. Yoder, Central Illinois.

"I have quite frequently had trouble from bloat."—Andrew Johnson, Northern Illinois.

"About four cows bloated. I had some second crop red clover in same field and had a great deal of wet weather."—George Ferry, Northern Illinois.

"I lost four cows in one year. I think clover is too rank, but if they can run to a straw stack, they do not bloat as readily."—George Nimmo, Central Illinois.

"I lost one heifer from bloat when I changed from the big dry clover in late summer onto the new stubble clover. This heifer ate too much because she was not full of other feed before being turned on."—W. K. Wilby, Northern Illinois.

"I turned one new cow on sweet clover pasture when she was hungry and had a slight case of bloat."—J. J. Kennedy, Northern Illinois.

Of the above six instances of bloat, two were caused by turning the cows on when hungry and when the clover was wet with dew. Two occurred where there was a large amount of red and alsike clover in the pasture, and it is well known that these have a tendency to cause bloat. In only two cases were cattle lost, and these were both on farms where dry straw was not available.

From this it is seen that practically all these cases of bloat were preventable if the ordinary precautions had been taken.

In the questionnaire sent out last year, of the 32 replies, 28 reported no trouble from bloat. With two, the trouble was but slight and two dairymen each lost one cow by bloat, but admitted it was their own fault because they turned the cows on when hungry and when the sweet clover was wet from dew.

Little Danger From Bloat

The following are statements from farmers who have had no trouble from bloat and what they say about how to prevent it.

"You want to keep cows on pasture day and night, then you have no trouble with bloat."—Henry Kalmer, Southern Illinois.

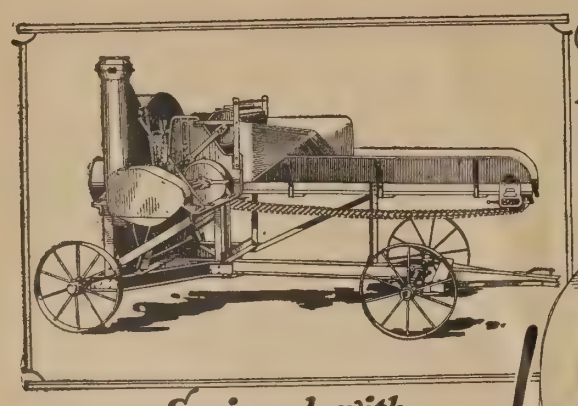
"A load of straw drawn into the sweet clover pasture will be relished by the stock and will keep them from bloating. A good cure for bloat is to stand the cow in the hog chute or some place where her front feet are about two feet higher than the rear ones."—J. P. Walsh, Southern Illinois.

"I never heard of or saw any bloat from sweet clover. That is one of its good points."—Frank Easterly, Southern Illinois.

"I have had no trouble with bloat even when the sweet clover pasture was wet from rain or dew."—Edw. Schuetz, Northern Illinois.

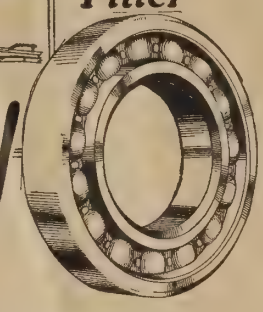
I recently visited many dairymen who are pasturing sweet clover, in different parts of Illinois, and while bloat has been much more prevalent this spring than ever before, it was undoubtedly caused by frosted clover, as we had five frosts after May 10 in central Illinois, and it is well known that frosted sweet clover will cause bloat. When sweet clover has not been frosted, I have never heard of a case of bloat if the cows are kept continuously on sweet clover night and day, and are given access to dry roughage. Straw or corn stover are excellent feeds for this purpose and usually the best way is to haul a jag of straw into the sweet clover pasture as often as needed.

Thus we see that the three objections to sweet clover pasture which are commonly raised, come to naught when they are put to the actual test in good, intelligent dairy farm practice.



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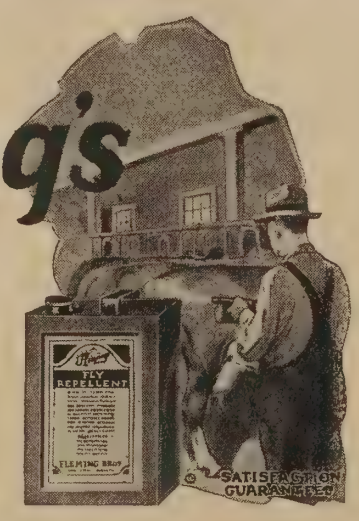
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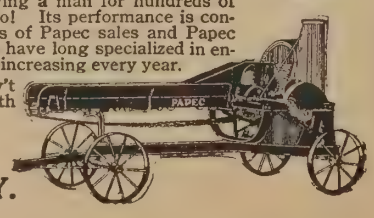
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Plan for Organizing New England Milk Producers

WHEN it became desirable to reorganize the New England Milk Producers' Association, a committee was selected to formulate a plan. Two plans were presented by members of the committee, one providing for pooling all the milk produced in the New England States and the other to build local institutions and then federate them. The majority of the Committee voted for the pooling plan and those favoring it are now attempting to put it into operation. Hon. E. S. Brigham, Commissioner of Agriculture of Vermont, outlined the federation plan and it is as follows:

Each community having a sufficient number of dairy cows (500 or more) should form a local co-operative corporation for the purpose of erecting or purchasing a plant adequate to receive, process, and manufacture the dairy products of the community.

The plant, if located sufficiently near the railroad to make milk shipping possible, should be equipped with facilities for handling fluid milk for shipment to market and with facilities for manufacturing milk into one or more by-products. If the plant is located a great distance from the railroad, manufacturing facilities only need to be provided.

The local co-operative corporation should be financed by sale of stock to the dairy farmers of the community who agree to deliver the product of their dairies for a stated length of time. The stock should be in proportion to the number of cows owned by the patron and may be issued on the stock rotating plan.

The local co-operative corporation should be managed by a duly elected board of directors chosen from members of the local organization, who should have authority to employ a manager for the plant and other employees and to carry on the general business of the plant as outlined by the by-laws adopted.

When a sufficient number of local co-operative corporations have been organized and are operating plants, the next step should be to form a federation of such plants, delegating the federation such functions and such authority in the management of the local plants as may be agreed upon.

The federation should be organized as a co-operative corporation, having each local plant as a member and should have a board of directors and other officers as provided by law.

The federation should employ a general manager who should be the chief officer and who should have, subject to the approval of the federation board of directors, the right to exercise the authority delegated to the federation by its contracts with member local co-operative corporations.

This authority should include the following:

(a). The employment of an inspection force to inspect milk and cream at the plants and to visit farms contributing product of inferior quality, with a view to making improvement. These inspectors should have the right to reject milk or cream which did not come up to a certain standard agreed upon.

(b). The employment of trained specialists in the processing of market milk and in the manufacture of all kinds of dairy products, whose services should be available to the managers of the local plants and to whom such managers should render reports, so that all milk should be handled in such a way that a uniformly high quality of milk and other products should be offered in the market.

(c). The provision of storage facilities so that products like cheese could be held and cured under suitable conditions until ready for market, and where products resulting from seasonal surplus could be held and released when the market would take them.

(d). The establishment of a selling agency in city markets as necessity developed. A sales force should be employed to make sales and see that customers have service. A laboratory should be established to make butterfat and quality tests. Facilities for carrying necessary stocks to meet the demand of customers should be provided.

(e). The establishment of a purchasing agency through which local member plants could purchase all supplies. An effort should be made to standardize supplies and equipment and thereby simplify the problem of stocking repairs and supplies likely to be needed on short notice.

(f). The establishment of an accounting service which should provide member plants with an adequate method of bookkeeping and with supervising accountants.

(g). The advertising of the products offered for sale by the federation.

The current expenses of the federation should be met by an assessment made upon each dollar's worth of product handled through it.

Property purchase should be made by stock issues subscribed for by members plants.

The contract of the federation with member plants should provide for the manufacture and sale of the entire output of such member plants in such form and manner as the general manager of the federation should direct. The receipts of such sales should be prorated to member plants on the basis of amount of product contributed, subject to such equalizations for difference in cost of transportation, quality of product, cost of manufacture of different products, and allowances for seasonal variation in production as a board of equalization composed of a representative from each contracting member plant and the board of directors of the federation should agree upon.

Seasonal surpluses should be cared for insofar as possible by withdrawing from milk shipping plants least advantageously located and the manufacturing of the entire output of such plants.

The aim of the federation should be the production and manufacture of the finest quality dairy products in the most efficient manner possible, the feeding of such products into the markets as they are needed, and the creation of demand by service, advertising, and satisfactory goods.

The existence of a market price, determined by supply and demand, which is a necessity as a regulator of the amount of production required to supply demand, existent or potential, would be recognized.

Any dairy community would be admitted to the federation if it qualified by erecting a suitable local plant and became a member of the federation.

Due to essential changes, the article entitled, "The New England Dairy System, Inc.", will be found on the following page instead of this page as is stated in an editorial.

New England Dairy System, Inc.

THE majority of the Committee selected to work out a marketing plan for the New England dairy farmers proposes the centralized form of organization. The object and intent of this association shall be to promote and encourage better and more economical methods of production and to minimize extravagance, speculation, and waste in the manufacture and sale of milk, cream, butter, cheese, and other dairy products and by-products and to engage in the intelligent and orderly handling, grading, marketing, manufacturing, storing, and advertising of dairy products and by-products.

We present an outline of the proposed contract which will be offered to the milk producers in New England to sign and in so doing we give in substance an outline of the centralized plan of organization. The copy of the contract which we have was agreed to some weeks ago by the committee selected to formulate a plan to reorganize the milk producers in New England. It is quite possible some minor changes have been made by the committee since that time, but the outline which follows gives in the main the proposed form of the centralized organization.

The New England Dairy System agrees to buy and the member agrees to sell and deliver to the System all milk and cream owned and controlled by him for a period of five years from the date of signing the contract. The dairy products of the member will be delivered at such points as the System may designate.

The member expressly warrants that he has not heretofore contracted to sell milk to any firm or person.

The member agrees that his milk shall be produced, kept, and delivered under sanitary conditions and be in conformity with the requirements of the local Board of Health.

The System shall have the right to reject any milk or other dairy products not conforming to the System standard. The System shall also have the right at any time to inspect the cows, stables, milk houses, and other equipment for the production, storage, or shipment of milk by the members.

It will be the duty of the System to resell the milk purchased from its members and at prices which in the judgment of the Board of Directors of the System would yield the members the highest return.

The money received for milk, cream, and other dairy products shall be mingled in one fund and from the total receipts the Board of Directors shall pay the cost of handling and all other costs for conducting the business which the System operates, including dividends on Class "B" stock at a rate not to exceed 6 per cent per annum and the setting aside of an amount as a reserve fund. After all legitimate expenses have been paid, the balance shall be distributed to each member in such manner that each one shall receive the same basic price per unit of milk. The Board of Directors shall determine the basic price, differentials in quality, cost of transportation, etc.

The contract provides that the member will purchase Class "B" stock in the System to an amount not exceeding 5% of the purchase price of his dairy products sold to the system; and for this purpose the member expressly authorized the System to withhold this amount monthly from his milk check.

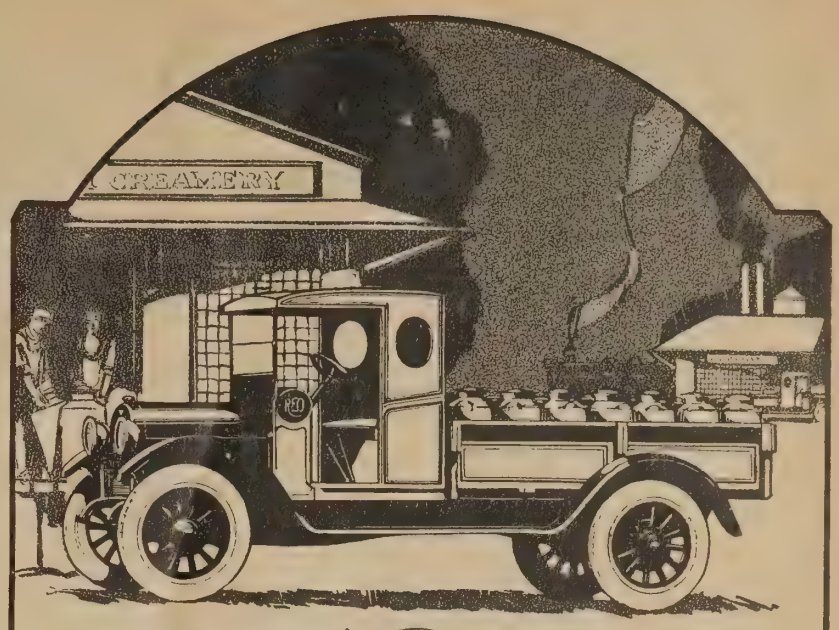
The member agrees that he will endeavor to follow the suggestions of the System as to the proportionate quantities of milk produced during the several months of the year. The purpose of this is to provide an adequate supply of milk for the consumer at all seasons of the year.

Should the member fail to sell and deliver his dairy products to the System in accordance with the agreement made, he agrees to pay the sum of 50 cents per cwt. of milk to the System. The member further agrees that in the event of a breach or threatened breach by him of any of the provisions relating to the delivery of milk or other dairy products, the System shall be entitled to an injunction to prevent breach. If the System finds it necessary to bring any action whatsoever by reason of the breach or threatened breach, the member agrees to pay the System all costs of court, costs for bonding, and otherwise.

The contract shall run for a period of five years and continuously thereafter unless cancelled by notice by either party between the first and fifteenth day of November both inclusive of any year. The notice must be made in writing and will become effective on the following first of March.

The contract will not become effective until a definite number of cows have been signed. We are unable to state definitely what percentage of the cows must be signed before the contract becomes effective. It is generally held that about 70 per cent of the cows would have to be signed to make the contract legal. The number of cows in each one of the New England States is to be determined by the Commissioner of Agriculture in each state. The copy of the contract in our hands provides that if the required number of cows are not signed, those signing may send representatives to a meeting for the purpose of determining whether the organization should go forward. Opportunity is given for those desiring to withdraw, to do so.





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Holds Em All



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EDITORIAL COMMENT



A DAIRY farmer recently discovered he was running his hand separator backwards and it was losing $2.50 worth of fat per month per cow. If he had not been a member of a cow testing association, no telling how long he would have sustained this loss.

A FARM laborer sent us a very commendable letter setting forth his idea of the relationship between the farm owner and the hired man. It came to us unsigned and, since it is our policy not to publish communications of this character, we have filed it. This article is so full of human interest and presents the side of the hired man so clearly and well, that we would like to publish it in Hoard's Dairyman and will do so if the writer will send us his name. We do not desire it for the purpose of publishing it in connection with his communication. We are willing to sign it "A Worker" or anything else, but we must have the names and addresses of those who prepare communications for us.

NEW ENGLAND MILK SITUATION

The New England Milk Producers' Association, organized eight or ten years ago, has rendered the milk producers of New England a good service and has done much to stabilize the milk market and milk prices. This association handled a large volume of milk and for several years was successful in securing very attractive prices for its product. The price of liquid milk in Boston became so high that during the past year a chain store system with over 300 retail stores began to handle milk from local co-operative milk producers' organizations. This was sold over the counter in these stores on a cash and carry basis for from two to four cents per quart under the price which the regular dealers charged for milk purchased from the New England Milk Producers' Association and delivered at the house. A number of creameries began to put their milk on the market because they found it more profitable to dispose of it in this way than to manufacture it into butter and utilize the skimmilk for growing pigs and calves. These outside co-operatives selling milk at a lower price than asked by the N. E. M. P. A., soon brought about a condition which caused the price of liquid milk to decline and the association was no longer able to obtain much more than butterfat prices for its milk.

A meeting of the leading dairy repesentatives of New England was called and a committee of fifteen was selected to provide plans for reorganizing the milk producers in the New England States. The committee brought forth two plans, namely, the federated and the centralized plans, the latter being favored by the majority of the committee.

The centralized plan provides that all local plants are owned and operated by the organization as a whole. Each producer contracts to deliver his milk to this organization for five years. The producer has no direct and personal interest in his local plant. The investment he makes in the property of the organization covers all its property, and there is little opportunity left to capitalize local enthusiasm, loyalty, and ability. Managers of the local plants are responsible only to the central organization and not to the producers delivering milk to the local plant. An abstract of the proposed contract for the centralized plan will be found on page 54.

Another plan was offered by E. S. Brigham, Commissioner of Agriculture of Vermont, and on the same page we publish this plan. We also publish an article entitled "Milk Marketing in New England" by Alexander E. Cance of the Massachusetts Agricultural College, which discusses marketing milk in New England, the purpose of co-operative marketing, and the form in which it may be organized that it will most likely succeed.

It seems to us, as we have studied the milk situation in New England, as well as in the entire United States, that it would be better for the creameries and other local institutions processing milk to form federations rather than to merge themselves into one organization covering all New England.

When the N. E. M. P. A. was organized it was the conviction of some that the better form of organization was to establish local institutions and then federate them. It was held then, as now, that this method would take too long and the milk situation needed immediate help. Eight or ten years have passed, with the producers in the same situation as they were before the N. E. M. P. A. was organized.

Whether the dairy organization is formed upon the local unit or the centralized plan depends finally upon the producers. They will give the several plans proposed careful study if it is their desire to have a part in co-operation and learn what co-operation means and what it will or will not do.

We believe the weight of evidence is that to be most successful the producer should have an interest in and direct his own local co-operative plant. From this follows naturally and inevitably the federation of these several plants for the purpose of the more efficient handling, processing, and marketing of milk. Each unit is then directed and owned by the producers who supply it with milk. They will profit by good management and the production of high quality product. They will not share the profit or the loss of some other unit more efficient or less efficient, as the case may be.

GRADE COWS AT NATIONAL

The good grade cow is to be given special recognition at the National Dairy Exposition in Milwaukee this fall. Grade cows of known production will compete in the show ring for liberal prizes and there will be a sale of high producing grade cows of a magnitude heretofore unknown. In addition there will be some splendid exhibits showing the results of testing cows for economical production.

The competitive classes for each of the five dairy breeds will be as follows:

Class 1. Cows with cow testing association records of 350 lbs. fat or over.

Class 2. Cows under four years old, August 1, 1924, with cow testing association records of 250 lbs. fat or over.

Class 3. Heifers bred to a pure-bred bull and from dams eligible to above classes.

Class 4. Group of 5 cows from a single association, eligible to Classes 1 and 2.

Class 5. Group of 4 cows, eligible to first two classes, sired by one registered bull.

Class 6. Dairy herd of 5 cows, eligible to first two classes, owned by one exhibitor.

Class 7. State herd of 10 cows eligible to first two classes—prizes to be prorated to owners.

Class 8. Champion grade cow of each breed.

For classes 1 to 6 there are ten prizes, ranging from $10 to $30 each. For class 7 there are three prizes, ranging from $50 to $150. A special circular and entry blanks may be secured free by writing W. E. Skinner, National Dairy Association, Milwaukee, Wisconsin.

The grade cow sale will be under the experienced management of C. L. Hill, Wm. Baird, and Glen Vergeront. Animals eligible to the first three classes described above may be entered for a sale. These cows may also compete in the show classes if the owner so desires. Entry blanks and conditions of sale may be secured by writing C. L. Hill, Rosendale, Wisconsin. Great interest has already been manifested in the sale and the management insists that it shall be a sale of quality and satisfaction.

The emphasis placed on cow testing association work at this year's National suggests the following as a slogan:

FEWER AND BETTER COWS
BUTCHER THE BOARDER

TOWNSHIP SOIL SCHOOLS

The soil is the foundation of agriculture and indirectly the foundation of the nation. No people can become strong and resourceful upon an impoverished soil. It must be productive, capable of supplying the population of a nation with adequate food and material from which our clothes are made. One of the fundamental questions of this country is how to keep our soil productive, how to build a permanent system of agriculture.

Plants, like animals, feed. They require nourishment. Every time a crop is removed from the land, a definite amount of fertility is carried away. The good farmer makes a study of the elements which he must replace in his soil in order to keep it productive and to have it yield a sufficient quantity of crops to make them profitable to grow.

In Sauk County, Wisconsin, there is being carried on what may be termed township soil schools. It is the plan to hold a school one day in every township in that county where a complete program for soil improvement will be given. This work is under the direct charge of Griffith Richards of the Wisconsin College of Agriculture. Farmers are taking a deep interest in these schools; as many as seventy-five have been in attendance at one township soil meeting. The object of these schools is to advise the farmers of the value and purpose of the soil survey that is being made in that county and to discuss plans for soil improvement. This is substantial help to the farmers in this community, for it gives them specific information regarding the treatment of their soils, whether they need limestone and what kind of fertilizer should be purchased in order to supply that in which the soil may be lacking. Much fertilizer, as well as effort and money, are wasted in not having definite knowledge of the soil's needs. These schools provide just the knowledge the farmer requires in order to treat his soil wisely.

MILK CONSUMPTION INCREASES

Those who have been concerned about the effect of tuberculosis eradication on the consumption of dairy products should be reassured by the figures recently issued by the U S. Department of Agriculture.

"During the years 1918 to 1923, inclusive, tuberculous cattle killed in the United States increased progressively from 6,544 to 107,321; approximately 95 per cent of tuberculous cattle killed are dairy cows. During the same years the total number of dairy cows in the United States increased by 1,127,000 head, and annual milk consumption per capita showed an increase from 172 quarts to 212 quarts."

It may be concluded that the wide discussion on tuberculosis eradication and the necessity of establishing clean herds has had no detrimental effect on the consumption of dairy products. It is our opinion that tuberculin testing and the eradication of reacting animals lead the consumer to have a greater confidence in dairy products. Of course we must not forget the educational forces in this country that are teaching the consumer the food value and importance of milk. Moreover, the danger of transmitting bovine tuberculosis, especially to adults, is so small as to make it a negligible consideration. The consumer appreciates that tuberculin testing produces better quality products and well informed farmers know they are the ones bearing the expense of tuberculosis. Here we have a happy combination working for good results.

We have found in our many years of experience that seldom does an individual or an industry suffer because it takes the right course. There is something in the human heart that is always in favor of doing right.

Estimating Production

What can we expect from heifers that average 40 lbs. milk a day?

Redtop, Minn. J. M. L.

It is rather difficult to estimate the yearly production of cows where record is had for a few days only. In a general way, we would ordinarily expect that the cows that average 35 to 40 lbs. daily for their best month's production will have an annual production of from 7,500 to 8,500 lbs. milk. If their daily average is from 40 to 45 lbs., they may be expected to produce 8,500 to 9,700 lbs. in a year. There will, of course, be many variations from this with individual cows. It is generally estimated that a heifer will produce, as a two-year-old, approximately 70 per cent of what may be expected from her as a mature cow.

Cost of Producing Crops

A summary of 11,238 reports from farmers all over the country issued by the U. S. Department of Agriculture on the 1923 crop of corn shows an average cost of $0.68 per bushel; the average cost of producing wheat on 7,852 farms was $1.24 per bushel, and the average cost of producing oats on 8,481 farms was $0.52 per bushel. In the cost figures are included charges for labor of the farmer and his family, and a charge for the use of the land on a cash rental basis; so that if the cost just equaled the price, the farmer was paid for his time and his investment.

The average gross cost of producing an acre of corn amounted to $26.40; with a credit of $2.65 for stover the net cost of production was $23.75 per acre or $0.68 per bushel for a yield of 35 bushels per acre. Fifty-three per cent of the total cost was for the work of preparing the seed bed, planting, cultivating, harvesting, and marketing; fertilizer and manure amounted to 15 per cent, seed 2 per cent, land rent 22 per cent, and miscellaneous items such as twine, crop insurance, use of implements, use of storage buildings, and a charge for general farm overhead expense amounted to 8 per cent.

The average sales value of the corn was $0.81 per bushel; this leaves a margin of $0.13 per bushel or $3.41 per acre above the cost, after charging for all expenses, including family and operator labor and use of land.

A summary of the 8,481 reports on the cost of producing oats showed an average gross cost per acre of $20.23, a credit of $2.15 for straw, and a net cost of $18.08 per acre. The average yield was 35 bushels per acre, making an average net cost per bushel of $0.52. The distribution of the costs was as follows: man and horse labor for preparing seed bed, planting, harvesting, threshing, and marketing 49 per cent, fertilizer and manure 7 per cent, seed 7 per cent, land rent 26 per cent, and 11 per cent for sacks, twine, crop insurance, use of implements and storage buildings, and general overhead.

The average sales value per bushel was $0.49, or $0.03 per bushel and $1.70 per acre less than the cost. This would cover all expenses except land rent, including the value of the labor of the farmer and his family and would leave enough margin to take care of 67 per cent of the cash rent reported, or pay 4 per cent on the average investment in land.

Killing Johnson Grass

HOARD'S DAIRYMAN:—About ten years ago the University of Arizona purchased an experiment station in the Salt River Valley near Phoenix. This farm was one solid mat of Johnson grass. The entire 160 acres were divided into 8 different fields. Each of these was handled in a different manner in an eradication of Johnson grass experiment. At the present time there is very little Johnson grass on this farm, though it is still a proposition of continually keeping at it in order to prevent the grass from coming back.

Perhaps the best method which was used in eradication of the Johnson grass at this station was by pasturing with sheep. In pasturing Johnson grass with sheep, in an attempt to eradicate it, one should use more sheep than the pasture can support. In an irrigation country we also find it an excellent practice to keep the Johnson grass well watered so as to force as much top growth as possible. The excess number of sheep per acre enables one to keep this top growth down at all times, thus starving out the root systems of the grass. After such a procedure has been run for three or four months during the growing season, the Johnson grass has been so stunted that it is a comparatively easy matter to kill off a few remaining shoots. It is then necessary to plow up the pasture and keep it in some crops such as small grains or Sudan grass if it can be planted early enough in the season to attain much growth.

Plowing the Johnson grass patch dry and keeping its roots exposed to the influence of our hot Arizona sun has also proven successful. Thorough cultivation with an alfalfa renovator every few weeks to stir up the soil, to keep it well dried out, to rake the Johnson grass roots out on top, has proven to be a good practice. Keeping a Johnson grass patch well plowed and well stirred up during the summer time, and then irrigating and planting immediately to wheat or barley, is about as good a method as one can use in the Southwest if sheep are not available.

The whole secret is to keep down all top growth and thus prevent the manufacture of plant food necessary for the keeping alive of the root systems. R. S. HAWKINS.

Arizona College of Agriculture.

Dairy Cattle Costs in North Dakota

On the majority of North Dakota tenant farms the owner of the land does not share the ownership of such cows as may be milked, however a constantly increasing number of landlords are encouraging their tenants to keep live stock and are furnishing all or part of the milk cows. The accompanying table gives an approximation of the annual cost of maintaining a dairy cow and the distribution of costs between landlord and tenant when on a half share basis under representative North Dakota farm conditions where an interest is taken in dairy cows:

Annual Cost of Maintaining a Dairy Cow in North Dakota and Division of Expense Between Landlord and Tenant

	Total	Landlord's expense	Tenant's expense
Feed: Grain, 866 lbs. at 5-6c	$ 7.20	$ 3.60	$ 3.60
Roughage, 4843 lbs. at ½c	16.14	8.07	8.07
Silage, 2993 lbs. at ¼c	7.48	3.74	3.74
Pasture, 3 A. at $2.00	6.00	6.00	
Man labor, 160 hrs. at 25c	40.00		40.00
Horse labor, 17 hrs. at .09c	1.53		1.53
Cow cost: dep., int., taxes, ins., and miscellaneous	12.10	11.74	.36
Sire	4.00	2.00	2.00
Buildings	6.95	6.95	
Machinery and equipment	3.52		3.52
Management	6.18	3.09	3.09
Total	$111.10	$45.19	$65.91

It will be noted that the tenant bears considerably more than one-half of the cost of maintaining the cows. The division of expenses tends to be unfavorable to the tenant because of the large amount of man labor required by dairy cows. Some farm owners in well established dairy communities contribute toward the labor costs when they are able to procure efficient dairymen as tenants.

Adjustment of returns from dairy cows in proportion to the expense borne by landlord and tenant can be easily made. For example, on the basis of the figures given, the tenant should receive 60 per cent of the returns and the landlord 40 per cent.

Under the commonly used half-share arrangement landlord and tenant would divide the feed costs equally, except pasture, which would be furnished by the landlord. The tenant would furnish all the labor, machinery, and equipment, and would provide feed for the work horses, except pasture. The landlord would furnish the sire and assume all cow charges except miscellaneous items, such as veterinary fees, which would be divided equally. It is assumed that the cost of maintaining the sire is borne equally by the two parties.

It is well to note that of the annual cost of $111.10 for the maintenance of a milk cow, $47.71 consists of a charge for man and horse labor. For the majority of North Dakota farmers with a small number of milk cows, labor on dairy cows does not indicate additional cost, but use of labor that would otherwise be unused, and to this extent represents net returns. Furthermore, on many farms roughage and pasture used for cow feed would otherwise be unmarketable. In calculating the returns from dairy cattle the value of the calves, skimmilk, and manure should be considered, in addition to sale of butter or butterfat. The cows on which the data are based averaged 4,849 lbs. of milk, or 205.6 lbs. of butterfat. The value of the calf at birth was placed at $5.00 and the value of the manure at $20.00 annually.

Since dairy cows require so much man labor it is fair for the owner to supply all of the cows, as well as the dairy bull. When the owner has a very well bred dairy herd he may not wish to divide up the offspring. In this case a clause may be inserted in the lease providing that when heifers are taken into the herd or when the lease is terminated, the tenant will be paid one-half the value of these animals jointly owned. The owner usually retains the right to purchase the tenant's share whenever the latter wishes to sell.—A. H. BENTON in North Dakota Bulletin 171.

The Soy Bean Tariff

Under the caption "Soya Beans in the United States in the Year 1923", the organ of the soap, paint, and oleomargarine industry attempts to convey the impression that the only use of soya beans in this country is as a forage and soil improvement crop; that soya beans are not grown with any thought of their being used for oil production; that the production of soya bean oil from home grown seed is declining and the amount insignificant. This publication says that this amount is "hardly to be found in the records of the tremendous domestic production of oils and fats in the United States" and that the prohibitive tariff against importations of foreign soya bean oil has deprived the domestic industry of "a most valuable raw material without compensating benefit to anyone"; and calls the idea of developing a domestic soya bean oil industry a "thoroughly commercial one".

The fact that up to the present soya beans have been grown primarily for forage and soil improvement, is evidence of its importance for these purposes. It is also true that up to within the past two years soya beans have been grown with little thought of producing seed for oil, but it is not true that the value of soya beans to the farmer is confined to their use for forage and soil improvement, neither is it true that during the past two years no thought has been given to producing soya beans for oil. Both of these statements are untrue as shown by the fact that more than three quarters of a million pounds of soya bean oil was produced from home grown seed in 1922, and nearly one and one-half million pounds in 1923.

The claim is made that the amount of soya bean oil produced is insignificant as compared with the total production of oils and fats in the United States.

Wouldn't it be just as reasonable to tell Farmer Jones that because his crop is so small as compared to the whole crop production of the United States, it isn't worth his while to grow anything on his farm?

Next comes the amazing statement that the "prohibitive tariff against importations of foreign soya bean oil has deprived a domestic industry (paint and varnish) of a most valuable raw material without compensating benefit to anyone".

The author of the above statement has just finished telling us of the insignificance of the whole soya bean oil business, then turns around and says that the tariff has deprived a domestic industry of a valuable raw product (oil), a raw product that the farmers of this country should be producing and which they have hitherto not been able to produce because of these very importations of which he writes.

He winds up by saying "the idea of developing a domestic soya bean oil industry is a thoroughly chimerical one".

According to Webster "chimerical" means "fanciful, whimsical, etc". But, is the increased farm value of soya beans in the United States from over $6,000,000 in 1921 to nearly $14,000,000 in 1923, fanciful?

Is the production of over 2,500,000 lbs. of soya bean oil since the tariff went into effect, fanciful?

Is the opportunity of supplying the 337 million pounds of soya bean oil which has been imported in a single year, and may be again, fanciful?

If the idea of developing a soya bean industry is fanciful, and is as insignificant as these interests would have us believe, why are they having nightmares over it? Why do the users of soya bean oil go to the expense of maintaining offices in Washington, and paying experts to manipulate facts and figures to discourage the farmer's efforts?

They don't want him to grow beans for oil because they will then be compelled to buy home produced soya bean oil at fair American prices.

Great need for soya bean oil in this country caused more than 40 million pounds to be imported in 1923 in spite of the tariff. As our farmers adjust their operations to meet the new conditions his oil can and will be made here and the importance of foreign soya beans and soya bean oil will gradually disappear.—D. A. BRODIE.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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A. J. GLOVER, P. C. BURCHARD

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Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

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Coming Events

Sept. 14-20—Eastern States Exposition at Springfield, Mass.
Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.
Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.
Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.
Nov. 1-8—Pacific International Live Stock Exposition, Portland, Ore.

Another 1,000-lb. Fat Producer.

The latest cow to have her name enrolled on the Holstein honor list of 1,000-lb. fat producers is Dutchland Creamelle Cornucopia, bred and owned by the F. F. Field Holstein Trustees of Massachusetts. As a 5-year-old, she produced in one year 27,690.8 lbs. of milk containing 1,027.33 lbs. butterfat (1,284.16 lbs. butter.)

Uncle Ab says: While it's better to be right than successful, it's also comforting to know that success generally follows the man who is right.

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

WASHINGTON, D. C., JULY 22—Special preparations are being made this year, as usual, for the participation of the United States Department of Agriculture in the National Dairy Exposition in Milwaukee. This participation will be threefold, the personal assistance of the Department experts of both the Dairy Bureau and the marketing force of the Bureau of Agricultural Economics, the special work of the Dairy Laboratory, and the big display exhibits to be built and shown by the Office of Exhibits.

I have just had a preliminary look into the plans for the 1924 exhibit, and it should be said that both in the general plan and in the details to be worked out it will be a superior exhibit to any of those previously made.

⚜

Reports continue to roll into Washington as to the trouble with the corn crop this year. One of the latest and most alarming has to do with the fact that the large requirements for seed the past spring, made larger than usual by large replantings, has drawn seed reserves to a very low point, so that the present bad outlook indicating that there may be a poor yield and very poor seed produced this year will make the situation as to seed very alarming in the coming season of 1925. This, if these reports are to be credited, will carry over the short corn crop through next year and will make for an exceedingly high price for reliable seed the coming spring. All this has a definite reaction on the dairy industry, as also does the high price and short crop of wheat, and the reports of a big falling off in Canadian wheat production. It all points to these factors coming in to slacken up the rapid expansion of the dairy industry, through increasing dairy costs this fall and winter, and through indicating greater profits in cereals and hog and beef production.

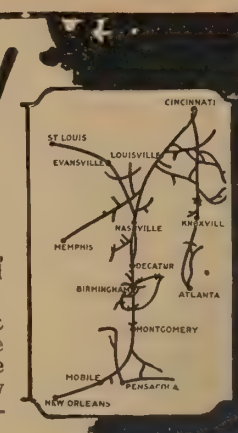
⚜

The Internal Revenue Bureau and the solicitor of the Treasury Department are still trying to unravel the snarl caused by the recent Supreme Court decision invalidating the 16 per cent ruling as a definition of adulterated butter. Until some determination of policy, collectors and agents are largely at a standstill in enforcing the law and it is understood that quantities of high moisture butter are appearing on the markets. Of course, if this is in interstate trade, the 80 per cent butterfat standard applies, but when in intra-state trade, that is, not shipped over a state line into another state, it is not subject to this butterfat law.

⚜

The official announcement of an investigation of the tariff on butter was issued by the U. S. Tariff Commission this past week. The cost of producing butter in this country and in Denmark are the points to be ascertained. The applicants for this investigation hope to show by these figures that the cost is higher in the United States by more than the margin of eight cents covered by the present tariff law, in which case the law will automatically bring about an increase. It is said that President Coolidge is anxious for an early determination of the facts. One important question to be determined is whether or not this butter investigation will cover also an investigation and determination of the cost of producing milk and cream in the two countries.

A Heritage for your FAMILY!



Working as hard as you do—located as you are, how much can you hope to leave your wife and children when you die?

In the North and East, farm values have about reached their peak, while in the South values are steadily increasing; but you can still buy fine farm lands in the South at comparatively low prices, and the increase in values alone will provide a real heritage for your children.

In the South the climate, the all-the-year crop-growing and crop-marketing season, the fine farm and grazing lands to be had at low prices and on easy-payment terms, the cheap and plentiful farm labor—all go to make for profitable farming, dairying, or cattle raising.

The L. & N. Railroad wants to show farmers, stockraisers and dairymen how they can come South and prosper—live better, enjoy more of the good things of life, and be able to leave a greater heritage to their families.

For full particulars write to

G. A. PARK
General Immigration & Industrial Agent,
Louisville & Nashville Railroad,
Dept. H. D. 11, Louisville, Ky.

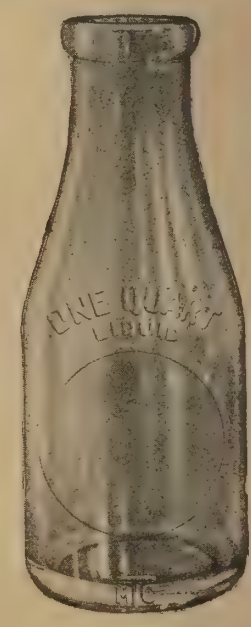


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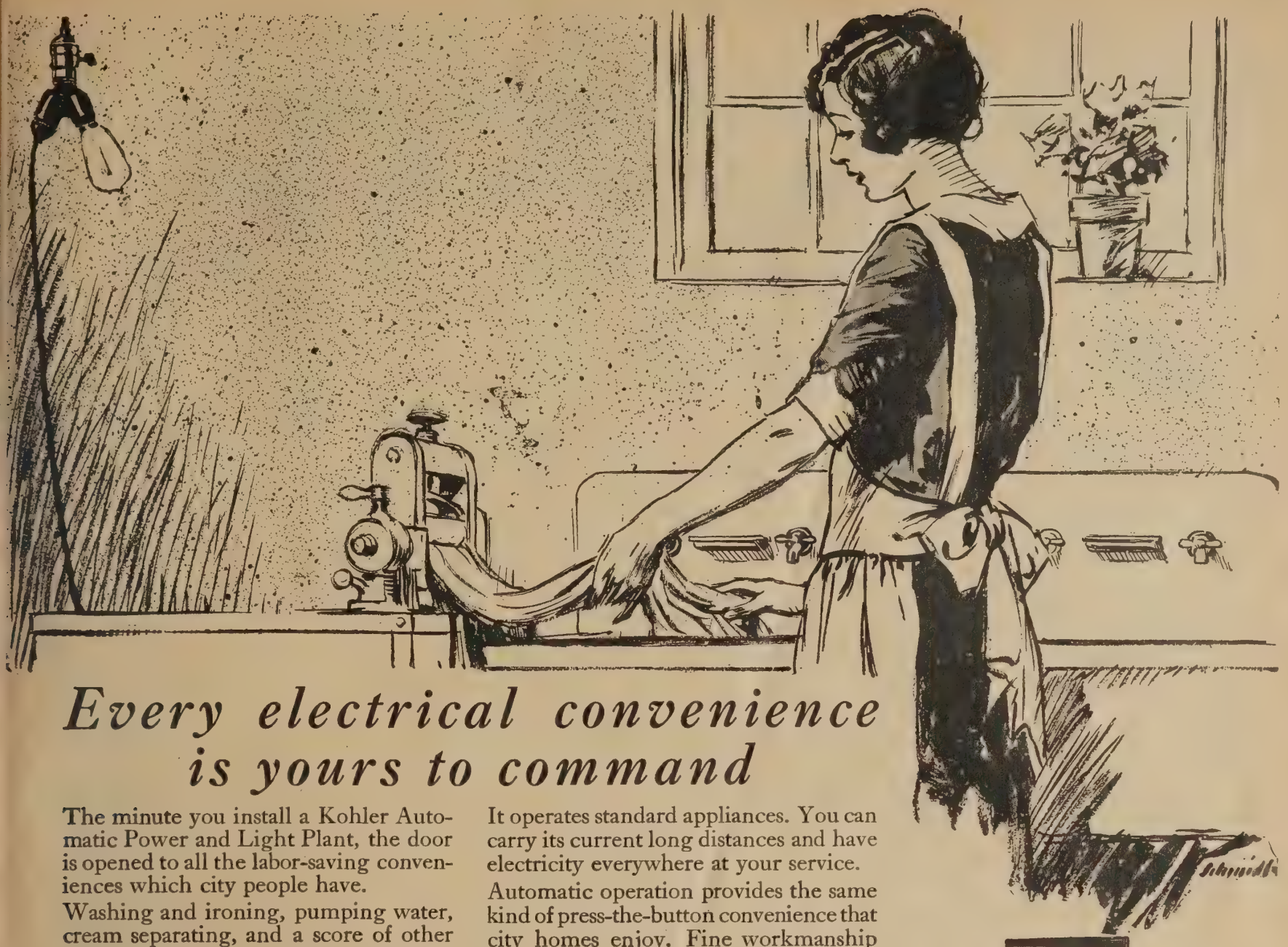
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The minute you install a Kohler Automatic Power and Light Plant, the door is opened to all the labor-saving conveniences which city people have.

Washing and ironing, pumping water, cream separating, and a score of other chores can be done quickly, easily, and economically by this remarkable electric plant. And all the while you have bright, safe light for all your buildings.

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One of the big reasons why Kohler Automatic owners get so much out of electricity is that this plant does away with the need for storage batteries. There is merely a small *starting* battery, similar to the one on your automobile.

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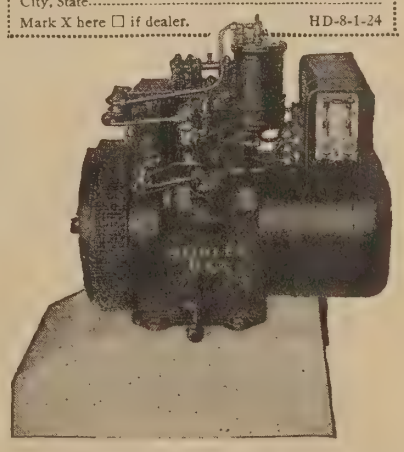
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Kohler Automatic Model S
800-watt; 110-volt, D. C.

Other models, manually or automatically started, 800- to 2000-watt capacity; price range, $360 to $795, complete with starting battery (for automatic units) and 55-gallon gasoline storage tank with fittings

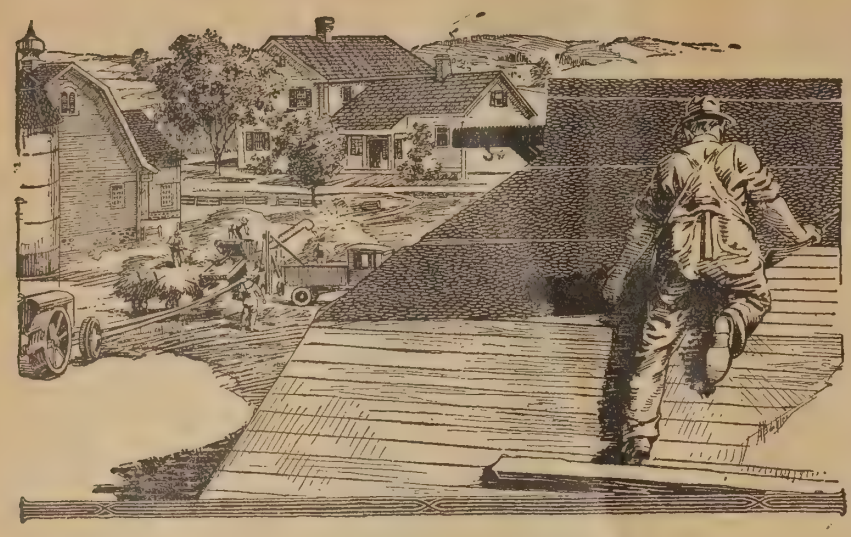
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Lay roofs that don't talk back

What does that mean? It means roofs that don't rot or rust—roofs that don't need painting or patching—roofs that don't catch fire from flying sparks. It means Barrett Roofings.

Once you lay Barrett Roofings you'll hear no more complaints from the house tops. And that means no more worry about leaks—no more digging down in your pocket for upkeep expense. Sixty-six years of experience have taught The Barrett Company how to make roofs that *don't talk back*.

For Your House — A roof of Barrett Shingles gives lasting weather-tight protection—adds beauty and color. Their weather-surface is everlasting mineral in pleasing soft shades. And these rugged shingles are highly fire-resistant. Flying sparks or burning embers burn out harmlessly on their surface. This is important to people who live far from a fire department.

For Barns, Sheds, Etc.—there is Barrett Mineral-Surfaced Roofing, the most attractive roll roofing made. It, too, is fire-resisting—surfaced with unfading mineral in the same pleasing colors. If you don't want color in the roofs of your barns there is Barrett Smooth-Surfaced Roll Roofing—tough, durable, inexpensive, easy to lay.

Call on the Barrett dealer nearest you. Ask to see Barrett Roofings. (Leading lumber, building supply and hardware merchants carry them.) There's a Barrett Roofing that is 100% right for any building on your farm.

Barrett ROOFINGS

Your Choice of Six Styles

Everlastic Smooth-Surfaced Roofing
A roll roofing of best grade roofing felt, saturated with high grade waterproofing material. Made in medium and heavy weights. Tough, pliable, elastic, durable, low in price, and easy to lay.

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A beautiful and enduring roll roofing. Mineral-surfaced in red, green, or blue-black. Popular for cottages, garages, farm buildings.

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Handsome enough for the expensive home, economical enough for small farm house or cottage. Mineral-surfaced in beautiful shades of red, green, or blue-black, with extra-thick, extra-rigid base. Size 8" x 12¾".

Everlastic Single Shingles
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Four shingles to a strip. Mineral-surfaced in red, green, or blue-black. Two sizes—10 or 12⅔ inches deep, both 32 inches long, providing two or three-ply roof when laid 4 inches to weather.

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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Caught On Third Bounce

HOARD'S DAIRYMAN:—Mr. Ward's brick struck before it got here but I caught it on the third bounce and I am handing it back. As a teacher of political economy, Mr. Ward deserves a leather medal with a hole in it. I don't believe Mr. Ward would be able to recognize political economy if he found it in his barn tied up with the cows. I think the trouble with Mr. Ward is that he has been reading open shop propaganda until that noodle on top of his shoulders has got to spinning around until the machinery has jarred loose and he has his thinking apparatus operating in reverse gear.

If Mr. Ward had one of those old union cards lying around he would have a very much better understanding of the organized labor movement and would not be so easily influenced by the open shop propaganda and he would be better able to discuss the question, but he is as near right on this question as he is on the others. He says there is no such thing as overproduction and calls it underconsumption and his remedy to increase consumption is to cut the workingman's wages and decrease his purchasing power as a means of increasing consumption. He pictures a stone wall with flour on one side and hungry workers on the other and offers as a remedy for this situation the importation of more workers to take a few more jobs away from these hungry workers. He says that when 90 per cent of the wealth of this country goes to 10 per cent of the people, this nation will fall.

I don't know anything about his well digging senator, but if Mr. Ward does not approve of him I am taking it for granted that he is a pretty good man. He says he can see nothing in common between the farmer and the working man and what is their gain is the farmer's loss and he is as near right on this question as he is on the others. The fact of the matter is, that the working man is the farmer's best customer and farmers are the working man's best customers. When there is any amount of unemployment the farmer is the first to feel the effects and when the farmers are no longer able to buy the working man's products unemployment follows, so what is to the interest of one is to the interest of both.

Mr. Ward says that a farm can not be operated on an 8-hour basis, but if the force of habit has got so strong that he has to get up at four o'clock in the morning to milk his cows there would be no law to compel him to change his time of getting up at that hour and there would be no law to prevent him from going fishing after he had worked eight hours or even before he had worked his eight hours and he could get back to milk his cows at four in the evening and finish his eight-hour day. It is true that he would not be able to keep as many cows as he does but he would get a better money return for what he did produce. If we did so there would be no surplus to glut the market. I live in the pea growing section and the spring has been cold and wet and a great many peas have rotted in the ground but, as one neighbor says, a half crop will bring more money than a full crop so what is the use of crying and what is the use of producing a full crop if we can get more money for a half crop. What is the use of working 16 hours a day if we can get more money for an 8-hour day? This method of each competing with the other and each trying to produce more than his neighbor is not getting us our share of the money, so why should we continue to do so? I am willing to let the politicians and economists go hang. The government and no force on earth can help us as long as we compete with one another, both in production and marketing, and as long as we produce more than we can sell at a profit. And no one as yet has come forward with a better plan to cut down the production more equitably than by cutting down the number of hours that we work.

New York. A. H. KLEIN.

Feed for Dairy Cows

HOARD'S DAIRYMAN:—Here is a list which I believe would be very good feed for dairy cows: corn silage, unsalable potatoes, and unsalable fruit. I once thought carrots a very good feed for cows, but government experimental work now seems to think beets preferable. Ground corn and ground oats would also be a good thing to feed, and lental and oat straw mixed with molasses.

There are several things, including waste from mills and factories, that are put in sacks and placed on the market, and it might not be a bad idea to buy this material if the milk producing elements in the same are large enough for a profit.

I do not think it much use to feed hay in the winter time, for most of the hay in Western Oregon and Washington is so coarse that cattle will not eat a tenth of it. If the same ground were used for pasture it would be far more profitable.

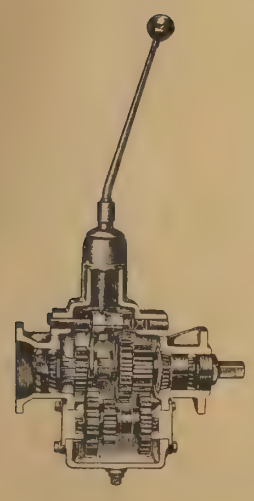
I believe that only about one man in a hundred cuts his hay early enough for cattle to eat every blade of the same. If the first hay was cut in May, and the best time would be immediately after a long rain when there would be assurance of several days of good weather, a second crop of hay might be cut in July. The result would be two good crops of early cut hay. But they never do that way in the far west. When the cost of harvesting hay is considered, I think that there is much more profit to let a band of dairy cows have the field. This would greatly enrich the soil. Most farmers wait until late in July, when the hay has grown very tall and coarse, and most of the field flattened down by some heavy rain. When cut with a mower, several inches will be found on the ground and looking quite as coarse as chickery.

It would be easy to make considerable money with a large band of very good dairy cows, if nothing on the farm was ever disturbed. But where anyone is living in a vicinity where people are strongly opposed to them it is not much use; the loss will be greater than the profit. And this sad result has been realized in California.

Washington. C. P. GREELY.

A recent survey of bankers of a neighboring county shows a number of missing and cracked buttons on their vests, caused by leaning over the counter at the cashier's window looking to see if there was any milk on the shoes of the fellows who were trying to borrow money. Sh-h.—Exchange.

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April. 2, 1924.

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Owing to the fact that by installing your Transmissions in my Ford Trucks and gaining such great satisfaction from same, I feel it is my duty to write your firm. I have never had one minute of trouble with any of your Transmission in the two years of service that I have used them. Since installing Warford's we have increased our loads and now carry an average of 53 Ten Gallon cans of milk per trip, total weight including cans about 3100 pounds. I find that I save fifty percent on time which alone pays for the Transmission in one week of steady operation, as we make two trips where we formerly made one, and also get 20 miles to the gallon of gasoline instead of 11 miles our former regular Ford Truck mileage.

I must say if you quit making these Transmissions, I will limit my purchase of Ford Trucks to exactly what I have on hand, because, this Transmission of yours is the very heart of the Truck and the only economical thing that makes it possible to operate Ford Trucks in my line of business, furthermore, if anyone wishes to know more about your Transmissions from me, I will gladly demonstrate or communicate with them.

Sincerely yours
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Warford would be a worthwhile investment if it gave you nothing more than a two-ton Ford truck —but Warford gives you a speed truck too.

To Mr. Mattheisz the speed-wagon swiftness of the Warford equipped Ford means even more than its two-ton capacity. Warford speed gives him two trips where he made but one before, writing off Warford cost in a single week.

Mr. Mattheisz' experience, 20 miles to the gallon with Warford, 11 miles without, makes the Warford claim, "two-ton performance at Ford one-ton cost" more than modest.

This much you can bank on—with Warford equipped Ford trucks your hauling costs will be less. Ask your Ford dealer or write us today.

Write Your Nearest Distributor Today

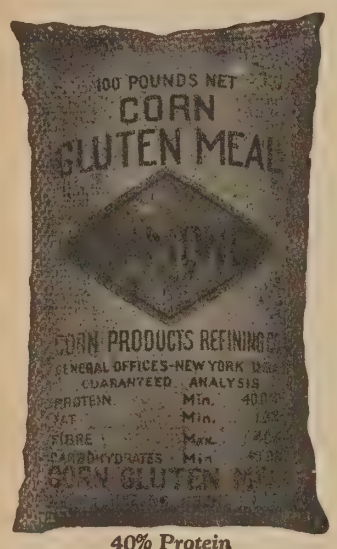
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when, on a single farm in one year, five cows average 1248 lbs. butter, four of the five average 1261 lbs., two of the five average over 1300 lbs., and one, Anna Lenox DeKol 2nd, makes a world's record for 12-year-olds, all breeds, with 28,646.3 lbs. milk, 1367.58 lbs. butter?



40% Protein

That's exactly what happened at Yates Farms, Orchard Park, N. Y.,—all these great records being completed since last December.

Chiefly, it proves two things—that these are good cows and that they're well fed. At Yates Farms liberal amounts of

DIAMOND CORN GLUTEN MEAL

are fed all year 'round.

Mr. F. M. Nichols, Herd Manager at Yates Farms, wrote: "I consider Diamond Corn Gluten Meal one of the most essential feeds for any dairy ration."

Mr. Nichols does not believe in ruining a cow for the sake of a great record. These animals were fed for big production without sacrifice of health.

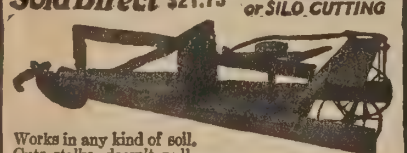
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The PERFECT CORN HARVESTER

Sold Direct $21.75 JUST the THING for SHOCK or SILO CUTTING



Works in any kind of soil. Cuts stalks, doesn't pull like other cutters. **Absolutely no danger.**

Cuts Four to Seven Acres a Day with one man and one horse. Here is what one farmer says:

NEVER SAW ITS EQUAL.

Gentlemen:—In regard to Corn Harvester I bought from you, I can truthfully say that I never saw its equal. I gave it a fair trial through a quarter of a mile of poor light corn, right after a rain, and only pulled one hill. Respectfully,
T. M. DOUGLAS, Coulterville, Ill.

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Send for booklet and circulars telling all about this labor-saving machine; also testimonials of many users.

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Soft Corn Crop

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for our liberal proposition and easy terms of settlement on any Silo in the Independent line including the famous Triple Wall, Tapestry Tile or Dependable Wood Stave. **No money down.**

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752 Pillsbury Avenue, St. Paul, Minn.

When writing advertisers please mention Hoard's Dairyman.

DAIRY MARKET NEWS

Cheese Markets

(Report from U. S. Dept. of Agriculture)

Cheese markets were firm particularly at country shipping points during week ending July 19th. Current inquiry was in excess of immediate supplies. Into storage movement continues. Production is holding up well but the peak has passed. Hot weather defects are beginning to appear.

The average wholesale prices on American cheese, style Twins, for the week ending July 19, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending July 19 1924	July 12 1924	July 19 1923
	Cts.	Cts.	Cts.
New York	20.7	20.7	25.5
Chicago	17.7	17.9	21.8
Boston	21.4	21.6	25.2
San Francisco	20.5	21.1	23.3
Wisconsin Board	17.6	17.4	21.7

The receipts of cheese at these markets were 5,623,703 lbs. for the week as compared with 6,339,925 lbs. last week and 5,805,122 lbs. a year ago.

Twin City June Milk

The Twin City Milk Producers' Association paid its members $1.85 a hundred for 3.5% milk f. o. b. Twin Cities. The production for June set a new record, with the association handling over 25 million pounds of milk. The association paid 45 cents a pound for butterfat in sweet cream, which is two cents above the price paid a year ago and 3½ cents above New York extras.

NEW YORK, July 29—Butter, quiet; receipts, 3,680 lbs.; creamery, extras, 38@38¼c; special market, 38½@39¼c.

Eggs—Quiet; receipts, 10,092 dozens; nearby brown and mixed, 37@44c.

FOND DU LAC, Wis., July 26—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 18c; Twins, 17¾c; Single Daisies, 18½c; Double Daisies, 18c; Young Americas, 18¾c; Longhorns, 18½c; square prints, 19c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange July 26: Single Daisies, 17½c. On Farmers' Call Board July 26: Twins, 16¾c; Young Americas, 17½c; Longhorns, 17½c; square prints, 17¾c.

MILWAUKEE, July 26—Butter, creamery, extra, tubs, 36c; standards, 35½c; extra firsts, tubs, 34@35c; firsts, 32@33c; seconds, 30@31c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 26½@27c; ordinary firsts (standard cases), 25½@26c; miscellaneous lots, shippers' cases returned, candled, 22½@23½c; seconds, dirties, 20@21c; checks, 20@21c.

Cheese—American full cream, Twins, 18@18½c; Young Americas, 18½@19c; Longhorns, 19@19½c; Daisies, single, 18½@19c; American, 33c; Pimento, 34c; Swiss, 42c; special market brick, fancy, 15½@16c; Limburger, new, 19@20c; imported Swiss, loaf, 44@48c.

CHICAGO, July 28—Butter—Receipts, 20,793 lbs. Extras, 36c; standards, 35½c; dairy, firsts, 34½c; seconds, 32@33c.

Eggs—Receipts, 23,885 dozens. Ordinary, 25½@26c; firsts, 26½@27½c.

Cheese—Twins, 18c; Young Americas, 19c.

Butter Markets

(Report from U. S. Dept. of Agriculture)

Butter markets continued nervous and unsettled during the week ending July 19. Sentiment in the markets mixed, but there was sufficient support to prevent sharp declines, despite release of monthly cold storage report during week which revealed more than an 11,000,000-lb. surplus over a year previous. Heavy production continues. Import situation unchanged and of little consequence.

The average wholesale prices on 92-score butter for the week ending July 19, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending July 19 1924	July 12 1924	July 19 1923
	Cts.	Cts.	Cts.
New York	40.8	41.0	38.5
Chicago	38.3	39.0	37.4
Philadelphia	41.5	41.6	39.5
Boston	40.5	41.4	39.0
San Francisco	41.1	39.1	41.5

The receipts of butter at these markets were 21,481,947 lbs. for the week as compared with 23,749,345 lbs. for last week and 17,528,159 lbs. a year ago.

Variation in Test

HOARD'S DAIRYMAN:—Articles similar to the one by Mr. G. R. Rice will go a long way towards convincing the many dairymen who belong to cow testing associations that the tests given monthly by the tester on milk and cream will not necessarily correspond with the tests given by dairies and creameries.

Experience as an official tester has demonstrated clearly to me that cows will vary day from day ever under normal conditions and if a herd happens to be up in test the day the cow tester is testing then the test for the month would be accordingly high. Occasionally the test proves a good average for the month but this is more or less of an accident. I am inclined to think that the tester who made the statement that 90 per cent of the difference in fat test is the fault of the farmer, spoke at random.

I have samples of milk given to me to test by men who have been shut off from shipping, presumably for having low testing milk.

Although for courtesy's sake I am obliged to test these samples, I feel it is sometimes the cause of unnecessary argument between producer and buyer. In some instances I have found that samples given to me were actually taken from the top of a can of milk after it had set for an hour after milking. Samples of this type will invariably test abnormally high, which demonstrates the necessity of mixing milk thoroughly before sampling.

I agree with Mr. Rice that the procedure of taking a composite sample before tester comes is the only reliable way to get a correct idea as to what the milk being shipped tests.

Porter County, Ind. H. L. G.

Carload Prices of Hay, Straw, and Feed, July 19, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	31.50	30.50	.....	25.00	27.25	25.00	26.00	23.75	24.00	26.50	19.00	25.00	.....	15.50	
No. 1 Clover, mixed	.....	.....	.....	21.00	23.75	.....	.....	.....	20.00	.....	.....	.....	.....	14.50	.....
No. 1 Clover	.....	.....	.....	19.50	.....	.....	.....	.....	20.50	18.00	.....	18.00	.....	14.00	.....
No. 1 Alfalfa	.....	30.50	.....	.....		32.00	30.00	23.55	24.00	25.00	19.50	...	19.50	18.50	27.00
Standard Alfalfa	.....	26.50	.....	.....		29.00	28.00	21.25	.....	21.00	17.00	.....	17.00	16.25	25.00
No. 2 Alfalfa	.....	25.50	.....	.....	.....	23.00	.....	19.75	22.00	18.00	15.00	.....	12.00	13.25	24.00
Oat Straw	...	15.00	16.50	16.00	17.00	.....	.....	.....	10.00	11.00	8.00	....	8.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														34.00
Spring	31.50	.....	31.00	29.00	29.75	31.00	.....	.....	27.50	25.50	23.00	.....			
Soft Winter	.....	.....	31.75	31.00	31.50	31.50	.....	26.75	27.50	.....	24.00	25.00		23.00	.....
Hard Winter	.....	.....	30.75	30.00	...	31.00	.....	26.50	27.50	26.00		25.00	.....	23.00	.....
Wheat Middlings	.....	.....													
Spring (Standard)	33.50	.....	32.50	32.00	22.75	34.00	.....	.....	29.50	28.00	25.50	.....	.....	.....	40.00
Soft Winter	.....	.....	37.00	36.00	32.25	37.00	.....	.....	31.50	.....		32.00	.....	28.50	.....
Hard Winter	.....	.....		37.00	.....	34.00	.....	.....	31.50	.....	.....	30.00	28.00	28.50	.....
Wheat Millrun	.....	.....	30.50	.....	.....	34.00	.....	.....	.....	.....	24.50	.....	.....	26.00	34.00
Rye Middlings	.....	.....	28.00	29.00	29.00	.....	.....	.....	.....	.....	23.00	.....	.....	.....	.....
High Protein Meals	.....	.....													
Linseed	47.75	.....	48.20	46.40	46.00	.....	.....	.....	45.00	45.00	43.00	47.50	47.60	49.00	43.00
Cottonseed (41%)	52.75	.....	50.00	49.00	.....	.....	.....	44.00	47.50	48.00	48.50	46.00	.....	.....	.....
Cottonseed (36%)	48.00	.....	46.50	45.00	.....	37.00	.....	39.00	.....	44.00	45.75	43.50	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	50.00	50.00	50.00	50.00	.....	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	30.50	.....	.....	26.75	26.50	25.50	.....	25.50	24.50	22.50	32.00
Gluten feed	.....	.....	43.50	41.30	43.75	.....	.....	.....	40.30	37.40	40.50	.....	.....	.....	.....
Hominy feed (white)	45.50	.....	44.25	.....	41.25	42.00	.....	.....	42.00	38.50		37.00	40.00	.....	.....
Hominy feed (y'llow)	.....	.....	43.50	.....	40.75	42.00	.....	.....	42.00	37.50	39.50	.....	40.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	40.00	.....	37.00	.....	.....	.....	43.00
Dried Beet pulp	.....	.....	.....	.....	39.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.00



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Indiana State Holstein Sale

At the Indiana State Holstein Sale held June 26, at Crown Point, 51 head were sold, 7 males and 44 females at an average price of $156.60, a total of $7,986. The twelve-month-old bull calf, Veeman Matador Prospect, consigned by Joe H. Hill Company and bought by Lyman Conquest of Indiana for $315, topped the sale. The top price for a female was paid by C. W. Newman, Indiana, for a five-year-old cow, Alfaknolls Calilac Creamelle, consigned by Herman C. Homfeld, a straight type cow heavy in calf by the forty-pound bull, Winterthur Sadie Vale Dosegis.

The outstanding fact that buyers were willing to pay good prices for type and condition but not for records and production makes me ask the question, "Are we on the right track to make money out of dairying?" While the prices were low for the quality of the animals sold, considering the slow demand and the low price for milk and the poor prospect for a corn crop, the consignors are very well satisfied.

The settlements this year were a decided improvement over the state sale held last year at South Bend when we received 20 per cent in cash and 80 per cent in notes—some of them slow notes at that. This year we received 82 per cent in cash and 18 per cent in notes.—C. W. NEWMAN, President The Indiana Holstein-Friesian Ass'n.

Cattle Plague Subsides

The suppression of foot and mouth disease in California has assumed a condition of watchful waiting, the United States Department of Agriculture announced in a statement issued July 21. No new infection had appeared within five days before that time but the state and federal veterinarians are making inspections constantly and are ready to cope with any new flare-up that may occur. The last two cases of foot and mouth disease occurred among cattle in Tuolumne County which is a rough, mountainous region. The diseased cattle were killed promptly and others running on the same range—and therefore exposed—are rapidly being gathered up by range riders for slaughter.

U. S. Exhibit at Dairy Cattle Congress

Chief among the many educational exhibits which will be made at the Fifteenth Annual Dairy Cattle Congress September 22 to 28, Waterloo, Iowa, will be the extensive one made by the Bureau of Dairying, United States Department of Agriculture. Joseph W. Hincox, exhibit specialist of the Department of Agriculture, advises that the construction of the exhibit is completed and that it is one of the most attractive and educational that his department has produced.

The exhibit is grouped in units and treats the following subjects: Better Dairy Cattle; Cow Testing Associations; Dairy Cattle Breeding; Live Stock Improvements; Feeding Dairy Cows; Cost of Milk Production; Diseases of Dairy Cattle; Milk for Children; Clean Milk; Butter Inspection Service; Marketing Organizations; and Package Standardization.—Dairy Cattle Congress.

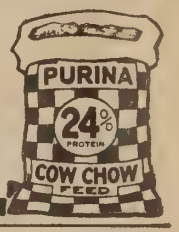
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Is that fine sense which men call Courtesy!
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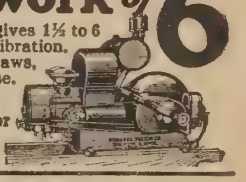


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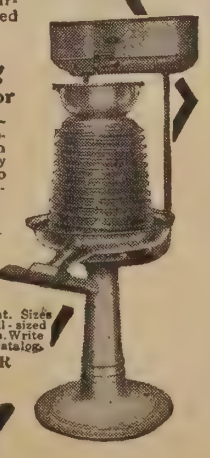
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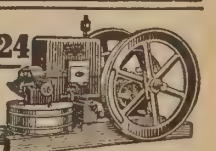


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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Thousand Club Members Enjoy College Hospitality

Coming by auto, train, bus, and even by bicycle, one thousand and one New York Juniors and their leaders invaded the agricultural campus, Cornell University at Ithaca, for three glorious days, June 25-26-27. The attendance broke all former records, nearly doubling that of last year.

The first afternoon was spent sightseeing followed by a campfire supper in one of the gorges which crosses the Cornell campus. Around 30 fires the thousand youthful guests of the College, with their leaders, were given a "real feed". Weiners were roasted over the fires and were accompanied on the menu by rolls, cabbage salad, cocoa, cookies, ice cream, and oranges. When all were filled, a huge campfire was lighted and the whole gathering assembled to listen to the splendid address of welcome by Dean A. R. Mann, who spoke on the fifth H in club work—Habits.

Subject Matter Demonstrations

Thursday forenoon the college teachers gave subject matter demonstrations for the boys and girls. Divided into six groups the boys received instruction in gardening, potato and corn growing, poultry raising, rope splicing and knots, dairy cattle judging, and the judging of sheep and swine. Girls learned about canning and about food selection from the home economics specialists. At noon they were given opportunity to practice what they had learned about the latter topic in the home economics cafeteria. Each girl selected her luncheon in the regular manner and then her tray was scored by competent persons using the regular food-selection score card. After lunch a half hour was spent in listening to the huge pipe organ in Bailey Hall.



A PART OF THE GAY CROWD OF CLUB MEMBERS AND LEADERS WHO ATTENDED NEW YORK'S JUNIOR FIELD DAYS

Under the direction of Daniel Chase, State Supervisor of Physical Education, the afternoon's athletic program started off with a parade about the athletic field. Each county group had its banner and outdid itself to make a real showing. Then followed a track meet of fourteen events, for girls and boys. Every event was filled to the limit with contestants and not a protest was heard regarding any of the decisions, many of which were very close and hard to decide on account of the great number competing. Livingston County, with its delegation of 12 girls and 21 boys, won the trophy banner for the track meet with a total of 18 points.

A baseball tournament occupied the remainder of the afternoon. Preliminary contests narrowed the competition down to teams from Onondaga and Wyoming Counties. The final game was played amidst great excitement and was compelled to run extra innings before Onondaga was able to take the lead and win with a 5 to 4 score. One of the rules of the tournament was that each team should have at least two girls as members. Several spectacular plays were carried through by the fairer members of the various teams. Onondaga County won the trophy banner awarded to the winner of the ball tournament.

Candle Service

One of the most impressive parts of the whole two-day program was the candle-lighting ceremony which was conducted by Rufus Stanley, leader of the boys' and girls' work in Chemung County, together with the young folks from that county. Following a much enjoyed program of rhymes by Professor "Bob" Adams, all assembled, county groups together, on the main quadrangle of the university around a central "achievement shrine", lighted by four huge candles, representing the four H's of club achievement. All were provided with candles. With suitable solemn ceremonial each county group sent up a boy and a girl to bring back to them the light of achievement which they gave to each member of the group.

With candles all lighted and everyone standing the "Achievement Light" song by Mr. Stanley was sung and, candles upraised, all repeated the following pledge, "Desiring to follow our motto, 'make the best better', I pledge my head, my heart, my hands and my health to worthy achievement in my home, my county, my state, and my nation." This ceremony proved a most fitting close to the days' activities.

On Friday morning, subject matter demonstrations were continued. The official program closed at noon.

New York. PAUL R. YOUNG.

Attention, Juniors!

How many of you Hoard's Dairyman Juniors are planning to attend your state fair? There are many good times in store for you at these events. If you are now planning to go to the state fair, won't you sit down right away and report this fact to the Junior Editor by writing to him? At the coming state fairs there should be some good old reunions of Hoard's Dairyman Juniors. Let's go!

A County Club Newspaper

"The Clubwork Forward" is the name of a little 4-H club newspaper which has recently made its appearance in Kenosha County, Wis. This bulletin is issued monthly, mimeographed on yellow paper in the county agent's office, and sent to all club members and interested people for the meager price of 12 cents a year, just enough to cover the postage. "The Clubwork Forward" is a regular little magazine, has reporters in each local club, carries news items, has an editorial page, and a department for each project operating in the county. Articles for these departments each month are written by the county leaders and project advisers.

And who do you suppose is the editor of this splendid club house organ? None other than our good friend G. B. Price, Jr., still a very much active club member, state poultry champion for two years, and just elected secretary of the Wisconsin 4-H Club Short Course Association. George is doing a splendid piece of work with his "Clubwork Forward" and we congratulate him most heartily. He is setting a fine example for the rest of us to follow. While there may be many 4-H club papers, and other counties may have their house organs, we have not heard of one where the editor, publisher, subscription manager, and advertising manager are all combined in one person, and that person an active club member who carries this responsibility in addition to his projects and other duties. George is a Hoard's Dairyman Junior.

Thoughtful Thaddeus Says

I heard some good advice the other day from a poultry specialist. He was talking about how to get rid of the mites which are so troublesome to poultry. He said that you could get rid of the mites very successfully by painting the roosts and dropping boards with the oil drained from an automobile. Just simply take a good brush and smear it on, being sure to get it into the cracks.

A Florida Junior Dairyman

"Hard luck" said friends in 1920, when 10-year-old Edward Mitchell of Dade County, Florida, picked a sorry looking heifer from the twenty offered for calf club boys. Edward, now 14, has turned his hard luck into $1,000 of clear profit and the Blue Ribbon Jersey Junior herd of four cows and a young bull.

Edward's first obligation was to pay $150 for his calf club cow, "Genie", through the bank. Edward says, "My cow came fresh about four months after I got her and I sold her heifer calf to Dad for $50. She milked 9,000 pounds that first year. I bought feed of Dad at 3½c a pound and sold milk to him at 7c a pound. I met all my payments at the bank and had some left over that first year."

Edward then invested $175 in a calf club cow and $60 in each of her twin calves. At the next show he won first for best calf club herd, a distinction which he has won in every show since then. Genie took third in the Jersey class. The glory was short lived, however, for the cow and her twin calves caught an infection and died shortly afterwards.

Edward kept Genie's second heifer and she milked 46 pounds in one day in two milkings. Unexpected expense descended on Edward then for his little sister's calf club cow died and Edward agreed to take her calf and pay for the loss of the cow to the extent of $200.

When Fairy, the calf, freshened, Edward kept her daughter. Fairy's milk offset the feed for Genie and Fairy and their two heifers, and Genie's production was spelling profit until a rattlesnake bit her. Edward spent several hours bathing the wound and finally saved the cow after five days of serious sickness.



"GENIE" WAS THE FOUNDATION HEIFER OF EDWARD'S JUNIOR HERD

The pinnacle of Edward's achievement was at the 1922 county fair, when Genie was awarded grand champion over all breeds for aged cow, and she and her daughter were grand champion over all breeds for cow and calf at the fair. He paid for his exhibit with over $100 of prize money. The following year he secured no new stock and in the 1923 fair, Genie was grand champion of her breed. Genie had a bull calf in May 1923 and Edward is raising him to head his herd.

Edward's records are a simple two column chart of each cow showing feed and pounds of milk twice a day. When production is fairly stable he does not always keep a chart. He is now using feed mixed by his father and a bucket of beet pulp with each seven pounds of feed. With Genie nearly dry, he is feeding her four pounds, consisting of 100 parts ground oats, 100 corn meal, 100 wheat bran, and 50 linseed meal.

In May, Edward's milk check was $490 for his three cows. He milks 10 or 12 cows morning and night and helps with general farm work when not in school and says his Dad pays him $1 a day for labor and gives him board and clothes. He has completed his freshman year in the nearest high school, but he and his father plan to buy a car so he can attend the Dade County Agricultural High School about 25 miles away. He anticipates taking his cows to college to pay his expenses.

Florida. E. BISBEE.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Are you troubled with weeds on your farm? How can you get rid of them? In "The Modern Parable of Weeds", in the July 25th issue of Hoard's Dairyman, S. R. Winters has given a few successful methods now being used in the fight against these intruders.

What is a "noxious" weed? The dictionary says that noxious means harmful. A noxious weed may choke out field crops, or it may poison live stock.

Name nine noxious weeds. Morning glory, Canada thistle, sow thistle, dodder, quack grass, garlic, snake root, wild turnip, and wild radish.

Give two methods of fighting Canada thistle. In Rock County, Minnesota, alfalfa is used as a smother crop. After pulverizing the soil thoroughly the alfalfa is sown in early summer. The second season of growth reveals the presence of only a few thistles. The third season generally shows a total absence of this pest. One of the methods used in destroying Canada thistles in Lyon County, Iowa, is to plow the thistle land in early spring and cultivate it throughout the growing season. A cultivated crop is planted the next year.

Tell how Monterey County, California, is fighting morning glory. The most satisfactory results have been obtained by digging holes 18 inches deep and 3 feet apart in the soil and filling each hole with four ounces of carbon bisulphide.

How are weeds being killed in Idaho? Sodium arsenate ("Ussco weed-killer") used in the proportion of 1 part Ussco to 50 parts water is killing dodder completely when applied in the early stages of growth. Two, three, and four applications of sodium arsenate are used to eradicate Canada thistles, and morning glory has been killed by this same treatment to a depth of 24 inches.

How much sweet clover pasture is necessary for one cow for six months? Reports received from 81 farmers in Illinois show that an average of three-fourths of an acre per cow is sufficient sweet clover pasture for six months. (See article "Ever Failing or Never Failing Pasture" by Wilber J. Fraser.)

How should sweet clover pasture be managed to secure the best results? Seed perennial white clover each year in the small grain. In the spring turn the cattle into the second year's crop. About the middle or last of August turn the cows into the new clover in the stubble, using this until the latter part of October. Thus the six months' pasture is partly from new and partly from old clover.

What are the advantages of sweet clover pasture? Because it is deep-rooted, sweet clover stays green and fresh throughout the dry, hot weather when bluegrass pastures burn up. Sweet clover is good milk feed. Cows maintain high milk production while on this kind of pasture.

Junior Letters

Giving Good Care to Calf

Hoard's Dairyman Juniors:—I received your letter today and will answer it before I forget about it.

My calf is a Jersey heifer. When I started in the club work she was exactly 3½ months old. The heifer was from one of my father's cows and I chose her because she looked the best to me. She was of good dairy type and had the best udder development of any of the calves. Her mother was not much for type but was a good eater and producer.

When I began feeding the heifer named Lady I fed her 6 lbs. of milk a feed, and one pound of ground corn and bran mixed. I kept this up for about 3 months and then stopped feeding her milk and fed her about 4 lbs. of bran and ground barley mixed. I fed her up to the time of the fair and then stopped because we could not afford it, much to my regret. I fed her 2 times a day. I didn't take any extra care of her only I brushed her once a day and then about 3 weeks before the fair I put a blanket on her and kept it there for about a week and then she thought she had worn it long enough and I couldn't keep it on her so I brushed her three times a day.

There is nothing better for a farm boy or girl, or any one for that matter than to be in a club and doing club work. If all the boys and girls on the farm belonged to a club, in a few years there would be more ambitious people in the world called farmers to feed the city folks.

Colorado. Leonard Norris.

Mother Does the Chores!

Mother cooks and does the baking,
Mother does the chores;
Mother does the garment making,
Mother does the chores.
Washes, mends, and does the dishes,
Never spends her time on wishes,
And for praise she never fishes,
Mother does the chores.

Father's gone to town today,
Mother does the chores;
All the rest are bent on play,
Mother does the chores.
All are happy, all are free,
Just when they see fit to be,
No ones left at home to see
How mother does the chores.

Children romping off to school,
Mother does the chores;
Happy 'neath the teacher's rule,
Mother does the chores.
Packing up the dinner pails,
With good things she never fails,
Through sunny days and stormy gales
Mother does the chores.

Father comes home late at night,
Mother does the chores;
Children quarrel and sometimes fight,
Mother does the chores.
Mary lets the dishes go,
Goes to town to see a show
With a shining brand new beau,
Mother does the chores.

Mother's always on the job,
Mother does the chores;
Just to please her big son, Bob,
Mother does the chores.
Mother's always just the same,
Always there to take the blame,
Guess perhaps it is a shame
Mother does the chores.

My address is Route 4, Juneau, Wis.
Your everlasting member,
Adela Krainer.

In John Brown's Country

Hoard's Dairyman Juniors:—I am a 12-year-old girl living on a farm about thirty miles west of Kansas City and three miles from the Kaw river.

The Kaw bottom is famous for its potatoes, the main crops being potatoes, alfalfa, and corn, while the upland runs to diversified farming and dairying.

The Co-operative Dairy Association has a station at Eudora that ships whole milk to Kansas City for the retail trade.

The state university at Lawrence is in plain sight of our home. I have three sisters attending the university. There is a total attendance of about four thousand.

On our farm is an old log house that was built by an Indian about 80 years ago. The tradition runs that on the night of Aug. 20, 1863, W. C. Quantril, the Guerilla, on his way to sack Lawrence, stopped at this house and compelled a twelve-year-old boy to accompany him and show him the way, it being a dark night and dense timber all the way.

After their departure the boys' father started on horse back to go around and get ahead of them and notify the people of Lawrence, but in riding at a rapid speed through the timber his horse struck a tree and broke his neck and threw the rider off and also broke his neck.

Near us is the Wakarusa river which was the scene of a good many of John Brown's escapades.

Would be glad to hear from any of the juniors, especially any living in the far West. My address is R. 3, Eudora, Kans.

Agnes Coleman.

Making the Hens' Day Longer

Hoard's Dairyman Juniors:—I am glad to have the privilege of writing to you. I am very much interested in cattle and poultry. We have about six members in our club.

I have set 8 duck eggs and hope to have good success. I have six hens and a rooster. They are Rhode Island Reds. I feed them dry mash, grain, and crockery dishes broken up fine.

There is an electric light in the hen house so at evening they can eat also. I am getting 11 eggs and one of my hens is setting on the duck eggs. I have a clean hen house and good box for them to lay in. They have plenty to eat and to drink. I have not had to use a glass egg to make them lay. I belong to another club also. It is "A Band of Mercy to Dumb Animals".

Massachusetts. Eugene Baldwin.



PICTURES YOU'LL PRIZE

Kodak at the Fair

Fair time means vacation time to you and your family, and that means Kodak pictures as a matter of course. Everybody takes a Kodak on vacation.

You'll make pictures of the picnic along the roadside, of prize stock at the fair grounds, of your own entries in county or state competitions.

Autographic Kodaks $6.50 up. "Kodak on the Farm," just off the press, is free at your dealer's or from us.

Eastman Kodak Company, Rochester, N.Y.

The WINDMILL with a RECORD



The Auto-oiled Aermotor has behind it 9 years of wonderful success. It is not an experiment.

The Auto-oiled Aermotor is the Genuine Self-Oiling Windmill, with every moving part fully and constantly oiled.

Oil an Aermotor once a year and it is always oiled. It never makes a squeak.

The double gears run in oil in a tightly enclosed gear case. They are always flooded with oil and are protected from dust and sleet.

The Auto-oiled Aermotor is so thoroughly oiled that it runs in the slightest breeze. It gives more service for the money invested than any other piece of machinery on the farm.

You do not have to experiment to get a windmill that will run a year with one oiling. The Auto-oiled Aermotor is a tried and perfected machine.

Our large factory and our superior equipment enable us to produce economically and accurately. Every purchaser of an Aermotor gets the benefit from quantity production. The Aermotor is made by a responsible company which has specialized in steel windmills for 36 years.

AERMOTOR CO. Chicago Kansas City Dallas Minneapolis Des Moines Oakland



Send No Money

FOR THIS DURO SEAMLESS SANITARY MILK PAIL

Bottom and sides are one piece. Both interior and exterior surfaces are perfectly smooth, so there are no seams or crevices to harbor bacteria. The Duro Pail is made of **heavy gauge steel** heavily tinned, and will give a lifetime of service.

The Duro Seamless Hooded Milk Pail is strongly recommended by dairy authorities, for its use prevents dust and dirt from falling into the milk pail during milking.

Duro Pails are made in 14-qt. size only, and weigh 7 lbs. each. They may be supplied without hood when so ordered.

Send your name and address today and the Duro Sanitary Seamless Hooded Milk Pail will be shipped at once. When delivered pay the postman $2.25, (and a few cents extra for postage). Money refunded if at the end of 10 days you are not thoroughly satisfied with your purchase.

Big Free Milk Dealer and Dairymen's Catalogue on request

THE CREAMERY PACKAGE MFG. COMPANY
68 W. Kinzie Street, Chicago



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

Proven Ormsby Johanna Holstein show bull; dam has 902 lbs. butter in Sub. B. Federal accredited. A bargain. GEORGE A. HOWARD, Dousman, Wisconsin. 2-3

Fine Herd Registered Holsteins to place on shares. FRED HARRIMAN, Appleton, Wis. 2-3

Holstein springers and fresh cows. W. STRAUSS, Route 5, Watertown, Wis. 3-4

For Sale, Guernseys—Our Junior Herd Bull; sire, Glenwood Champion; dam, daughter Langwater Demonstrater—nothing better, $300.00. Also two year old grandson Beauty Eagle, $150.00. Also eight months show calf, $100.00. Inquire SUPERINTENDENT, La Belle Knoll Farm, Oconomowoc, Wis. 2-2

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls. A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

May Rose Guernsey bull for sale. 4 months old. Dam, 708 lbs. fat. Sire's dam, 909 lbs. fat. Other bulls older, nearly as good. HOMER RUNDELL, Livingston, Wis. 23-spl

For Sale—Twenty-seven grade Guernseys, two year old and yearling heifers. DUTTON & COIT, Galesville, Wisconsin. 3-3

For Sale—Registered Guernseys, male and female, of May Rose Bell Buoy of Linda Vista breeding, who has 32 A. R. daughters with records up to 769 lbs. fat. Federal accredied herd. O. R. SCHWALEN, Roberts, Wis. 3-*

Choice, well grown, well marked Guernsey bull for sale. Out of cow now on test. Price $100. Write for breeding, etc. C. H. HULBURT, Waukesha, Wis.

Conkles Dairy Farm offers one carload of Registered Jersey bred heifers, T. B. tested, will freshen in fall and early winter. This is a good lot at a reasonable figure. CONKLE'S DAIRY FARM, Layland, Ohio. 1-4

Forty-eight Registered Jerseys—Good size and type are consigned to LaCrosse County Jersey Breeders' Association to sell cheap. Owner will rent farm. JOS G. GREENE, Bangor, Wis. 3-3

Sophie Tormentor Jersey Bulls, good type and well bred, cheap. JOS. G. GREENE, Bangor, Wis. 3-2

Registered Jersey Heifer—Fresh this fall. Bargain. "RETTSTATT", Bethesda, Md.

Hereford Cattle for Sale. 163 yearlings, 186 two year olds Sell one load or all. A. C. WISECORUER, Fairfield, Iowa. 1-3

STOCK WANTED

Wanted—Carload of Guernsey cows. C. SIDESINGER, Abilene, Kansas.

Wanted—Good aged Jersey herd bull. ELMER C. YEITER, Lowell, Mich.

SWINE

Hampshire Hogs for Sale—The Hampshire hog is at home in the dairy comunity as they are good rustlers. We can give you a good start with a small investment. E. G. LEWIS, Media, Ill. 24-8

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Pure-bred Airedales. Extra fine pups. FRED SCHROETER, Grafton, Wis. 26-4

POULTRY

Pullets—Ancona and Single Comb White Leghorn. From high producing stock, guaranteed to be right. FERNDALE FARMS, Boyd, Wis.

SQUABS

Make Money, raise squabs. 100 pair squab breeders, large selected Homers, all mated and working. Guaranteed. $2.40 per pair. W. P. McDOWELL, 2300 Woodridge St., N. E., Washington, D. C.

SEEDS AND PLANTS

Your Seed Will Sell Rapidly if you advertise it in these columns. Rate is ten cents per word including address. HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 26-*

FEEDS

Soy Beans for Feed. Many Agricultural Colleges recommend soy beans to replace oil meal for dairy cows We offer a limited amount of ground or unground at bargain prices. E. G. LEWIS SEED CO., Media, Ill. 24-8

Alfalfa, first cutting, $17. Must make room by August 10. HIRAM MICHELS, Peebles, Wis. 2-2

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

MACHINERY

Wanted—One good, used milk bottle filler for quarts, pints and half pints. Description, price. J. BERT PHILLIPS, care Campbell Bros. Co., Danville, Illinois.

For Sale—2 unit De Laval Milker, Pulso pump and relays, everything complete, never been used; No. 98 De Laval Clarifier; 100 gallon Manning Pasteurizer; No. 3 Eureka steam boiler; steam turbine bottle washer with wooden washing vat; No. 4 Wright automatic bottle filler; 20-10 gallon cream cans; 1 bottle Torsion balance cream test scales, new; Friday butter printer with 3 30-lb. vats; 60 gal. power butter churn; 1½ horse, 32-volt electric motor with rheostat. This machinery is all in A-1 shape. WM. WEIBLE, Box 391, Chappell, Nebraska. 6-*

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 25-10

For Sale—One two end bottle filler and a quantity of 2 inch insulation cork. HENRY JUERGENS, Hartford, Wis. 26-4

For Sale—Victor Jr. No-2 power churn and No-3 Eureka boiler, almost new. WALTER GERWIG, Forreston, Illinois.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

TOBACCO

Homespun Tobacco: Chewing, five pounds $1.75; ten, $3.00; smoking, five pounds $1.25; ten, $2.00; pipe free, pay when received. Tobacco Guarantee. CO-OPERATIVE FARMERS' Paducah, Ky. 1-4

BUTTERMAKERS

Wanted—A buttermaker. Must be industrious, and clean character. State price and experience in first letter. E. G. LEWIS SEED CO., Media, Ill. 26-4

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Pictorial Postcards to Order. 1000 for $10. OFFSET GRAVURE CORP., 351 West 52nd St., New York. 1-4

For Sale—Pet coyote two months old. HARVEY HOLMES, Pocatello, Idaho.

FARMS FOR SALE

Farm land prices are low and terms easier than they will ever be again in the Northwest. Low round trip homeseeker and summer tourist tickets to Minnesota, North Dakota, Montana, Washington and Oregon. Free descriptive book. E. C. LEEDY, Great Northern Railway, Dept. 82, St. Paul, Minn. 23-*

Minnesota offers opportunities to farmers. Send for free map and literature. O. H. SMITH, Commissioner of Immigration, Dept. 676 State Capitol, St. Paul, Minnesota. 25-9

Wyoming—Colorado Irrigated Land. Priced to sell. Attractive terms. Ideal location. WHEELER REALTY CO., Bloomington, Ill. 1-4

200 acre stock and sheep farm, well improved and equipped. Good buildings. 3 miles from Mille Lacs Lake. $75.00 an acre. Your own terms. FIRST NATIONAL BANK, Milaca, Minnesota. 1-4

For Sale or Rent—Possession January 1st. Fully equipped Dairy Farm. Herd of pure-bred and grade Guernseys. Only dairy furnishing milk to town of over four thousand people. Sole reason for selling have not time to properly look after. Our milk selling 15c to 20c per quart. Address Owner, D. L. TUGGLE, Blackstone, Virginia. 2-2

Lands for Sale in famous Swan River Valley. Low altitude, long sunshine, abundant precipitation. Ideal soils. No drifting winds. Write BETTES CO., Swan River, Manitoba. 2-2

For Sale—195 acre stock or grain farm in Butler County. 7 room house, barn for 20 cows, cement silo 12x40; land number one first and second bottom, excellent for corn and alfalfa, wonderful blue grass pasture, all fields watered with spring or fresh running water. Price in keeping with times, liberal terms. J. F. KYGER, 116 High St., Hamilton, Ohio. 2-2

For Sale—Six hundred acre dairy farm. Good house and barn, fine water. Near a live town and Carnation Milk Plant. Price and terms to suit. Address WINSLOW B. ROSS, Cambridge Springs, Pa. 2-4

Official facts on Wisconsin farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis. 2-4

Pennington County, Minnesota. Come into the best dairy and diversified farming section in the state; fine black loam with a clay subsoil, heavy in lime. The natural home of alfalfa. Write to FARMERS' AND MERCHANTS' STATE BANK OF THIEF RIVER FALLS, Minnesota, for information regarding some real snaps as to value and terms. 2-4

Found. In Wisconsin a great alfalfa, corn, potato, clover and dairy country. Shawano, Oconto and adjoining counties. Send for free picture catalog of farms. Deal direct, no commissions. WISCONSIN FARMERS' & HOMESEEKERS' SERVICE BUREAU, Marshfield, Wis.

Register and Secure a Farm. Hundreds have already started on our wonderful colonization plan. Come and see their fine new homes. We will also help you start in Wisconsin. You can get 40 or 80 acre dairy farm for only $100 deposit and balance in 10 years. Close to big towns; Many neighbors. Best, richest, gently rolling Wisconsin clay loam. Only $2000 for 40 with nice house, good barn, best milk cows. A greater opportunity than a U. S. Homestead. Particulars free. NATIONAL LAND COLONIZING CO., Dept. F 7, Madison, Wis. 3-3

FARMS FOR SALE

For Sale—Two farms, one of 150 acres, one of 120 acres, fully improved dairy farms in Chippewa County. Price reasonable. For prices, description, and terms address C. L. CHRISTIANSON, Executor, Bloomer, Wisconsin. 3-3

Exceptional Dairy Farm; 80 acres cleared; silo; deep 6 inch well; Bermuda pasture; fruit and pecan trees; all fenced; large 5 room screened house. Adjoins town. $5000.00 cash, worth double. BARROWS, Tallahassee, Florida.

FARMS WANTED

Wanted—Large farm with fair improvements and stocked. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

FOR RENT

Good 98 acre farm for cash rent, being equipped for 12 cow dairy. Investigate this. J. S. VORIS, Franklin, Indiana.



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, willing to accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

High Class Dairy Workers Wanted; barn and milk room. Good wages paid good men. Booze drinkers need not apply and the use of tobacco in any form prohibited while at work. If you are a good worker, clean and intelligent, looking for a permanant place, write us. HAPPY FARMS DAIRY, P. O. Box 139, Miami, Florida. 19-*

Get U. S. Government Life Jobs. Men—women—18 up. $95 to $250 month. Steady work. Paid vacation. Short hours. Common education usually sufficient. Pull unnecessary. List positions obtainable and specimen questions—free. FRANKLIN INSTITUTE, Dept. N108, Rochester, N. Y. 26-4

Wanted—Man and wife on small dairy and poultry farm, near Frederick, Maryland. Also helper. Wife to assist in house. All modern equipment on farm and in house. Apply stating experience, salary, and reference to BOX 209, care Hoard's Dairyman. 2-2

Wanted—Working herdsman with experience in making A. R. records and clean milk, to take charge of Guernsey herd. Married man preferred. Reference required. M. T. PHILLIPS, Pomeroy, Pa. 2-3

Wanted—Men, of clean habits, for dairy barns; also dairyman experienced in pasteurizing. Barn men must be good milkers. Wages $50 per month. Good chance for advancement. Excellent living conditions. RO-KER FARMS, LaSalle, Ill.

Wanted—A maid for general housework. Washing. All modern improvements. Family, seven. Salary $40 per month. Apply MRS. C. H. KRAFT, 1236 Greenwood Ave., Wilmette, Ill.

Wanted—Married dairyman, dry hand milker. Grade A milk. House, garden, milk, $75 month. Wonderful climate. 2½ miles city. 3 miles ocean. Give experience, reference. B. T. HOPKINS, Lake Worth, Fla.

Single man wanted about August 15 to work on dairy farm. Good milker and willing to work. Good habits. State experience, and wages wanted in first letter. J. E. PETERSON, Webster, Wis.

Wanted—Cow tester with experience who can hustle and who understands feeding cattle. No beginners. Good wages for the right man. H. R. NOBLE, County Agent, Stevens Point, Wis. 3-3

Male Help Wanted—Firemen, Brakeman, for railroads nearest their homes—everywhere; beginners $156—$250 monthly (which position?) RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 3-5

Wanted—Two experienced men to work in wash and bottling room. One to make lactic acid, with a small amount of churning. Must be clean. Good wages for right man. KEYWORTH'S DAIRY, P. O. Box 476, Houston, Texas.

Wanted—Single man to care for small herd of Guernseys. Permanent position for right man. Write for particulars. Give references, experience and wages for first year. No field work. R. W. KANN, Foxholm, N. D.

Wanted—First class married man, preferably no children. Care of very substantial summer home and small, registered Holstein herd; 35 acres. DR. COLEMAN BUFORD, Elizabeth, Ill.

Wanted—Married man (no family). Man for general farm work, wife to do house work, on dairy farm. State ages, experience and wages. GROVER KULL, Genoa City, Wis. 3-2

Wanted at Once—Reliable single man on dairy. Farm and test cows. Apply M. E. BASEHOAR, Littlestown, Pa. 3-2

POSITION WANTED

Farm Foreman open for position immediately on account of death of employer. Married, life experience on large farms. Best of reference. Address BOX 220, care Hoard's Dairyman. 2-2

Experienced milk room worker, but cannot test. Single. $60 per month. Address BOX 221, care Hoard's Dairyman.

Experienced herdsman, with agricultural training, wants position in large pure-bred herd in Oregon or Washington. A-1 feeder, milker and calf raiser. Knowledge of A. R. and A. R. O. work as well as fitting and showing. Experience with mechanical milkers and producing A. A. milk for retailing. No proposition too big. Very best of references. Swiss, age 28, single. State institution preferred. Free after August 1. Give salary and particulars in first letter. J. U. KOMINOTH, 1319-46th East Salmon St., Portland, Oregon.

Position Wanted—Single man, Hollander, wants position on large dairy farm. Write wages and conditions in first letter. Address BOX 222, care Hoard's Dairyman.

Wanted by married Hollander, small family, position on farm. Good milker and farm hand. Reference. SAM GRASFSMA, 264 West 106th St., Chicago, Illinois.

Superintendent, 40, college training, 15 years successful, practical experience farm and estate management, desires position. A-1 reference. Address BOX 225, care Hoard's Dairyman. 3-3

Manager, college graduate, single, experience in every phase of grain, stock, dairy farming, gardening, marketing, wants to change. Specialty breeding and development of dairy cattle. Only large, modern proposition considered. Salary or share basis. Please write BOX 224, care Hoard's Dairyman. 3-3

Married man, age 30, experienced with pure-bred cattle, desires position as manager Holstein dairy or stock farm. Best of references. Address BOX 223, care Hoard's Dairyman. 3-2

Virginia Butter Champions

Delicious Ormsby, owned by H. S. Seward, now is the new state leader for ten months' production as a junior three-year-old with a record of 16,060.7 pounds milk, 607.11 lbs. butterfat—equal to 758.8 pounds butter. For ten months' production as a junior two-year-old, among cows of her age, Chip Elms Hengerveld Konigen in the same herd holds the state's highest record with 13,285.8 pounds milk and 610.6 pounds butter.—Holstein-Friesian Ass'n of America.

THE STATE OF WISCONSIN
Presents Its Annual

STATE FAIR
MILWAUKEE
(74th Year)

Aug. 25, 26, 27, 28, 29 and 30
SIX DAYS; SIX NIGHTS

50 CENTS DAY OR NIGHT
Automobiles Free
FREE PARKING SPACE for 20,000

SPECIAL RATES ALL RAILWAYS

LEGION DAY
MONDAY, AUGUST 25.
Wis. Press Day
All Wisconsin School Children will be admitted free as guests of State.

FUN ON THE FARM
John M. Kelley's Sensational Farm Spectacle with Trained Dairy Cattle and Horses, Mechanical Cow.
BAREBACK RIDING BULL
STATUE POSING BULL
KELLEY'S "GREEN BULL"
and 20 Star Vaudeville Acts.

SIX NIGHTS!
$20,000 Fireworks Spectacle
TOKYO
WHITE HUSSAR SINGING BAND
20 OTHER BANDS and Orchestras

New $250,000.00 Amusement Park
Dancing Pavilion, Carrousel, Aerial Swing, Whip, Half-mile Coaster, Ferris Wheel, Etc., Etc.

THE FARM ON PARADE
$130,000.00 in Prizes for
Cattle, Horses, Sheep, Swine, Poultry, Agricultural, Horticultural, Apiary Products; YEAR'S ROUND-UP of Badger State Boys' and Girls' Club Activities, and
Nation's Best State Dairy Show

HARNESS RACING!
MONDAY, WEDNESDAY, THURSDAY, FRIDAY—1st Race at 1 p. m.
$5,000 MATCH RACE FRIDAY
Single G, Sir Roch, Margaret Dillon.

AUTO RACING!
TUESDAY and SATURDAY 2 p. m.
World's Fastest Dirt Track Drivers and cars.

HORSE SHOW!
STOCK PAVILION — MONDAY, TUESDAY, WEDNESDAY, THURSDAY and FRIDAY NIGHTS 8 p. m.

SEE THE 1925 MODELS
AUTOMOBILES AND TRUCKS

New Expo Building
$150,000 Structure, Largest on any Fairground in the U. S., to house a Manufacturers' Exposition.

MAMMOTH SHOW OF TRACTORS and FARM MACHINERY

THE WISCONSIN STATE FAIR
"Educates, Inspires, Entertains on Biggest Possible Scale."

Friendly Talks for Farm Folks

Orval Holcomb used to go fishing so much that he was the despair of his wife and the neighbors, who marveled that Orval's farm got along without him as well as it did. But finally things came to such a pass in the spring of the year that Mrs. Holcomb decided to give her spouse a lesson he'd remember. So she broke up all four of his pet fishing-poles into stakes for the tomato vines, and when Orval went to get his paraphernalia in pursuit of his favorite outdoor sport, he was told to go and fish in the truck patch for a change and see if he couldn't catch something there beside suckers. Strange as it may seem, Orval took his medicine in fairly good humor and that year his wife had the time of her life bragging up their extra fine tomatoes. Whether it was the bamboo stakes or the hoeing the vegetables got as per Orval's former piscatorial schedule—at any rate the Holcombs have lots better and more truck to market than formerly. But as Mrs. Holcomb admits, not all men might be weaned so easily from their unprofitable hobbies.

⚜

We were delighted to read of the progressive locomotive out near Chicago which did its duties on the fired-up milk in its boiler. We have always predicted that some day the discovery would be made that milk in place of gas for the busy automobile would revolutionize the dairy industry. But meanwhile, until our locomotives and horseless carriages generally take up the food-fuel, we imagine the harassed pedestrian would think that heaven on earth were here if the drivers of the latter vehicles would only confine themselves to filling the human engine with cow brew instead of bootlegger's embalming fluid.

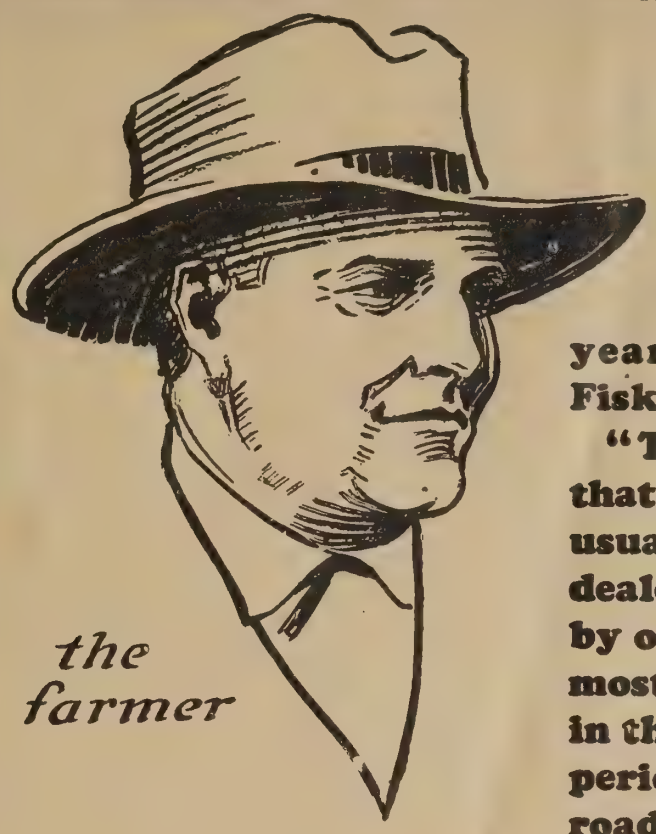
⚜

You can't make us believe that the much maligned flapper isn't just as strong for one thing—ice cream—as ever she was, before we heard so much about pocket flasks and ladies' cigarettes. When it comes to eating ice cream Americans, young or old, take a back seat for nobody. And a country whose young people love ice cream to the extent of numberless sundaes and cones a day hasn't gone quite yet to the everlasting bow-bows via its adolescent boys and girls.

⚜

Speaking of ice cream, did you try for the big prize offered recently by the Associated Ice Cream Manufacturers of America? You recall that a slogan is to be purchased on the order of Ivory Soap—It Floats; Have You a Little Fairy in Your Home?; and a million others which have become household words everywhere. When we receive the first prize, which always seems a foregone conclusion until the other fellow gets it, we expect to buy a very nifty closed car with it, in case our husband doesn't beat us to cashing said check first and dispensing it for an equally valuable herd sire he has in mind. Of course there is an exceedingly remote possibility that we may not win this valuable prize. But if we do not, it will be for the usual reason—judges of such contests are invariably blind to real merit when they see it and so refuse to hand us the many thousand dollars a year we ought to earn if all such efforts of ours were properly rewarded. You have probably noticed this partiality and blindness on the parts of contest committees yourself—if you are a consistent entrant like us to all such brain-breaking businesses.

New York. HELEN S. K. WILLCOX.



"A GOOD MANY cars have come into our part of the country during the past two years equipped with Fisk tires.

"Their owners tell me that they are getting unusual service from them; dealers say they are made by one of the largest and most reputable concerns in the business; from experience I know for our roads it is the best tire I have ever used."

FISK CORD TIRES



Time to Re-tire
Get a Fisk
TRADE MARK REG. U. S. PAT. OFF.

An Ohio Guernsey Record

HOARD'S DAIRYMAN:—Janet of Prospect Hill, a Guernsey cow owned by Mrs. Alice R. G. Dalby of Ohio, has recently had her third Advanced Registry Record approved by the Guernsey Cattle Club, making her state champion and giving her sixth



JANET OF PROSPECT HILL
OWNED BY MRS. ALICE R. G. DALBY, OHIO

place among the ten national leaders of her class.

The comment is frequently heard that making a yearly record subjects a cow to too great a strain. These three successive yearly records which Janet has made is evidence that these tests develop dairy qualities, Mrs. Dalby says.

With her first record, made as a three-year-old on two milkings a day, she was credited with 8,150.1 pounds milk and 401.99 pounds fat. The following year she produced 13,456.9 pounds milk and 664.13 pounds fat, while her third record made at the age of five years and 254 days gave her a credit for 18,537 pounds milk and 828 pounds fat, which means an average daily production of 23.7 quarts milk and 2.6 pounds butter per day for 365 days.

This cow has proven an unusual persistent milker. She did not go dry between her first and second yearly records, nor again at the completion of her last record before freshening. She milked 9 gallons in one day and on completion of her last record she was milking over 4 gallons a day.

She has proven herself a reproducer as well as a producer. Her last calf, carried during 266 days of her record, is a male sired by Langwater Buccaneer, a May Rose linebred sire. Janet has a two-year-old heifer just starting on her Advanced Registry test, now milking five gallons a day.

Janet is the daughter of Mrs. Dalby's first Guernsey cow, Beauty of Chestnut Hill. These creditable records have justified her original selection of a foundation cow.

The Prospect Hill Guernsey herd is Federal Accredited and Mrs. Dalby is marketing a superior quality of whole milk. She has recently received a permit to use the American Guernsey Cattle Club "Copyrighted Label" which is granted only to producers of Guernsey milk conforming to strict sanitary regulations and operating under the supervision of the state and national organizations.

Ohio. E. R. RAYMOND.

Cattlemen's Conference

A National Dairy Cattlemen's Conference will be one of the new things for dairy farmers at the National Dairy Exposition to be held at Milwaukee, Wisconsin, September 27th to October 4th. This conference will commence at 10 o'clock on the morning of October 1st in the Woman's Building on the Exposition Grounds. Every farmer and buyer of dairy cattle in the country may sit in at the first conference although delegates will be sent by many states.

The big work of the Conference will be to work out rules and regulations to govern sales of dairy cattle and to formulate an organization to safeguard the interest of buyer and seller on the highest line of business integrity.

The sword wounds the body, but words wound the soul.—Proverbs of Arabia.

SALE ANNOUNCEMENTS

Sept. 10—Holstein Dispersal Sale. J. C. Kostman, Bruce, Wis. W. H. Krause, Sale Mgr., Thorp, Wis.

Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades. Dassel, Minn. A. B. Rayburn Mgr.

Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.

Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual 'Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.

Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.

Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.



LUCY THOMPSON

The Girl's Room

If you want to have some fun yourself and at the same time raise your young daughter to the seventh heaven of bliss, just map out a plan—and then execute it—for fixing up her room.

I have some friends who did this at a total cost of $17 and the result was an exquisite room and a 14-year-old daughter as happy as a princess in a fairy tale. Of course they had some of the things to start with but they developed the room around a small, old fashioned bed which they bought for two dollars and enameled ivory-white.

The style of the bed just seemed to call for rag rugs, ruffled curtains, and that sort of thing and they decided to make things green and white, always a charming color combination for a young girl. I never saw a young birch tree in spring with its lovely white branches and delicate green leaves that it doesn't remind me of a slender, beautiful young girl dressed for her first party.

The curtains of this room were of cheap but effective scrim with a narrow green ruffle of organdie down the middle and across the ends. The bed cover was the same with a deep ruffle all the way around reaching nearly to the floor. This ruffle was finished with an inch band of the green.

An old fashioned wash stand made a modern dressing table. The father cut away the lower part in front leaving only the top drawer. This made a space for the knees of the person sitting in front of it. The same enamel used on the bed was used for this and for a kitchen chair that was to stand in front of it as well as for the frame of the mirror hanging over it. A very full, white curtain hung around the sides and front. This had the same inch band of green as did the bed cover. It is best to have a split down the front of the curtain so as to be able to push it back. Sewed to brass rings (18 for a nickle at the five-and-ten) and suspended from a brass rod, it slips very easily.

Every girl would love to have her own desk but a substitute will please her nearly as well. A small painted kitchen table with a drawer but no leaves makes an admirable desk and a pair of home-made book ends painted a contrasting color will hold a convenient row of books across the back and be ornamental as well.

If the room is large and you have an extra sanitary cot it makes a pretty day couch and saves a lot of wear and tear on the regular bed. A green burlap cover does not show dirt readily and will stand a lot of romping.

If you want to make a really lovely cover for the couch, get two shades of green sateen using the lighter for the top and the darker for a valance and for a few pillows. You can make a charming tie-up by using some of the green sateen for side drapes at the windows letting them hang straight to the bottom of the sill or a little below.

For the floor, black paint, well dried and waxed, makes a fine background for green and white rag rugs, braided.

In buying, it is well to remember that there are blue greens and yellow greens and that they are decidedly different and inharmonious.

Some persons feel that the minute they redecorate a room they must put up pictures regardless of whether or not they have any that are suitable. This is particularly a mistake in the room of a child as his mind is still in the making and is easily influenced. No pictures should ever find their way into his room simply because they are not suitable anywhere else.

Several of our monthly magazines are using copies of famous paintings for covers or illustrations nowdays. These are richly colored and are really very decorative. I have three of them in plain frames that I have picked up from time to time at sales for a quarter. You can do the framing of these in five minutes and when you get tired of one you can put in another. The story of artist and painting goes with these pictures and a child once told it interestingly, will remember it always.

A separate room for each child is of value as it gives a good chance for training in housekeeping. This applies to boys as well as girls. A great many tired wives would be rested if their husbands, as little boys, had been taught to be orderly. It is impossible to teach a child to put his things away if he has no place to put them but provide him with a place and then teach him at the point of the paddle to use it. Your daughters-in-law (or sons-in-law, as the case may be) will rise up and call you blessed.

Being constantly with people is hard on any disposition and that is the greatest argument in favor of having rooms where we can go and be alone; not to mope and be morbid in but just for collecting our thoughts and inviting our souls. Children need them as well as grown-ups.

The Kitchen Pendulum Swings Back

When grandmother built her kitchen it was as large as the whole of a modern city apartment and she walked miles getting her meals. She also had it finished with a good practical color with the result that the whole effect was rather dull.

After awhile we got the idea of sanitation and we all decided that we ought to have kitchens all done out in white like a hospital in order to be clean. We tried this for awhile and found out that to keep them white meant that we spent about half our time working on it.

Now the pendulum has swung back, as it nearly always does, to a sensible medium and we have kitchens that are lovely to look at without being woman killers. These have neutral tinted walls—not drab—in good clear tones of gray, green, or tan and with linoleum and curtains or some painted furniture to match, they are a joy to have.

If you are building this year do spunk up and have the kitchen just the way you want it. Most of us don't because we are afraid the men will think we are disagreeable. The time-honored argument is always the height of the kitchen sink and if you have ever broken your back over a low one, you will never give up till the new one is the proper height, no matter what the plumber says.

The newest little bride I know has plain yellow gingham curtains at her kitchen windows with a two and a half inch white ruffle around them. Her linoleum is blue and yellow, her mixing bowls are yellow, her walls are tan, and her woodwork is just plain varnished pine. It is an old house but she has made it a lovely place. We older women sometimes smile at a bride's attention to small things like having her bread bowls match her curtains, for instance, but such things cost no more, so why not have them? The small things, I often think, have a greater effect on our lives than the big ones and I believe we would all be better off if we insisted more on having them right.

Summer Plum Pudding

An easy dessert for a hot day is this pudding with a gelatine foundation. Prepare one package of lemon jello according to directions or else use a corresponding quantity of gelatine.

Add to this one cup of seedless raisins that have been washed, one cup of apple diced, and one cup of grape nuts. No sugar is needed unless you like it very sweet. When it is set, serve it with whipped cream.

You can make this still richer by beating in a cup of cream, whipped, just before the gelatine has set and then allowing it to become firm. When the cream is put in the pudding it may then be served with custard on top or with more whipped cream.

Buy soap in large enough quantities and thus take advantage of wholesale prices. A hundred cakes will not last too long if stored in the attic or any dry place, with the cakes piled so that air can circulate around them.

The clothes line is a rosary
Of household help and care;
Each little saint the mother loves
Is represented there.

And when across her garden plot
She walks with thoughtful heed,
I should not wonder if she fold
Each garment for a bead.

A stranger passing I salute
The household in its wear,
And smile to think how near to kin
Are love and toil and prayer.
Julia Ward Howe.

Fashion Magazine

From the front cover of our Spring and Summer Fashion Magazine right on through the book, you will see all of the styles which will be popular during the coming season. Styles for morning and afternoon wear as well as those needed for the more formal occasions. And cute styles for the kiddies. There are dressmaking lessons for the beginner, and charming styles which can be made in a couple of hours even by one who is a novice with the needle. Also photos of the most popular Broadway, New York, actresses. So settle your dress problems by sending 10c today for our new Fashion Magazine. You'll save dollars by doing so. Address Fashion Department, Hoard's Dairyman, Fort Atkinson.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Miscellaneous Fashions



No. 1987—Becoming Style for the Large Woman. Cut in sizes 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 3⅞ yards of 40-inch material with 4½ yards of braid.

No. 2042—One-Piece Overblouse. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 takes 1⅝ yards of 36-inch material with 3 yards of binding.

No. 2121—"Jiffy Dress". Here's a dress that can be made in an hour so we have called it our "Jiffy Dress". The accompanying diagram shows how one straight length of material is used to make the entire dress, the patterns for which cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 takes 3 yards 36-inch material with ¼ yard 36-inch contrasting and 1¼ yards of ruffling.

No. 2047—Side-Front Closing Dress. This design would be pretty made in voile or dotted Swiss if you wanted a warm-weather tub frock. The summer silks would also be nice developed in this style, the patterns for which cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3⅝ yards of 40-inch material with 1 yard of 28-inch contrasting and 2¼ yards of ruffling.

No. 2026—One-Piece Dress. This design cuts all in one piece. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3 yards of 40-inch material with ¼ yard 27-inch contrasting and 6 yards of binding.

No. 1656—Two-Material Morning Dress. Cut in sizes 34, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 2 yards 36-inch material with 1⅜ yards of 36-inch contrasting.

No. 1807—Boys' Suit, consisting of blouse and knickerbockers. Cut in sizes 4, 6, 8, 10, and 12 years. Size 8 requires 2⅝ yards of 36-inch material.

Little red ants, a great household pest, can be trapped by sponges soaked in sweetened water. When the ants collect on the sponge it should be dropped into boiling water.

POULTRY On The DAIRY FARM

J. B. HAYES



Other Points

When a definite check is made in a number of different ways and from various angles, the results obtained are more definite and accurate than is possible when only one method is followed. The reason for striking a trial balance is to assure accuracy.

In addition to body conformation and indications displayed by the head, there are several more points that are worthy of consideration. Feed and management have an effect on the flock and culling but the entire flock is one unit under the same conditions and subject to the same influences. If one tried to use the same standard of excellence in a poorly managed flock as that in a good one, possibly the entire bunch would be culls. The practice is a comparative proposition and one must use good judgment. The poorest producers within that flock are what one must cull. As a bunch they may be poor but some are better than others.

One of the stations has set an arbitrary rule this year in that they will not cull any flock that has not been fed a complete dry mash during the entire year. The proper feed makes maximum production possible and consequently assures greater perfection in the culling results.

In the yellow skin breeds such as Rocks, Reds, Wyandottes, Leghorns, and a host of others, there is a gradual fading of the yellow pigment from certain sections. The places in which this change is most easily noted are the eyelid, beak, and legs. In Leghorns the change can be seen in the ear lobe but not in the breeds that produce brown eggs and have red ear lobes.

Young stock will have an abundance of yellow color in the sections noted if fed yellow corn and given an abundance of green feed. When production starts the color disappears until after about two weeks the eyelids will be white instead of yellow. As production progresses the color in the beak next to the head will disappear and a line will be noted that gradually grows outward until after two months of heavy production the beak will be faded.

The front of the legs will lose their color more rapidly than the back and about four months is required for this fading. The intensity of color when production starts will influence the rate at which it fades but the times stated are approximately true. If the bird is producing, one may be sure that fading will occur. During the season of culling, any hen that carries a deep yellow color in those sections has not been laying or has taken a long vacation, for the color comes back when production stops. Fading will occur when production starts and from this one can readily see that the test cannot be applied to the growing pullets or breed such as Orpingtons or Minorcas where the shank color is other than yellow.

More controversies have arisen over the subject of molt in relation to production than any one of the other points. In spite of all that has been said this change is an indication of production when the rapidity of the molt rather than the time of the year is stressed. That is the important consideration that has been completely ignored.

It is admitted that the length of laying year is true index to the number of eggs that can be produced. A pullet that starts laying in October and finishes up in November of the next year has a wonderful chance to make a big record. If another individual starts laying in March and stops in July her chances of heavy production are decidedly poor. Since production stops when molting starts, one can estimate the length of the laying year in that way.

As egg production and feather growth are intimately associated, one will look for a hen that molts quickly. It will be found that, almost without exception, the hens that molt early molt slowly and those that molt late molt quickly. If one finds an occasional hen that does molt early in the season but peels all over at one time, she should be kept for that hen will come right back into production. The same holds true of the late molter that loses her feathers slowly and comes back into production slowly. In this case there is something wrong with the hen and not with the system. Sometimes the statement has been made that it is advisable to keep a hen just as long as she molts late in the season. I would correct that by adding due emphasis to the rapidity of the change.

Last and least are the pelvic and keel bone test. Before starting on that, a word should be said about the abdominal section. A soft, velvety feeling that indicates a workable digestive tract is desired. When that region feels hard and lined with unabsorbed fat, the hen is one of the poorer producers. Interior quality as indicated by exterior handling is vitally necessary.

The keel bone is the underline of the fowl while the pelvic bones are located on either side of the vent. Emphasis has been placed on the desirability of a long keel that supports the abdominal section and prevents the so called "broken down" hens. In the same way distance from the keel up to the pelvic bone indicates the capacity of a hen. This measurement is usually taken in finger widths and is spoken of as a 4-5-6-7 or more finger hen. Little, shallow, shrunken hens in the abdominal section are not worth while. They should be deep for the breed, soft and pliable.

Distance between the pelvic bones indicates production. Before production starts in a pullet, these bones will be almost closed. As production starts the bones spread and remain in that position until she stops when they close again. From this one can see that the size of the egg controls the spread that will occur. One can satisfy himself on this point by noting the difference in width in a male, an immature pullet, and a laying hen. This test distinguishes between a hen that is in laying condition and one that has stopped.

Use all of the points that have been noted for real successful culling results. Don't place all the responsibility on one single point.

New York Experiment Station Jerseys

(Continued from page 51)

erage dairymen are obliged to use the untried sire. It is partially for this reason that the Experiment Station has tried six unproven sires and developed a herd with them that the production of this herd is of such interest to dairymen and breeders.

Beginning in 1902 when the first bull was ready for light service and ending with 1923, the daughters of six bulls have finished one or more lactation periods. Three daughters of the seventh bull will finish their first year's record in 1924. One hundred dollars has been all that the Station could afford to pay for a bull calf and all but two were purchased at this figure. By correspondence the author learned that one bull bought for $100 was valued at a higher figure and $150 was assumed to be his sales value. One bull cost $150, and another that was bred at the Experiment Station was figured at $100. The total cost of the six bulls was $700 or $116.66 each, and calculating this on the basis of 22 years, the average yearly cost of the bulls was $31.82. The entire herd cost an original outlay of $250 for the two foundation cows and $31.82 per year as the purchase price of the bull calves.

Cheap, untried bulls of poor breeding are not being recommended for general use. These figures are given to show that a pure-bred herd can be developed at a cost within the reach of all farmers. In a similar manner a high producing grade herd can be obtained at a very reasonable cost. The purpose of pure-bred cattle is primarily to increase production in the offspring with a fair degree of certainty. This result has been accomplished because the herd produces an average yield of fat which is double that of the average production of the cows in New York State, and during the past two years every heifer that freshened has equalled the heifer equivalent of this production.

In 1922 the Station herd produced an average yield per cow of 7,185 lbs. milk and 407.6 lbs. fat. According to the last New York State statistics the average cow of New York State produced 5,060 lbs. milk. Assuming a test of 3.8 per cent this milk contained 167 lbs. fat. It is recognized that these cows would have increased their production to some extent if they were fed better. The Station herd of 26 pure-bred Jerseys produced the equivalent of 37 average cows in total milk production and 63 average cows in total butterfat production. Expressed in another way, this difference is even more striking. There are estimated to be 1,415,000 cows in New York State producing 7,173,000,000 pounds milk containing 272,524,000 pounds butterfat. If these cows produced as much milk and fat per cow as the Station herd of Jerseys, 400,000 could be killed without decreasing the total quantity of fluid milk and 740,000 could be slaughtered without reducing the total fat supply. When the cost of developing a pure-bred herd of this character and their producing ability are more generally known by farmers it is inconceivable that less than 5 per cent of the cows milked by farmers in this country would be pure-bred.

(EDITOR'S NOTE: This is the first of a series of four articles by Mr. Dahlberg on lessons from the herd experience of the Geneva Station for the past quarter of a century. The next article will appear in an early issue.)

La Belle Silver Fox Farm
INCORPORATED
Breeders of Highest Quality
SILVER BLACK FOXES
Breeding Stock for Sale
DR. O. STADER, Secretary, Oconomowoc, Wis.
Member of Wisconsin Fox Breeders' Association

JERSEYS

CEDAR CREST FARMS
FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.
J. K. DERING, Owner,
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Belswood Farm Jerseys
Offering bred or open heifers. Heifer calves. Bull calves. Herd Federal Accredited. Write for pedigrees and prices.
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For Sale
REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.
My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.
D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS
Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

"Just Jerseys"
Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.
The Oaklands, R. 5, Ann Arbor, Mich.

Michigan Jersey Cattle Club
Pure-bred or grade cattle for sale. Can quote prices on individuals or carloads. R. of M. and Cow Testing Association records.
H. E. Dennison, Field Man, East Lansing, Mich.

Young Bull of Serviceable Age
and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested
H. S. HAGER, PRAIRIE DU SAC, WIS.

6 JERSEY BULLS
2 to 10 months old. R. of M. dams. Three heifer calves. R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
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FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.


Raleigh's Torono's Meme 544207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood
We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.
HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Sore Teats

I would like to know what to do for cows that have sore teats when they first freshen. The teats are smooth and they finally get sore and heal up.

Stanton, Mo. A. D.

The teats are very tender at first so that milking should be done gently during the "breaking in" process. If possible have a woman milk the heifers until they are accustomed to the act. If the teats become sore immerse them for 5 minutes or more night and morning in hot water containing all the boric acid it will dissolve, then dry gently and apply a mixture of one part of compound tincture of benzoin and three parts of glycerin. If any sore is tardy in healing apply strong iodine ointment once or twice daily. Milk with clean, dry hands after cleansing the teats.

Fails to Breed

I have a very good ten-year-old Holstein cow, but she will not conceive. She comes in heat at her regular time except when bred when she misses coming in heat at her usual period, but comes in heat again in 41 to 42 days. Is there anything I can do for her in the way of feed or treatment which would correct such a condition and cause her to conceive?

Beatrice, Nebr. F. S.

The cow apparently aborts and that most likely is due to infection with the contagious abortion disease. To determine if such infection is present you should have a sample of the cow's blood tested at the state experiment station at Lincoln. Your veterinarian can arrange to have that done. Meanwhile have him treat the cow and do not have her bred before 2 or 3 periods of heat have passed. If she proves to be affected with the contagious abortion disease she should be isolated and treated accordingly. In that event also cleanse, disinfect, and whitewash the stable, including floors and gutters, under direction of the veterinarian.

Letting a Calf Nurse

A question of cow management has arisen which we desire to refer to you for decision. We have a good grade Guernsey heifer which calved at 25 months; she is rather small, has a good bag and fair sized teats. Her calf was small and we propose to turn it into veal. The point is whether it is injurious to the cow to allow the calf to run with its mother, as we have done for three weeks. Our neighbors say we shall "spoil" the cow as a milker, although we bring her into the stable twice a day, feed her, and strip her of milk. The other side of the argument is that a young, small heifer does not give much more milk than will satisfy the calf; by handling her we get her quieted down, and when the calf is taken away we shall not find the cow any the worse. At least it will not effect her future milking qualities.

British Columbia. W. C. G.

The danger is that a serious shrink in milk secretion may occur when the calf is weaned to sell as a veal. That will be less likely to happen if you milk the heifer partially twice daily and make the weaning process a gradual one. Sudden weaning would be most dangerous. If carefully conducted no permanent injury should result from letting the calf nurse and weaning it gradually when fit for veal.

A Cow Blanket that won't tear out



Notice how this blanket is reinforced. Heavy straps and patented 4-point anchorage give it extra strength at points of strain where ordinary blankets quickly tear out. Made of genuine khaki duck. Rust proof, hold-tight fasteners. Outwears other blankets 2 to 1. First choice of breeders everywhere. Always shows up stock to advantage.

Free—we will send one on approval

THE SIGN OF SATISFACTION
DeMOIN KOW KLOZ

Try a sample Kow Kloz on one of your animals. Use it for 10 days under actual conditions. If satisfied, pay for it. If not, send it back. Write today for full information and measure blank so we can send your sample.

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THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with



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also other Bunches or Swellings. **No blister, no hair gone,** and horse kept at work. Economical—only a few drops required at an application. $2.50 per bottle delivered. Book 3 R free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Swollen Veins and Ulcers. $1.25 a bottle at dealers or delivered. Book "Evidence" free.

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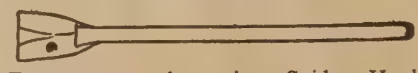
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Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,
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Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

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Home raised, well bred cows, calves, heifers and bulls for sale.

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High Producing Ayrshires

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Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

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We are offering a few good heifers and bulls from high producing dams. Show type. Prices right. Herd under federal supervision.

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Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

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Edgerstoune's Luxury Bond
Born Aug. 10, 1923

Edgerstoune's Luxury Bond

A Promising Young Bull For Sale

His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.

EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

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HAMPSHIRES

Spring Pigs $20 each—$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



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Kinnelon Bred

Bull calf of exceptional quality and conformation, born in March and sired by Illda's College Boy. His daughters with first calf are doing better than 12,000 lbs. a year. His dam is Pimpernelle who has a three-year-old record of 15,160 lbs. milk and 600.69 of fat. Since freshening she has hit 65 lbs. with a 4.7 test. Let us send you full particulars.

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Several bull calves approaching service age $65.00 to $75.00. Bulls three months and older, $50.00 and up. Best of A. R. breeding.

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Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

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Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

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BULLS 6 to 10 Mos. Old

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They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

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Midsummer price reduction sale of Registered Guernsey males, calves and yearlings, May Rose breeding, mostly from A. R. cows. Federal Accredited herd.

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combine type and production. We offer high grade and pure-bred cows, heifers and calves of all ages from clean, healthy herds free from T. B. Buy that bull needed for fall service now.

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J. C. Ralston, Sec'y., Fort Atkinson, Wis.

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Both pure-breds and grades for sale. We have some especially good registered heifers and top notch bulls to offer at the present time. Write today if you want clean cattle from the herds of reliable breeders.

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FOR SALE, bulls of serviceable age and younger, bred for production and type. Cows, 2 to 7 years old, fresh or to freshen soon. Also two heifer calves. Write

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Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

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LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

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We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

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Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to

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SERVICEABLE BULLS with best of breeding for sale. Write

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Production is increasing
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Resulting in a good market for your surplus stock. Let "The Story of the Guernsey" give you the details. Ask for it,—we will do the rest.

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These bulls are bred to sire size, type and production. Write for price, pedigree and description. If you will write us amount you can afford to pay for a bull, we will send you description on the kind you want.

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Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

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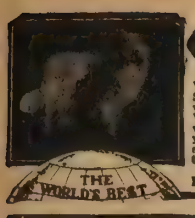
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WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

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We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.
If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Dousman, Wis.
A clean herd under state and federal supervision

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
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In Purebred Tuberculin Tested Holsteins
Sold Subject to a 60-Day Retest

35 Registered cows due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 Registered Heifer Calves, sired by a 30 or 1000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head.
This is only one of several bargains that we are able to offer you in better bred Purebred Holsteins where breeding has been in progress for twenty years. Wire or come at once. Buy before prices advance.

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Can furnish Holsteins. Choice grades and pure-breds, all ages, any number. Bulls of serviceable age. Calves for calf clubs. Reasonable prices.

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An outstanding Homestead sire. 4 of his full sisters one a Jr. 2-year-old average 22,675.7 lbs. milk, 898.34 lbs. butter in a year.

Iowana Farms' Junior Herd Sire

SIR JOHANNA FAYNE 42147. 75 A. R. daughters. His daughters have been exceptional long time producers and winners in the show ring.

SIR FAYNE CONCORDIA 35227. 27 A. R. O. dau's.
JOHANNA DE PAULINE 4th 60992. M. 582.9, 7 da. B. 25.47 7 da. Private herd record 17663 milk and 714.3 butter in a year.

HOMESTEAD JR. DE KOL 2840. 73 A. R. O. dts
GRACE FAYNE 2D 44124. Butter 26, milk 677 7 da.

SARCASTIC LAD 23971 34 A. R O. daughters.
JOHANNA DE PAULINE 42169. b. 20, m. 437.6 7 da

STAR WATSON 71898 Milk 529.4 lbs. in 7 days. Butter 22.79 lbs. in 7 days. 7 A. R. O. daughters. 4 above 20000 lbs. milk in a year. One of the breed's greatest foundation cows.

CHIEF PIEBE OAK DUCHESS 28176. 22 A. R. O. dtrs. Ollie Watson Prima Donna. butter 31.1, milk 618.7 in 7 days.
OLLIE WATSON 5th's PEARL 59175. Milk 361.7, B. 14.65 7 da. 4 yr 15 da. 2 A. R. O. daughters

PIEBE DE KOL BURKE 25368. 28 A. R. O. dts.
LADY OAK 2d 39947. Butter 21.49, milk 492.9 in 7 da.

PEARL OF THE DAIRY'S JOE DE KOL 23450. 76 A. R. O. daughters.
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He is being bred to the daughters of Meadow Holm Ona Hartog King as well as to many of our good Homestead cows. His sons and daughters are outstanding. We have a few of his sons from A. R. O. dams for sale.

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Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

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Oconomowoc, Wisconsin
Herd under federal supervision.

HERD SIRE FOR SALE
Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
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- For Sale or Trade -

Macmoor Johanna Homestead, 2½ yrs. DAM: Canary Tulip Pietertje Johanna (614 lbs. milk, 23.9 lbs. butter). SIRE: North Star Joe Homestead. SIRED BY: Bessie Fobes (32 A. R. O. daughters). DAM: North Star Daisy Johanna (Butter: 1072.2 lbs. Milk: 24,823.4 lbs.)
This is an outstanding bull both for quality and production. Has show record. Sound and straight in every way. On account of having daughters of breeding age in herd, will trade for bull of equal merit or will sell for $200.00. Also some very good grade springers for sale.

MACMOOR FARM, FISHERS, INDIANA
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Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

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Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.



Sadie Cornucopia Whitebird

Another Great Daughter

of Sir Sadie Cornucopia (the best son of the 1st 30-lb. cow). This one has 1109 lbs. butter, 26,107 lbs. milk for the year. Four daughters in our herd average over 1000 lbs. butter and their average weight is about 1850 lbs. Send for illustrated circular—line bred Sadie Vale calves for sale.

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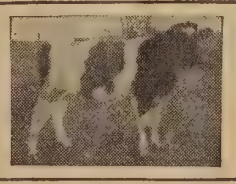
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Hargrove & Arnold, Norwalk, Ia.

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out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.
Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.



SERVICEABLE BULL — From A. R. O. Dam

Born April 18, 1923. Sired by Sir Walker Segis Homestead, a son of "PIEBE" from a 1230 lb. former world record daughter of "COUNT." Dam—a 22.38 lb. 2-year-old, 615 butter, 16000 lb. milk in 305 days and now making 26 lb. in 7 da. as 3-year-old. One of 29 A. R. O. daughters of King Segis Pontiac Fayne Star, the best proven son of "COUNT". Price $350.00. Write for photo and pedigree.

CARLETON COLLEGE FARMS, NORTHFIELD, MINNESOTA
Federal Accredited Herd.



Dean Homestead Ormsby

Born Dec. 31, 1923

Sire. DEAN OF THE ORMSBYS, a son of Sir P. O. M. 37th, out of Colantha Pietertje Lass, a 1265-lb. daughter of Sir Pietertje Ormsby Mercedes. Dam. LASHBROOK FAY HOMESTEAD, a beautiful two-year-old daughter of Sir Walker Segis Homestead, a show heifer now on yearly test.
THIS IS A REAL BULL CALF, ONE YOU WILL LIKE TO OWN
PRICE ONLY $250. Send for pedigree and photo.

A. J. LASHBROOK, Northfield, Minn.



FOR SALE—A SHOW BULL

Born November 1st, 1923

His sire, sire's dam and grandam are all show animals. His sire's dam is Minnesota's only 30-lb. 2-year-old. She also has a good 305-day record as a yearling with an average test of 4 per cent. His own dam, a daughter of Sir Walker Segis Homestead, has a record of 17 lbs. of butter in 7 days and 532 lbs. in 305 days at 26 months of age.
He's guaranteed. Write for pictures and pedigrees.

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Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

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200 Carloads of Holsteins

is our motto for this year. We can supply you with as many as you want. Carload lots our specialty. Fine selection, courteous service, and reasonable prices. Less than one-half of one per cent T. B. Home of the World's Greatest Bull Association.

LIVINGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
Burr J. Hoover, Secretary Howell, Michigan

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.
ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

30 Extra Fancy Grade
HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.



Prince Aaggie of Berylwood

Prince Aaggie of Berylwood

THE OUTSTANDING PRESENT DAY SIRE

His dam, Aralia De Kol Mead 2d, has just finished a world's record of 1072.8 lbs. butter made on 2 milkings a day. She has a previous record of over 1300 lbs., and produced 37 lbs. in 7 days. All of his 7 nearest dams have records above 1050 lbs. in a year. They average 1181.8 lbs.
"Prince Aaggie" is a grand champion bull himself and his daughters show great promise.
Write for information about one of his good sons.

BERYLWOOD STOCK FARM, J. W. Snodgrass, Mgr., HUENEME, CALIF.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.

Our Honor List — Traverse Colantha Walker 361604

Bred, owned, and developed by Traverse City State Hospital, Traverse City, Michigan.

One of the Great Cows of the Breed

Her latest record, 38.5 lbs. butter in seven days, makes her fourth record above 35 lbs. and her fifth above 30 lbs. The five records average 35.96 lbs. and two were made in heifer form.

She has five records for 305 days ranging from 914.18 to 1080.40 lbs. butter and from 19,031.2 to 22,893.7 lbs. milk. These records average 984.56 lbs. butter and 20,633.7 lbs. milk. As a five-year-old she made 1220.21 lbs. butter and 24,850.6 lbs. milk in 365 days, and her senior two-year-old record for 305 days butter production still stands as the world's record.

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EVER FAILING OR NEVER FAILING PASTURE

Part 6.

Sweet Clover Saves Many Acres of Farm

WILBER J. FRASER, University of Illinois

Land is the greatest investment in farming.

The experience of 81 farmers shows that the use of sweet clover pasture instead of bluegrass saves the dairyman two acres of land for every cow he keeps and in fact just the same as presents him with a deed to twice as many acres of land as he has cows. This is certainly an immense saving and the higher priced the land the greater the saving.

AT the present time land is the greatest item of investment in farming. Whether the land is owned or rented, the cost every year in interest or rent is a large part of the cost of production—about 40 per cent of all in dairy farming.

In the early days, land was very abundant and labor was scarce. This was true to such an extent that there was much free range in parts of the country, but even where men owned the land it was good economy to take advantage of every way possible to use land freely to save labor. Later it was considered that dairy farming should be confined to broken, untillable, cheap land because this was the only kind of land that would furnish economical pasture. Dairying then was confined to the summer months and the cows depended largely on pasture for their feed, being dry during the winter and easily maintained on cheap rough feed at that time. This idea of dairying being mainly a summer proposition, dependent on the natural bluegrass pasture, has held over to quite an extent even to the present day, except in the intensive dairy regions where cows are fed large quantities of grain, hay, and silage, both summer and winter. But even here, much pasture is used and it is still largely bluegrass.

Poor Pasture Wastes Land

The last quarter of a century has seen most fields of agriculture advance by leaps and bounds, but the yield of pastures has been little studied or improved. This is true in both the scientific field and in the art of dairy farming with the result that, in spite of the use of large acreages of pasture per cow, dairy cows and heifers are often more neglected and actually suffer more from lack of feed during the summer growing season than during the bleak winter when all crops are frozen up and dormant. The farmer realizes at that time that he must provide *all* the feed for his cows, and consequently he does so. It is from the lack of knowledge of the failure of bluegrass that many starve their cows during the summer.

This point is one of the weakest factors in the operation of most dairy farms because the six growing months should be the time of year that dairy cattle are fed cheapest, easiest, and best, and with a small amount of land per cow.

Sweet Clover Pasture Saves Two Acres Per Cow

We have seen in Part III that it requires an acre and a half of bluegrass pasture and an acre and a half of cultivated crops, making a total of three acres, to adequately support a dairy cow for the summer six months. On the other hand, the testimony of 81 men, as reported in Part IV, shows that sweet clover has a pasture value of about four times that of bluegrass and thus requires only one-fourth as much land to supply a given amount of feed. The result of this is that it requires only three-fourths of an acre of sweet clover and one-fourth of an acre of corn—to grow the small amount of grain needed—to keep a cow for the same length of time. So we see, *the use of sweet clover pasture instead of bluegrass saves the dairyman two acres of land for every cow he keeps and in fact just the same as presents him with a deed to twice as many acres of land as he has cows.* This is certainly an immense saving and the higher priced the land the greater the saving.

It is true that some dairymen who pasture bluegrass do not use this amount of land per cow in growing the feed for the summer six months, but they either have exceptional bottom land for their bluegrass or else they do not supplement it properly with sufficient other feed, and thus allow the cows to go hungry and shrink in milk flow.

Lack of land is a serious though very natural handicap in farming. A young man buys the farm he operates when he has little capital and must of necessity be satisfied with a relatively small farm. Later he wants to operate on a larger scale—keep a larger herd of cows and perhaps more hogs, or sell grain. He would then be glad to buy more land, but there is none for sale near by at a reasonable price. He does not want to leave the home and farmstead he has improved to his liking; he does not want to leave friends and neighbors and move to a different locality; and he feels at a serious disadvantage. But this man may easily help himself out of his dilemma by changing his bluegrass pasture to sweet clover and thus release a considerable acreage on which to grow other crops. This applies in a greater or less degree to every live stock farmer, because everyone would be glad to have land released at little or no expense.



HERE 25 ACRES OF SWEET CLOVER PASTURE SAVE 75 ACRES OF TILLABLE LAND

THIS dairy herd of 40 cows and 10 heifers, belonging to Mr. Meyers in Northeastern Illinois, is pastured on 25 acres of sweet clover. He turned out April 30 and his cows increased in milk flow even though all the silage, legume hay, and grain were discontinued. Last year on bluegrass, he fed silage until the first of July, but says his cows produced better during May and June this year on sweet clover alone.

The cows were producing an average of 25 pounds of milk per day, and the clover was knee-high June 26, as may be seen on Mr. Meyers, who is standing among his cows; but the bluegrass on this side of the fence, in which Farm Adviser A. J. Gafke is standing, does not cover his shoes, and it has not been pastured this year.

This bluegrass is a portion of the 100 acres on which this herd was pastured last year, and Mr. Meyers says that it did not furnish as much feed as one-fourth this area in sweet clover is furnishing this year. This is an actual example of where 25 acres of sweet clover replaced 100 acres of bluegrass, and saved 75 acres of fine, tillable land.

What the Dairymen Say

The following quotations are typical of the many replies received in answer to the question, *"From your experience, how much better is sweet clover pasture than bluegrass"?*

"Sweet clover will pasture four cows where the same area of bluegrass will pasture only one."—E. J. Giss, Northern Illinois.

"One acre of sweet clover is equal to four acres of bluegrass pasture."—Levi Wait, Northern Illinois.

"Sweet clover pasture produces about three times more feed than does bluegrass and has become my favorite pasture."—E. Elsbury, Northern Illinois.

"I get three times the feed from sweet clover pasture that I can from the same area of bluegrass."—G. A. Vasey, Northern Illinois.

"Sweet clover is three times as good as bluegrass pasture."—George Klitzing, Southern Illinois.

"One acre of sweet clover pasture is equal to three acres of bluegrass."—Nick Maes, Southern Illinois.

"Sweet clover pasture is four times better than bluegrass. Really it can

(Continued on page 93)

Starting A Dairy Under Difficulties

FLOYD A. POWELL, MISSOURI

I HAVE gotten so much from reading about other persons' experiences I feel that I should try to help some one else by giving my experience in raising week-old calves under ordinary farm conditions and when no skimmilk is available.

The soil in Montgomery County, Missouri, is not the best in the state but the farmers compete with the farmers in the corn belt in raising corn, hogs, and wheat. At best it is a gamble and in the past few years the farmers have been hard hit. Gradually the farmers are turning from the old established method of farming into dairying, as this is a fine grass country. Any cow that shows dairy qualities may be sold for a large price.

The winter and summer of 1921 my brother attended the Missouri University and worked with the dairy department to help pay his expenses. He became a lover of Holstein cattle and enthused over dairying, so he took the necessary training to become a cow tester. He applied for and got the job of cow tester for West Kent County Cow Testing Association, Michigan. When he left we decided to start a dairy of our own. He was to buy young heifer calves about 3 or 4 days old from high testing Holstein cows and ship them to me and I was to raise them. By this method we would know that we were getting good stock and at a lower price than they could ordinarily be bought at. He has shipped me eight heifers and one bull.



Dot at 16 months of age. When received by Mr. Powell she was two weeks old and weighed 115 lbs. Her dam has a record of over 10,000 pounds milk in a Michigan cow testing association.

The first two calves came together and were about three weeks old. They were fed once on the trip from Michigan to Missouri, but were very hungry when they were brought home. To prevent making them sick I gave them all the warm water they would drink. The way I started them drinking was by letting them suck my thumb, then slowly emerge it in the water, then I remove my thumb and they drink. After they had drank all the water they wanted I let them suck the cow, about a quart, then eight hours later I let them have about two quarts and the third feeding they got all they wanted. As they were three weeks old they were soon eating bran and hay.

I have used this same plan for every calf and have found it to be O. K. The calf will drink about two or three gallons of water the first thing. It has had no ill effects that I could notice and they were more satisfied than if they had been allowed only a small amount.

When the calves are two weeks old I begin to fasten them to a trough with just a handful of bran in it. The calf will soon begin to eat but I am careful not to leave any in the trough. I keep timothy hay before the calves at all times, as also water. I have raised the entire lot with only one cow and as we have no separator I let them suck her, having as many as three sucking at one time. No. 1 and No. 2 at night and No. 1 and No. 3 in the morning (No. 1 being the youngest calf). It has been necessary to wean several at 8 to 10 weeks of age. I feed a mixture of 100 lbs. oats, 100 lbs. bran, and 25 lbs. oil meal. Each calf gets as much as it will eat twice daily until it is eating about 2.5 or 3 lbs. daily. Corn stover and timothy are used for roughage as no alfalfa or silage is available.

When the weather is good the calves run out but during cloudy weather they are kept in a shed. They are kept well bedded, always having dry straw covering the entire shed. Warm water was kept in front of them at all times during the cold weather and the water pail was washed out and scalded once daily. The calves have never been bothered with the scours. I once read to mix a little common salt with the feed whenever the calves showed signs of having the scours and have found it to work well.

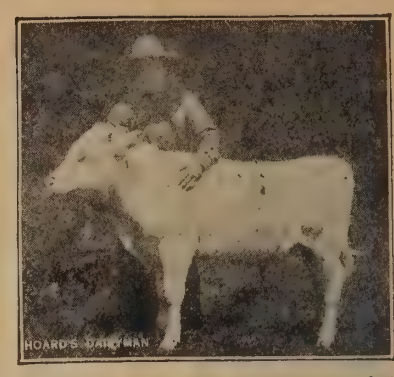
I have never lost a calf and only once did a calf fail to eat heartily. She had been out just after a killing frost and probably had eaten some frost bitten weed and got poisoned. She came up slightly bloated and refused to eat. I forced an egg in her mouth and she swallowed it. The next morning she was bawling for feed. Barring this one time I have never had any to refuse to eat.

My brother, a cow tester, selects calves from extra good cows to send me. The dam of one has a three-year average of 9,993 lbs. milk containing 404 lbs. fat. The bull is from a 23-lb. 3-year-old and his grand sire is from a three times over 30-lb. cow. His dam had the highest month record in Michigan association work, with 126 lbs. fat in 31 days.

The two oldest heifers have recently been bred, being about 16 months old, and when they freshen my brother expects to discontinue his work as cow tester and manage our herd. His experience as tester and association with successful dairymen will be of great value in handling a herd of his own. Our heifers are only high grades but we intend to purchase a few high testing pure-breds in the near future.

This spring we sowed about 12 or 13 acres of sweet clover and an acre of alfalfa as an experiment. Alfalfa is not supposed to grow here. If we are able to grow it, it will save buying so much high priced mill feed. As an aid to the cows we have a herd of registered spotted Poland-China hogs and Barred Rock chickens.

This article is not in accord with the acknowledged practice of raising calves but necessity is the mother of invention. We were determined to have a dairy herd and could not invest any large amount of money. The calves might have been larger if they had been fed alfalfa in the place of timothy, but alfalfa costs so much



The bull calf at six months of age that weighed 125 pounds and was one week old when received by Mr. Powell in Missouri.

here it is almost prohibitive. I have found out that it is almost impossible to grow a calf without milk, at least until it is 6 or 8 weeks old. No calf feed will take the place of milk before that, at least that has been my experience.

Some may wonder if my calves aren't stunted. They aren't. I have had some rather flattering offers for them but refused to sell them. If skimmilk and alfalfa, or any legume, are available, feed them by all means but if they aren't do not think little calves can't be raised because they can.

The best I can estimate, these heifers will have cost when fresh, $100 each, exclusive of work. Where can you beat such stock at that price?

I consider my success in raising these calves under ordinary farm condition is due to the following:

1. Feeding: Feed a good balanced ration and all the calves will eat.

2. Cleanliness: Keep the stalls clean and well bedded. Keep the troughs clean and wash and scald the water pail daily. Use clean, pure water for drinking.

3. Regularity: Feed and care for the calves at regular hours. They will look for feed at that time and handle better.

4. Kindness: Be kind to the calves, have them gentle; they will do better, be easier to handle, and will show themselves better when anyone visits the herd.

5. Alertness: Watch for sign of the calf's condition, watch the droppings and its hair. Read all about handling cows possible, listen to everyone that has had any experience in the work and select whatever applies to your conditions.

Maryland Fitting and Showing Contest

THE second annual fitting and showing contest was held May 31st, at the University of Maryland, College Park. The contest was held under the auspices of the Students' Live Stock Club which is composed of students in the Dairy Husbandry and Animal Husbandry Departments. The instructions on fitting and showing the animals were given by a member of each of the two departments. A total of forty-five animals were fitted and shown. Each contestant was given the privilege of choosing the class in which he wished to work but the animals within each class were drawn by lot to decide the particular animal that each student would fit and show.

Seven classes of dairy cattle, one of hogs and one of sheep, were shown. The dairy classes consisted of one class each of Ayrshire and Guernsey calves, heifers, and mature cows. The winners in each of these six classes came together for the championship class. Ribbons were awarded to the first four individuals in each class and two additional prizes were awarded to the first and second individual in each class. These two prizes for each class were given by breed journals, farm papers, and publishers or writers of books on live stock. A silver loving cup was presented by Professor J. A. Gamble, head of the Dairy Husbandry Department, to the winner of the championship class for dairy cattle.

The following are the winners in each class of dairy cattle: Ayrshire calves, George Stokes, Maryland, first; Floyd Ritter, Virginia, second. Ayrshire heifers, Harry A. Stewart, Virginia, first; John Toxey, North Carolina, second. Ayrshire cows, L. P. Ditman, Maryland, first; Edward J. Smith, Maryland, second. Guernsey calves, Douglas A. Parran, Maryland, first; Laurence A. Wilson, Maryland, second. Guernsey heifers, Clarkson J. Beall, Maryland, first; Harry Hamlin, Maryland, second. Guernsey cows, H. T. Cottman, Maryland, first; C. W. Seabold, Maryland, second.

George C. Stokes of Maryland won the championship and silver loving cup with the Ayrshire calf, Bonnie Bonnie Maes.

Louis McL. Merryman, Maryland, placed the dairy classes and B. E. Carmichael, Extension Specialist in Animal Husbandry, placed the hog and sheep classes.

The dairy cattle were fitted and showmanship taught by Professor L. W. Ingham of the Dairy Husbandry Department, assisted by the herdsman, A. M. Stagg.—J. A. GAMBLE.



OFFICERS OF THE STUDENTS' DAIRY CATTLE FITTING CONTEST, UNIVERSITY OF MARYLAND

Left to right: N. N. Nichols, secretary; W. A. Bromley, member of show committee; B. H. Roache, president Live Stock Club; J. L. Maglone and T. P. Rowe, members of show committee; W. D. Powell, chairman of committee.

If you are going to do anything permanent for the average man, you must begin before he is a man. The chance for doing good lies in working with the boy and not with the man. —THEODORE ROOSEVELT.

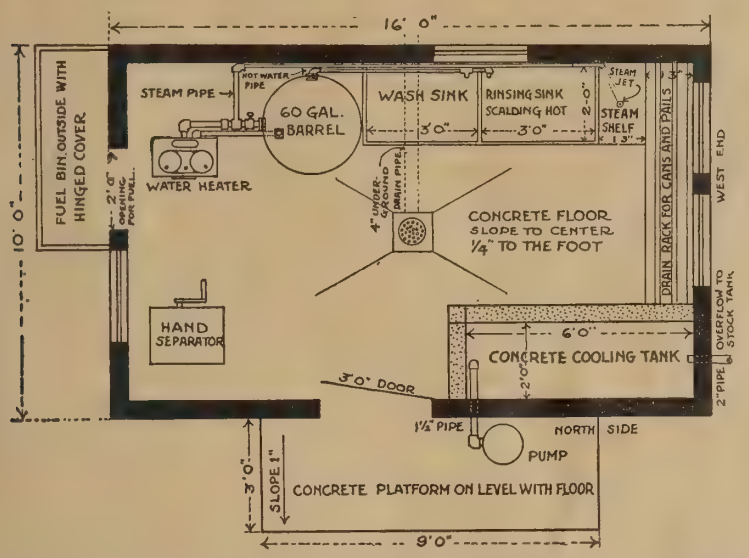
HOT WATER AND STEAM AT SMALL EXPENSE

Plans for Convenient Dairy Houses

C. A. HUTTON, TENNESSEE.

ON farms where dairy cows are kept an abundant supply of hot water is one of the greatest conveniences, and an absolute necessity for properly washing the dairy utensils. They cannot be properly washed unless the water is hot, —"sizzling" hot, not lukewarm. Where only a very few cows are kept the water is often heated on the kitchen stove, but this method is not very satisfactory, as the amount of water heated is apt to be very small and it is not usually very hot by the time it is carried to the dairy house.

If several cows are kept a dairy house should be built and ample provision made for conveniently heating the water. Most dairy farmers now realize the importance of having plenty of hot water and steam in the dairy house, but not many small dairymen have made provision for same for the reason that the equipment recommended in the past has, in most cases, been too large and too expensive for the average farm dairy. In order to find a practical and inexpensive method of heating water and furnishing steam for the average, small farm dairy, the writer has made tests of many arrangements and devices. A small wood or coal stove, or a two-burner oil stove, with a wash boiler on top, or a small, home canner, is one of the cheapest outfits to be had for the real small dairy, but neither of these outfits will furnish steam and neither one is as satisfactory as the arrangement shown in the accompanying illustration.



PLAN FOR A DAIRY HOUSE SUITABLE FOR TAKING CARE OF THE PRODUCT FROM A HERD OF NOT OVER 20 COWS WHERE CREAM IS SOLD

If a large herd is kept and a steam turbine separator is used, the small, upright boiler commonly used to operate the separator may, of course, be used also to furnish the hot water and steam for washing and steaming the utensils. However, many farmers use a small gasoline or kerosene engine for pumping water and find it convenient to operate the separator with the same engine.

The hot water heating outfit, designed by the writer and shown in the drawing, is an inexpensive and very efficient system of heating water. It also furnishes a sufficient amount of steam for sterilizing the cans, pails, etc. A small amount of coal or wood will heat a barrel of water to the scalding point in a few minutes. The same outfit may also be used for heating water for the farm laundry, bath, etc., in addition to furnishing hot water and steam for the dairy.

As the water in the water jacket or pipe coil surrounding the fire-pot is heated it automatically moves upward into the barrel and cold water from the bottom of the barrel flows into the jacket or coil through the lower pipe line. In this way all the water in the barrel is soon heated. The barrel should be securely anchored to the wall and floor of the milk house to prevent the connections being shaken loose by the movement of the barrel caused by the violent boiling of the water.

In setting up the outfit begin at the back of the heater. Put on the connections on both the top and the bottom pipe lines until the barrel is reached. Bore three 1-inch holes in the barrel at the proper places and complete the connections to the barrel with lock nuts and washers. Then complete the hot water and steam lines to the wash sink and steam shelf.

You Can Also Have Steam

Steam for properly sterilizing the utensils is of great assistance in properly cleaning them. The outfit shown will furnish plenty of steam in addition to hot water. When the water in the barrel has begun to boil and the operator is ready to begin washing the utensils, the globe valve A, on the hot water discharge line, is closed. This stops the upward movement of water from the heater to the barrel and the water in the jacket or coil is quickly converted into steam. The utensils are first rinsed out with cold or lukewarm water, then washed in the wash sink, laid over in the rinsing sink filled with scalding hot water, and then inverted over the steam jet for a few minutes. They are then pushed over onto the sunning rack to dry where they may remain until used again. See arrangement shown in the two plans for dairy houses on this page.

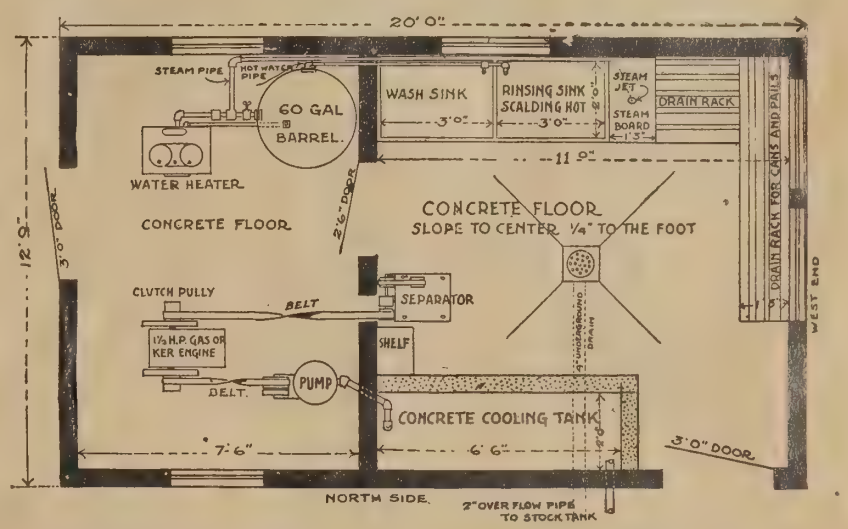
While steam is being generated hot water flows into the jacket or coil from the barrel through the lower pipe, and steam will continue to flow through the steam jet as long as valve A is closed and valve B is open. When both valve A and valve B are closed the steam backs up through the lower pipe line and bubbles up through the water in the open barrel, making the outfit absolutely safe so long as an open barrel is used. Valve A should be kept open except when steam is wanted, because the water in the barrel will heat faster if it is open than if it is closed.

The steam pipe behind the barrel must be higher than the level of the water in the barrel to prevent the water from flowing through it before it is converted into steam.

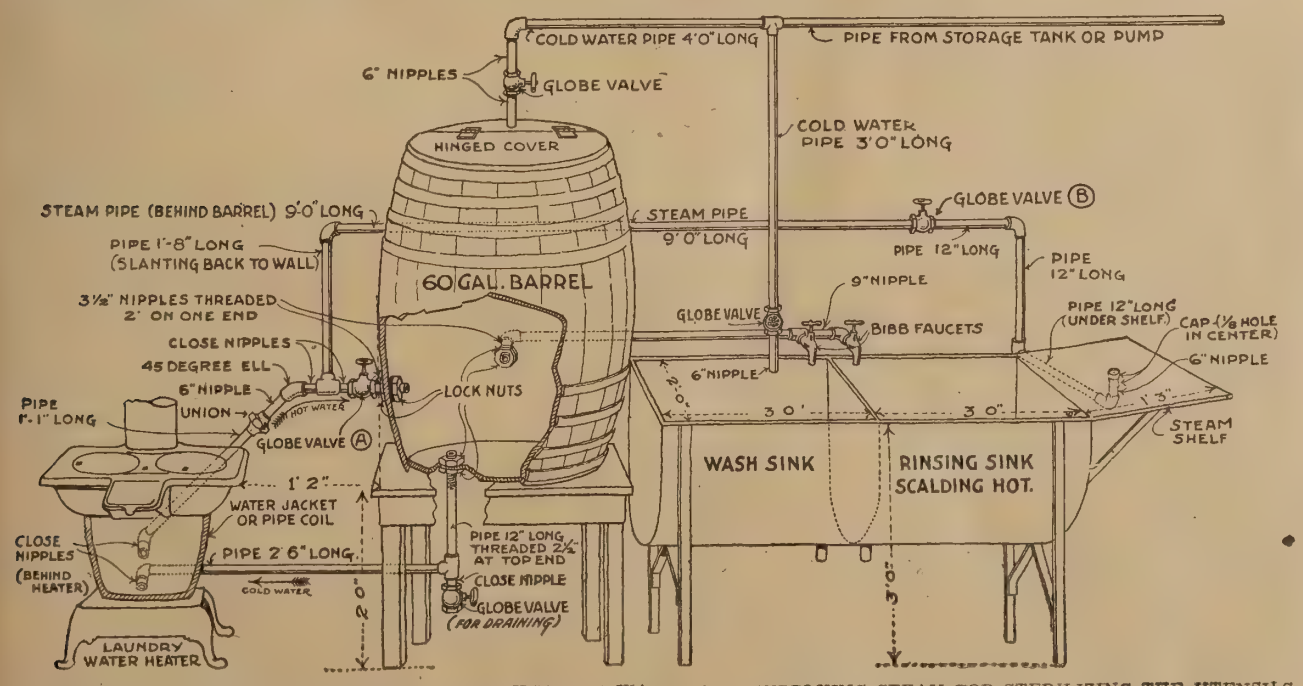
To secure steam where the outfit is connected with a pressure water system or an air tight hot water tank, it is necessary to place a valve on the cold water pipe entering the tank so that the flow of water into the tank can be stopped while generating steam. If this is not done the pressure from the storage tank will force water through the steam line before it is converted into steam. Also place a pop-off valve or an air cock on top of the tank to relieve any excess pressure caused by not using the steam as fast as it is generated. When through steaming, the valve on the cold water pipe entering the tank and valve A should be opened and the water allowed to circulate freely, the same as when heating the water.

If only hot water is wanted the

(Continued on page 92)



DAIRY HOUSE FOR PROPERLY CARING FOR THE CREAM FROM A HERD OF 15 TO 40 COWS WHERE A POWER SEPARATOR AND A POWER PUMP ARE USED



AN INEXPENSIVE AND EFFICIENT OUTFIT FOR HEATING WATER AND SUPPLYING STEAM FOR STERILIZING THE UTENSILS

The following pipe and fittings are required to set up the outfit as shown, not including the cold water line from the storage tank or pump to the barrel and wash sink: 5 close nipples; 2 three and one-half inch nipples, threaded 2 inches on one end, ordinary threads on the other end; 2 six-inch nipples; 1 nine-inch nipple; 8 ells; 1 forty-five degree ell; 3 tees; 1 union; 3 globe valves; 6 lock nuts; 6 washers with 1⅛-inch hole; 2 bibb faucets; 1 cap with ⅛-inch hole in center; 3 pieces pipe 1 foot long; 1 piece pipe 1 foot long, threaded 2½ inches on one end, ordinary threads on the other end; 1 piece pipe 1 foot, 1 inch long; 1 piece pipe 1 foot, 8 inches long; 1 piece pipe 2 feet, 6 inches long; 1 piece pipe 4 feet long (hot water pipe from barrel to faucet); 1 piece pipe 9 feet long; sufficient pipe and fittings for the cold water line from storage tank or pump. All pipe and fittings ¾-inch galvanized. Many water heaters have one-inch holes for the pipe connections. In such cases two ¾x1-inch reducers should be included in the list of fittings. Due to an error in lettering the drawing the length of the wash sink and the rinsing sink is shown as 30 inches. Each should be 3 ft. long. The outfit will be more permanent if a metal gasoline barrel is used instead of the wood barrel. If an airtight barrel or tank is used with the steaming arrangement, either a pop-off valve or an air cock should be installed on the top as mentioned in the article. The outfit can be set up complete as shown, not including the wash sink, for $25.00 to $30.00.

More Than a Coincidence

J. C. McDOWELL, U. S. Department of Agriculture

IF you will look at a map of the United States that shows where the cow testing associations are located, you will observe that most of them are in the great dairy districts of this country. Is that merely a coincidence, or is it more than a coincidence?



On July 1, 1923, there were in the United States 627 cow testing associations. These were distributed throughout thirty-nine of the forty-eight states. There is only one state in the Union that has never in all its history had a cow testing association. The first cow testing association began work in January, 1906, and since that time the number has increased year by year until today there are between seven and eight hundred. The exact number will not be known until the census on that subject is taken the latter part of the year.

On the first of last July the ten states that, according to the 1920 census, ranked lowest in average production of milk per cow had a total of 11 cow testing associations; and they had an average of 0.2 of one per cent of their dairy cows on test. The ten states that ranked the highest in average production of milk per cow had a total of 272 cow testing associations; and they had 2.8 per cent of their dairy cows on test. The percentage on test in the states of high production was 14 times as great as in the states of low production.

Certainly it is more than a coincidence that this is so. But which is cause and which is effect? Did the cow testing associations bring the greater average production, or did the larger production bring the associations? Cow testing association records show that the work results in increased production, but there are not enough associations in operation in any state to account for the larger yields in those states where cow testing associations are most numerous. To me the most plausible explanation as to why the great dairy states have the largest percentages of cows on test is that many wide-awake, up-to-date, progressive dairymen have recognized that the cow testing association is a good thing and they are making use of it to increase further the production and profits from their dairy cows. In fairness it must also be said that the work of the cow testing association is done most economically where the herds are large.

It is very unfortunate that there is so little testing done in those districts where average production is low. It seems that those districts that need it most appreciate it least. No truer saying was ever uttered than, "To him that hath shall be given and from him that hath not shall be taken away even that which he hath." The man who has a good dairy herd is always looking for ways to improve that herd, and it is not difficult, usually, to get him to join a cow testing association. But the man who has a scrub herd seems to be perfectly satisfied to go on milking his scrubs year in and year out. He seldom thinks of improving that herd and he cannot be induced to consider joining a cow testing association. The owner of a scrub herd is reported to have said: "I am only half feeding my cows now and I am losing a little money on them. If I fed them all they would eat I would lose a lot of money on them." I am not sure that the cow testing association or anything else would do that fellow any good.

The annual directory of cow testing associations shows than on July 1, 1923, there were 277,010 cows on test in cow testing associations. That is a little more than one per cent of the 24,000,000 dairy cows in this country. The records show that the cows on test are producing about 50 per cent more milk and fat than those that are not on test. The records further show that practically all the net profits come from that 50 per cent. What then of the poor fellow who owns average cows? To be sure, he keeps out of the poorhouse, usually, but how he does it is a mystery. The wife of a no-account farmer once said to me: "You may wonder how we live. Well, I'll tell you. We don't spend nothin'." Perhaps that's the secret of making a living from scrub cows: "Don't spend nothin'."

Most good, respectable, genuine, red blooded American citizens like to make money and spend it, and they can't do that with scrub cows. On the other hand, the well bred, well-fed dairy herd yields a very satisfactory profit. The average cow testing association cow produces about 6,000 pounds milk and about 250 pounds fat a year. Some association herds produce from 8 to 10 thousand pounds of milk, and from 300 to 400 pounds butterfat. It is a pleasure to milk such cows and it is a pleasure to live on a dairy farm where such cows are kept. If we had a way of measuring the intelligence of farmers I am quite sure we would find a high coefficient of correlation between the intelligence of the farmer and the large production of his cows. I am quite sure, too, that we would find the relation between cow testing association work and large average production per cow something more than a coincidence.

Dozen Reasons Against T. B. Testing

ILLINOIS DAIRYMAN

I HAVE followed carefully articles and editorials appearing in your publication from time to time, bearing on the reliability of the tuberculin test which certain government officials, our farm bureau, and some farm papers, which include Hoard's Dairyman, are "hell bent" upon coaxing or forcing every cow owner in this country to apply to his herd. As the matter appears to me, you perhaps unconsciously fail to bring out some important features of the test which every dairyman should understand before he places his name on what is called a contract to co-operate with the federal government.

As owner of a herd of around fifty head of high grade Holstein cattle, it has been my object to give the question of submitting my animals to the test, more than passing thought. After a careful study of the matter, both pro and con, I can enumerate at least a dozen reasons why I should not test my good cows:

1. The question of whether or not bovine tuberculosis can be transmitted to humans through raw milk is, as yet, a matter over which scientists disagree.

2. The accuracy of the tuberculin test as practiced at the present time is, to my mind, gravely doubtful. A neighboring dairy farmer owning a herd of registered cattle, known as "Federal Accredited", recently shipped his old herd bull to the Chicago stock yards, only to find that the animal was so rotten with tuberculosis that his meat was unfit for food, though he had never reacted to any of the applied tests. I could cite other cases of the same or more aggravated nature. The owner of the bull mentioned is now told that he will doubtless find that some of his valuable cows will be condemned as diseased owing to daily association with the infected bull.

3. I am told that only a small per cent of the cows condemned as diseased are found, upon slaughter, to be infected in organs from which the germs could be drawn through the udder, a large number of such animals showing but very slight or doubtful tubercular lesions.

4. A great many of the statements made to cattle owners in order to induce them to submit their cows to the test are either absolutely false or at least very misleading. The prospective subject is often told that his registered cows may be appraised at higher figures than the law allows, that having only one or two thin or unhealthy cows in his lot may mean that the others are free from disease, when as a matter of fact it is often the healthier looking animals which are found to be reactors.

The statement often made or implied that most of the carriers shipped to the slaughter yards are found to have tuberculosis, is flatly contradicted by a man who is in a position to know the facts.

5. I have been told that should I test my cows, clean up the premises, and use ordinary precautions to keep out further infection, my initial loss would probably be the end but I could mention a great many examples to prove that there is no end of a dairyman's loss after he once signs up. What he thinks is the end may be but the beginning. He may have an accredited clean herd for several years and suddenly learn that 50 per cent of his animals are diseased. Only a few months ago 17 out of 36 head of cows on an accredited Wisconsin farm were condemned as tubercular reactors. Where did it come from? Nobody knows.

6. Authorities advise me that should I test my cattle, as necessary precaution against reinfection, I must fence and bridge a stream from which my cows now drink in summer time and which stream during the freshest season is often wide as a large river. Also I must build double line fence adjoining my neighbor in order to keep my cows from nosing a bunch of native steers which, by the way, the government authorities do not believe should be tuberculin tested. The only alternative is to abandon my large pasture.

7. Several members of the dairymen's organization to which I belong have been compelled to quit the business of dairying owing to the severity of their losses following a tuberculin test. One farmer owning as fine and healthy a looking herd of Holsteins as man ever saw, lost 42 out of a total of 44 head. One animal condemned was said to be the fattest black and white ever condemned as a reactor. The farmer mentioned was forced to the financial wall and lost not only his dairy business but his farm as well on account of the poor judgment he showed in submitting his cows to the hands of a county tester.

8. All the milk from my dairy is carefully pasteurized before being bottled for market and, according to Chicago City Health Department, pasteurization is very accurately done by the distributor to whom I sell. All agree that properly pasteurized milk is free from dangerous bacteria.

9. My cows are valued at an average of nearly $200 each which is $150 more, not counting salvage, than I could recover should I test and lose them, even should they be appraised at the highest permissible figure which, of course, I could not expect.

10. If the drinking of raw milk from untested cows is dangerous to human health, why is the per cent of human infection traceable to the bovine type of tuberculosis so very low in the rural districts of Illinois and other states?

11. As it appears to me, most of the propaganda now being so noisily broadcasted in an effort to coax or force us to test our cows, can be traced to men whose salaries would stop should the farmers refuse them further work.

It is stated that one-third of the three million dollar appropriation recently offered in Congress for use in the eradication of bovine tuberculosis is to go for the salaries and expenses of employees in that particular department. Quite a large sum of money to contemplate when we consider that in addition we must be taxed to pay our local county veterinarian who does the real work. After a little inquiry as to what becomes of that million dollars, one may well wonder if the whole scheme

(Continued on page 84)

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Mich.	N. Antrim	June	G. H.	66.9	H. Black
"	Leelanau	"	R. H.	78.4	R. Lautner
"	Ionia—L. Od.	"	R. H.	83.4	H. E. Brovont
"	Genesee 6	"	G. H.	67.5	S. A. Zink
"	N. Allegan	"	G. G.	62.0	J. Norgaard
"	Lans.-Ingham	"	R. H.	78.4	H. D. Box
"	Les.-Ingham	"	G. H.	78.0	T. J. Brownlee
"	Gogebic	"	R. G.	70.4	C. J. Olson
"	Ionia-Belding	"	G. H.	89.6	Ionia St. Hos.
"	St. Clair 2	"	G. H.	69.4	A. Richter
Ore.	Columbia	"	R. J.	76.5	J. O. Conville
Colo.	Johnstown	"	R. H.	86.7	Weigandt & Stewart
Ida.	Ada Co.	"	G. H.	71.2	C. W. Monlux
Minn.	Kanabec 1	"	R. H.	92.3	A. J. Hageman
"	Blue Earth 2	"	G. G.	73.8	Nelson & Mutch
"	Pine Co.	"	G. H.	66.8	C. E. Carlson
Ohio	Tri.-Co.	"	R. H.	70.9	W. H. Koch
Calif.	Chino-Ont.	"	G. G.	75.0	Brockmeier Bros.
Wash.	Snohomish	"	G. H.	86.8	Monroe Ref.
"	Gray's Har.	"	R. J.	68.3	H. B. King
Penn.	C. Penn. G. Br.	"		75.2	P. J. Cox
Md.	N. Montgomery	"	G. H.	75.6	C. Wachter
"	U.Montgomery	"	R. H.	79.6	M. Rice
Mich.	Grass L.-Jack.	"	G. H.	81.5	M. L. Noon
Iowa	Floyd Co.	"		70.8	C. Ellis
Va.	Fairfax 1	"	G. H.	80.5	M. Perkins
Wis.	Reedsburg-La V.	"	R. H.	73.0	J. Smith
"	Denmark	"	R. H.	77.3	L. J. Larson
"	Gr. Bay-De Pere	"	N.	76.1	M. Zelten
"	Tomahawk	"	R. H.	76.6	Lincoln Co. Home
"	Maiden Rock	"	G. D.	69.0	T. Carpenter
"	Spring Valley	"	G. G.	81.5	R. Rudesill
"	Ellsworth	"	G. G.	72.0	A. H. Kline
Ind.	Culver	June	R. H.	90.3	J. A. Newman
Ia.	Linn Co. 2	"	R. H.	78.2	E. J. Gilmore
Mich.	No. Eaton	"	R. H.	71.2	J. B. Strange
"	E. Oceana	"	G. J.	62.8	E. L. Lewis
"	Big Rapids	"	R. J.	62.1	G. R. Sapp
"	So. Eaton	"	G. D.	63.4	L. P. Smith
"	N. Gratiot	"	G. J.	98.0	G. Davis
Mo.	Marion-Ralls	"	G. J.	65.3	S. Flowerree
"	Law.-Barry	May	R. H.	65.6	Mo. St. San.
Ia.	Dubuque 3	June	G. J.	71.2	C. A. Hamil
Wis.	Clintonville	"	G. J.	68.5	L. Matteson
"	Beloit	"	G. H.	77.8	Rockwell & Katterhenry
"	Holl.-Morrison	"	G. G.	64.3	J. Schultz
"	Cross Plains	"	R. H.	69.0	G. P. Noll
"	Tay.-Blair	July	G. G.	62.3	O. Borsheim
"	Ft. Atkinson	"	G. G.	55.4	Krueger & Johnson

Association Notes by Testers

Leelanau Co., Mich.: A Better Sire Day was held June 14 and the Farmers' Club June 19. One farm was tested for acidity. Two members feed grain with pasture. The creamery paid 40 cents per lb. for fat in June. Milk retailed for 10 cents per quart.—L. DeYoung.

North Antrim, Mich.: The average producton of 273 cows tested in June was 810.48 lbs. milk, 32.84 lbs. fat; value of product, $12.50; cost of feed, $2.30; net value of product, $10.20; returns for each dollar spent in feed, $5.40; cost per pound fat, 7 cents; cost per cwt. of milk, 27 cents. Fifty-two cows produced over 40 lbs. fat; 13 over 50 lbs. Twelve members weigh milk daily and 20 feed grain. Six separators were tested. Nine new cows were entered. This association has the excellent practice of charging all the cows at the same rates for feeds. This makes it possible to compare cows on a common basis where different methods are employed.—G. G. Mullett.

North Allegan, Mich.: The average of 293 cows tested, 13 of which were dry, was 818 lbs. milk, 29.9 lbs. fat. F. W. Miller's herd of 12 grade Holsteins and Jerseys had the highest fat average of 43 lbs.; milk, 909.7 lbs. Market milk sold for $2.20—$2.60 per cwt. in Grand Rapids; sweet cream, 44—45 cents; sour cream, 39—40 cents.—C. L. Fleming.

Lansing—Ingham, Mich.: One new portable milking machine was purchased. All herds have been tuberculin tested and all members use pure-bred sires. Market milk sold for $1.65 per cwt. The condensery paid $1.55 for 3.5 per cent milk; the cheese factory, $1.60; the creamery, $1.80. Milk retailed for 10 cents per quart.—R. C. Kuhn.

Ada Co., Ida.: One inefficient separator was found. Market milk sold for $2.25 per cwt. The condensery paid 43 cents per lb. for fat; the creamery, 39 cents.—T. E. Maberly.

Columbia, Ore.: Butterfat trend is upward. Milk is not rising in price but indications are for a rise very soon as pastures are dry and production short. Market milk sold for $2.05 per cwt.; sweet cream, 43 cents per lb. for fat; sour cream, 36 cents. The cheese factory paid 44 cents per lb. for fat.—W. T. Noble.

Tri-Co., Ohio: Of the 219 cows tested, 41 produced over 40 lbs. fat, 10 over 50 lbs., 4 over 60 lbs., and 2 over 70 lbs. Twenty-seven cows produced over 1,000 lbs. milk. The average production for the month of June was 653.2 lbs. milk, 33.6 lbs. fat. Two herds averaged over 40 lbs. fat. The Belmont County Jersey Cattle Club planned a tour in this section. Ten automobiles, loaded with people and camping outfits, motored north to Columbiana and Mahoning Counties where they visited a few choice herds. The last stop on the tour was attending an Ohio Jersey Cattle Club sale at Columbiana at which 70 head of Jerseys sold at an average price of $155.—E. A. Mizer.

Snohomish Co., Wash.: Three new herds joined the association in June. One milking machine was installed. Thirteen members out of a total of 45 now use milking machines. Market milk testing 3.8 per cent sold for $2.00 per cwt.; 3.6 per cent milk sold for $2.50 in Seattle. The condensery paid $1.75 per cwt. for milk, the creamery, 40 cents per lb. for fat. Milk retailed for 10 cents per quart.—D. L. Saunders.

Gray's Harbor, Wash.: Two new barns are being built. Sixteen members started feeding bone meal. The cheese factory paid 50 cents per lb. for fat. Milk retailed for 16 cents per quart; butter, 50 cents per lb.—F. R. Haynes.

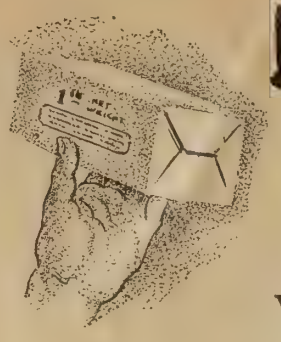
Floyd Co., Ia.: During June 7 members sold mostly whole milk and 5 sold all whole milk. Eighteen separators were tested and these 18 owners lost 283.2 lbs. fat. This, valued at 40 cents per lb., means a loss of $1,133.20 per month. If only one-tenth of this loss were eliminated, during 10 months enough money would be saved to pay the tester's wages for one year. One barn was whitewashed and one new milking machine was installed. There are 6 milking machines on 26 farms.—J. B. Day.

Tomahawk, Wis.: The 418 cows tested in June averaged 32.3 lbs. fat. Twenty-three cows produced over 50 lbs. fat. Poor pastures are being supplemented with grain. Several members are trying out either alfalfa or soy beans. All members either own or use a pure-bred bull. Milk retailed at 10 cents per quart; butter, 45 cents per lb.; cheese, 27 cents.—W. S. Schneider.

Grass Lake—Jackson, Mich.: This association re-organized June 1. Alfalfa is the principal crop grown. Five members use milking machines. About half of them feed grain or alfalfa or silage. Others are going to start this month. Due to the amount of rainfall, pastures are good generally.—R. A. Hubbell.

Fairfax Co. No. 1, Va.: In June 17 cows were on the 50-lb.-or-better Honor Roll and 88 made 40 lbs. or more fat out of the 599 cows in 25 herds visited. The herd of I. L. Harrison, numbering 13 cows, showed the highest average fat production of 38.5 lbs. Liberal grain feeding of cows on pasture was noted throughout the association. Three members are supplementing pasture with silage which the cows eat readily and

(Continued on page 87)



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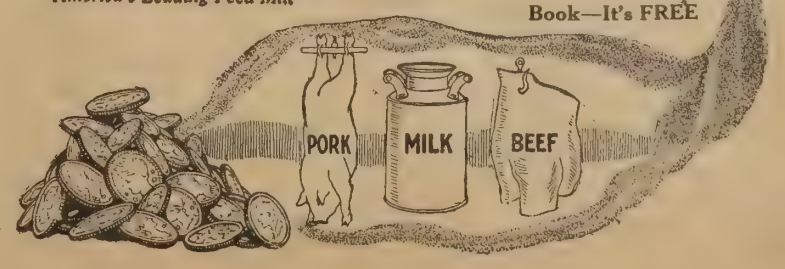
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Coming Events

Sept. 14-20—Eastern States Exposition at Springfield, Mass.
Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.
Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.
Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.
Nov. 1-8—Pacific International Live Stock Exposition, Portland, Ore.

The University of Montana is planning to exhibit the world's largest 10-year-old producer, Grace Koningen, at the National Dairy Show. In addition one of the old time Longhorns that roamed the Montana prairies 50 years ago, is coming by way of contrast. A supply of dairy crops will be shown and a large state delegation will make the trip to Milwaukee.

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

Washington, July 29—One of the annual events in agricultural circles in Washington is the issue of the Agricultural Department Year Book. This is one of the big jobs of the Government Printing Office. The 1923 book reached your correspondent through the courtesy of a member of Congress the last Monday in July. The copies to be distributed direct from the Department of Agriculture had not yet put in an appearance.

Dairying had a major place in the 1922 book, it receives only cursory mention in the 1923 edition. This is because the present secretary established a precedent of treating the major farm operations in a series of extended treatises to cover the four year books of his four-year term and dairying was reached in the second book. This year the major topics are Sugar, The Sheep Industry, Our Forage Resources, Land Utilization, and Farm Ownership and Tenancy, with a special article not planned when the original plan was laid out on "The Wheat Situation". In addition to these important topics, there is an even more complete statistical abstract of agricultural and related facts than usual, and a full text of the report of the secretary, which deals in very direct fashion with the difficult economic position of the farming industry last year.

Two important phases of the live stock and dairy work of the Department were judged by the secretary to be of sufficiently wide interest to be specifically considered in his report to the President, the development of the war against bovine tuberculosis, and the effectiveness of the activities directed at better breeding and better feeding. His statement shows that as the result of a questionnaire study of the dairy industry the cost of grains, specifically "the cost of protein", represented more than half of the feeding difficulties noted by the answers received. The study, he states, shows that pure-bred live stock showed greater gains when put upon better rations than scrub stock treated in the same way, the superiority of the improved stock as measured by financial returns amounting to 39.6 per cent over common stock.

Reports received by the Department of Commerce indicate a rapidly growing increase in shipments of Danish butter to Germany. In some ways this is looked on as a real indication of resumption of normal purchasing ability in Germany and renewed economic strength. Should this prove to be the case it may materially affect the flow of butter from Denmark to the United States this coming winter and spring.

Reports from the Tariff Commission indicate that there is a real effort to hasten the butter tariff investigation, for a report to the President by October. Investigators have already gone to Denmark which is "the country of chief foreign competition" specified by the law for determination of production costs to be compared to domestic costs.

New York Notes

HOARD'S DAIRYMAN:—There is less corn grown here this year than for some time. One good farmer whom I talked with just now has no corn at all. Last year he grew more than usual and it helped out mightily. It carried the stock through to grass this spring while without it there would not have been enough feed.



NOTABLES AT THE SECOND ANNUAL SUMMER PICNIC OF MICHIGAN HOLSTEIN BREEDERS

Reading right to left: J. E. Burnett, Asso. Professor Dairy Husbandry, Michigan Agricultural College; D. D. Aitken, Ex-pres. Holstein Ass'n. of America; J. E. McWilliams, Manager Dairy Dept. Detroit Creamery Co. Farms; R. E. Haeger, Holstein judge; H. W. Norton, Jr., Director Animal Industry for Michigan; C. M. Long, Extension Service Holstein Ass'n. of America; O. E. Reed, Head of Dairy Dept., Michigan Agricultural College; R. J. Baldwin, Director of Extension, Michigan Agricultural College.

This season he has a little less stock and the season was late so that plowing and planting could not be done in time. Besides, it seemed favorable for a grass crop and there was opportunity to earn money by working at building in town so the corn was left out. It may have been some risk but it is now found that the barn will be full of hay and the corn not needed to feed as roughage. There is less corn, more hay, and more money earned by working in town. Years ago I doubted the advisability of a farmer working for wages away from home but times have changed. Many farmers cannot arrange their home work so that they can leave for work elsewhere but some can and it pays. In this case that I have mentioned the farmer was able to care for his stock and earn about ninety dollars one month this spring.

Our farmers frequently are the ones wanted for town jobs. They know how to do most work and they work with greater interest. Sometimes, as in the case stated, they get higher wages. This man did the work of two partly because he tried to make the work count and partly for the reason that he knew how to make every motion count. On one job the owner objected to the wages and hired two men to take the place and finally got the third for the afternoon. He wanted the farmer back the next day. And yet you will find many people in town who talk that farmers would be all right if they would really work and cease talking about low prices.

In spite of the apparent breakdown of the committees on milk prices, I cannot feel that the meetings of the committees have been bad features. I know that it has brought criticism and some of it where it does not belong but I think that it has opened up conditions to view in a way that will in the long run be beneficial. There is a vast amount of misunderstanding as has been the case all along; yet as the days pass the real truth of milk prices seems to be coming to the surface. It is pretty sure that other conferences will be held, it seems to me. Indeed, one is now scheduled for August ninth. The state dairymen's association is in this as are also the Holstein breeders of the state. No high prices for milk are in sight but a better understanding for organization perhaps.

New York. H. H. LYON.

Fire Destroys Plant

We are in receipt of the following telegram from O. M. Plummer, General Manager of the Pacific International Exposition:

"The 10-acre plant of the Pacific International Live Stock Exposition was entirely destroyed by fire July 23. The loss amounts to one-half million dollars, which is fairly well covered by insurance. Reconstruction of this building will begin immediately and the Exposition for 1924 will be held as usual. The dates are November 1st to 8th, inclusive. It will be bigger and better than former expositions. We feel sure that what now appears to be a misfortune will be a blessing in disguise in that it will bring together more firmly the breeders and business men of this country and make them realize to a still greater degree the value of the Live Stock Exposition to the live stock industry of this great country. We call upon the breeders and exhibitors everywhere to show their faith in our institution by making a bigger and better show than they have ever done before."

Uncle Ab says that many a time it's better to do a thing than to be an expert on how it ought to be done.

Wisconsin Dairy Statistics for the Year 1923

	Pounds	Received for or valued at
Cheese produced in factories, other than cottage, skimmilk, cheese curd, cooked, buttermilk, and cream cheese	343,313,245	$ 77,433,752.7
Cottage, skimmilk, cheese curd, cooked, buttermilk and cream cheese	5,570,002	368,438.7
Cheese produced on farms	308,117	98,599.0
Butter produced in factories	147,823,584	66,388,231.3
Farm made butter	8,666,037	4,733,556.0
Condensery products:		
Evaporated, condensed, powdered, concentrated milk, and evaporated cream	412,134,253	38,581,438.1
Evaporated, concentrated, powdered, and condensed skimmilk	6,297,697	189,124.5
Value of milk used in manufacture of malted milk, etc.		1,433,891.0
Ice cream (gallons)	6,031,996	6,260,250.4
Milk produced other than furnished cheese factories, butter factories, condenseries, and ice cream plants, (pints)	960,621,235	28,818,637.0
Skimmilk	2,808,699,346	10,953,927.2
Whey	3,191,292,487	6,223,020.3
Estimated value of milk and cream shipped to Chicago, St. Paul, Minneapolis, Dubuque, and other points outside of Wisconsin	276,936,482	5,732,585.1
Total		$247,215,451.9

SILO FILLER TESTS

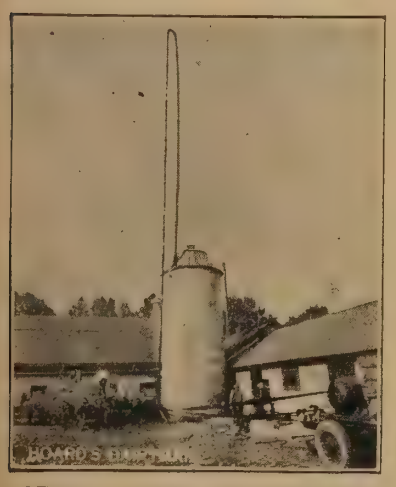
THE efficiency of silo filling machines came under the careful scrutiny of the agricultural engineering staff at the Wisconsin College of Agriculture last fall. As a result of these trials the future will see increased efficiency in the outfits and saving to farmers using them due primarily to this intensive investigation. F. W. Duffee, who directed the tests, figures that Wisconsin farmers who yearly elevate some million tons of silage into one hundred thousand odd silos will be saved about one-third of a million dollars annually as a result of these trials.

Co-operating with fourteen manufacturers of silo filling outfits the Wisconsin engineers had twenty different machines under observation to determine the draft of the cutters, the advantage of anti-friction bearings, the power necessary to elevate ensilage to different heights, and the power required for the separate operations of cutting and blowing. As the investigations went along an unexpected factor entered into the work, mainly the relationship between the speed of the cutter, the tonnage per hour, and the amount of power. As a result of these trials some manufacturers are making changes both of major and minor nature in the design and make-up of their machines to enable them to operate on a more efficient basis.

When the final reckoning was made the results showed that the difference which exists between the power requirements of different machines was due primarily to perfection of design rather than type. It was impossible to base any definite conclusions on these tests with reference to the advisability and advantages of anti-friction bearings in silo filling outfits.

With the speed and capacity of a machine remaining the same, the investigations disclosed that the power requirements increase gradually and slowly as the height of elevation increases. By checking it was found that the power requirements of a certain machine, whose capacity was about 15 tons to the hour, was 1.606 H. P. hours a ton at a 100-foot elevation as compared to 1.436 H. P. hours per ton at 30-foot elevation. On this basis the increase in power required, as compared to a 30-foot elevation, was 11.9 per cent greater cutting dry corn.

The relation between the R. P. M. capacity and power requirements was one of the outstanding revelations of this series of tests. In machines of 14 inches and larger, men are the limiting factor at speeds in excess of 575 to 600 R. P. M. This is on the usual basis with two men throwing off the load. The capacity in tons per hour was actually decreased in several instances where the machine was speeded up. This in all probability was due to the psychological effect upon the workmen.



TESTING POWER REQUIREMENTS AT A 100-FT. HEIGHT

In their haste to keep the machine working to capacity under the increased speed, they worked against themselves and much wasted effort resulted. When this test was repeated several times, similar results were obtained.

Another important observation regarding the power requirements for high versus low speeds was that at the higher speeds there was an extremely wide fluctuation in power requirements. Observation of the ammeter connected on the line to the motor revealed the fact that loads in excess of 40 H. P. and lasting for a few seconds were not uncommon when operating a 16-inch machine at 706 R. P. M. While at the slower speeds these peak loads are not nearly so high and the load is more uniform—a desirable condition.

The question naturally arises as to whether a machine will elevate properly under practically any and all conditions at this slow speed. The data shows that two machines elevated dry corn 100 feet at 662 and 670 R. P. M. respectively. This indicates that if a machine is properly designed it will elevate into silos of ordinary heights at 500 to 600 R. P. M. However, these reduced speeds must not be adopted until it is absolutely certain that the machine will elevate under ordinary adverse conditions. Further, it will probably be hard to convince a great many farmers that the capacity at the slower speeds is as great as at higher speeds, as machines are ordinarily fed.

With the smaller machines the capacity of the machines seems to be the limiting factor with two men throwing off and therefore the capacity is about in proportion to the speed. That this same thing is true of larger machines when they are fed to capacity is demonstrated by referring to one of the tests where a capacity of 22.1 tons of dry corn per hour was secured at 760 R. P. M. This was done by throwing off part of the load into two piles, one on each side of the feed table. Four men threw on to the feed table and two or three were helping feed.—Wisconsin College of Agriculture.

Cost of Area Test Work

The Wisconsin Department of Agriculture keeps an exact record of the cost of doing area work and has recently issued a statement showing what it cost to test all the cattle in Clarke County. It must be remembered that the exact cost cannot be determined, but the following figures are the approximate cost of testing all the cattle in Clark County:

Salaries of veterinarians	$9,080.82
Salaries of clerks and assistants	685.22
Expenses of veterinarians (Including clerks)	4,517.11
Storage, gasoline, and oil	147.24
Telephone and telegraph	106.51
Miscellaneous (Hire for horses and equipment)	2,244.07
Ear-tags	2,231.63
Tuberculin	267.79
Total	$19,280.39
Total number cattle tested	89,265
Total number herds	5,273
Total number reactors	1,604
Total number infected herds	768
Total number cattle in Inf. herds	16.782
Total number pure-bred cattle tested	3,637
Estimated average cost per head	22c
Per cent of infected cattle	1.8
Per cent of herds infected	15.0

Northwest Conference

Plans for a northwest-wide agricultural conference, to be held at the Minnesota state fair grounds on Thursday, September 4, are now under way. The main topic slated for discussion is the future of dairying and diversified farming in the Northwest. Governor Preus has invited over 700 municipalities to appoint from one to three delegates to represent their communities at the conference. It is expected that nearly 1,500 delegates will attend this conference for the purpose of encouraging increased diversification of crops in the Northwest.

Eastern States Exposition

Ninety-six thousand dollars, a record premium offering, will be distributed in cash awards at the annual Eastern States Exposition from Sept. 14th to 20th inclusive, detailed announcement of awards and classifications being contained in the Exposition premium list.

Total cash premiums in the several cattle divisions will amount to $28,685. In the swine department a total of $3,810 is offered and in the draft horse department there will be cash awards of $6,105. There have been increases in the prize offerings for sheep, the 1924 total being $4,206; while in the horse show classifications, these being the awards for the Springfield Horse Show conducted under the direction of the Exposition, the total offered in cash is $17,495 in addition to numerous specials and plate.

Massachusetts. J. H. FIFIELD.

FOR SALE

Well Improved 360-acre Farm in Central Michigan at Nearly $20,000 Below Appraised Value



This 360-acre farm is located in the central part of Michigan, in Isabella County, four miles south of Clare and 12 miles north of Mt. Pleasant, the County Seat. It is in a prosperous and well improved farming community. Excellent gravel roads and interurban service. School and churches at Rosebush, a nearby village.

Mt. Pleasant, a city of over 5000, is made prosperous through surrounding farming, dairy and stock breeding industries. It has a good high school, a large government school and a central State normal school.

The Ann Arbor railroad passes through part of the farm with a railroad stop and loading switch on the farm.

The soil is a clay loam, light to dark chocolate in color.

Its crops are sugar beets, alfalfa, clover, timothy, wheat, oats, rye, peas, beans, silage, corn and fruit.

The lay of the farm is generally smooth and gently sloping. There are three very good orchards, mostly of apples, in fine bearing condition, on about 7½ acres.

BUILDINGS: There are three houses. The main house has 12 rooms, hardwood finish, concrete basement under entire house, hot air heating system, commercial gas lights and gas for cooking. The main barn is built in L shape, each part being 50 by 100 feet with full basement under all, solid cement floors and walls, patent stanchions, 8 horse stalls, 4 box stalls, feed bins, harness rooms, large cement water tank in basement and several large departments for stock. There is a 200-ton concrete silo with frame lumber. There are two other houses, 3 other barns, 2 hog houses, 2 chicken houses, ice house, wood house, creamery and brick smoke house.

An Appraisal Company, selected by the Michigan Dairies Company, appraised the buildings at $45,000.00 less 25% depreciation, making a net value of the buildings $33,750.00 and 360 acres of land without buildings at $36,000.00, making a total net valuation of $69,750.00.

The owner, a practicing dentist in Milwaukee, Wisconsin, is anxious to sell and offers this farm for $50,000.00. Terms ½ cash, balance on long time, 6% mortgage.

For further particulars, address

DR. J. A. BOWMAN, 428 Grand Ave., Milwaukee, Wisconsin

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EDITORIAL COMMENT



NATIONAL DAIRY EXPOSITION

The National Dairy Exposition, in Milwaukee September 27 to October 4, will be held somewhat differently than in former years. At the Auditorium, located in the heart or Milwaukee, will be displayed machinery and supplies for the milk plant, creamery, ice cream factory, cheese factory, and milk powder and condensed milk plants. In short, all articles used in handling milk and manufacturing it into various kinds of dairy products will be on exhibition. At the fair grounds, some distance away, will be found the pure-bred dairy and grade cattle. Farm machinery, barn equipment, and dairy farm supplies will also be on exhibition at the fair grounds. The judging contests by agricultural college students, boys' and girls' contests and demonstrations, and amateur cattle judging contests in which dairy farmers will participate, will be held at the fair grounds. The exhibits at the fair grounds will be more for the dairy farmer and those interested in production, while the exhibits at the auditorium will be of more interest to those engaged in the manufacture of dairy products.

The Dairy Exposition has grown to be such a mammoth institution, carrying so many educational exhibits and demonstrations, that it is not possible to find one building in this country that will house all its various activities.

BIG BUSINESS

It is not uncommon to find persons against any business that is big. It does not matter to them how efficient and honest and useful the business may be—if it is big, it is bad. They think laws should be enacted making it difficult for such institutions to exist. This is, of course, false reasoning.

A business may be large and honest and a business may be small and dishonest. A business should not be measured by its size, but by the kind of service it renders and whether it is fair in its operations.

The New York Dairymen's League, a farmer-owned, co-operative institution, has become a big business. In 1923 it did a total business of over $75,000,000. What will the misguided people say regarding this farm organization which is owned by the men producing milk and marketing their product co-operatively? The purpose of this institution is to get better prices for the producer, which all agree he is entitled to, especially the last few years. The Dairymen's League has tried to market its members' product efficiently and by rendering this service it has committed no crime, even though it did transact over $75,000,000 worth of business in 1923.

We will not get very far in solving our agricultural problems or in establishing proper relations between all industries by decrying an institution because it is large. What every honest and just man is interested in is to have all individuals and all institutions conduct their affairs upon an honest basis, to be efficient, and not exact the "pound of flesh".

PRICES OF FARM PRODUCTS ADVANCE

We recently met a farmer who takes rather a gloomy view of agricultural conditions. We said to him:

"John, the farmers ought to be feeling more optimistic and encouraged for the prices of wheat, hogs, and corn have made substantial gains in the past thirty days."

His face did not reveal any satisfaction over the advance in the prices of these products which have been selling too cheap, but he said:

"I don't see how the farmer will be benefited very much, for all the wheat is in the hands of the speculator."

"How is that?" we queried. "Harvesting has not started in the spring wheat section of this country and such states as Kansas and Nebraska are right in the middle of wheat harvesting and threshing has only well begun."

The farmer has every reason to take a more optimistic view of his vocation. The thinking farmers, with whom we have come in contact the last thirty days, show a decided improvement in state of mind. They observe advances in prices of wheat, corn, and hogs and comprehend their meaning. Even men who do not raise these crops feel good over the improvement of prices for they know they will indirectly affect the prices of dairy products.

Some rather bad spots here and there are to be found throughout the dairy industry. A number of cities have had an overproduction of market milk. In some cheese sections the prices of certain types of cheese have sold at low prices. Taking it on a whole, however, the dairy industry has held a rather enviable position. The prices of creamery butter, during the months of June and July, have been good and well managed creameries will pay in the month of July in the neighborhood of 40 cents a pound for fat.

Prices of hogs, wheat, and corn have reached a level which should bring encouragement and satisfaction to all farmers. Hogs sold in Chicago on July 28 for $10.50; wheat, $1.40; and corn, $1.10.

Let us be optimistic over the change for better conditions for agriculture and not blindly state that the wheat is in the hands of the speculator.

E. S. BRIGHAM

We regret that Hon. E. S. Brigham has tendered his resignation as Commissioner of Agriculture of Vermont, which position he has held for the past eight years, to become a candidate for Congress. The farmers of Vermont can ill afford to lose the service of a man who is so sound in his agricultural ideas, so practical in their application, and, with it all, trustworthy and honest.

Mr. Brigham is not only a good executive and understands the farmers' problems, but he operates a successful farm of his own near St. Albans. A visit to his place will reveal that he not only understands the theory and practice of agriculture but he knows how to make farming pay. His farm has paid good dividends all through the present period of agricultural depression. He knows that to make money on the farm something better than the ordinary must be followed; his cows must yield a little more than the average; his acres must produce more than the average; and the crops grown must be those that will be in demand in the market and they must be graded and prepared in such a way as to bring the best prices.

A man able to organize his own business, especially a farm, and have it pay good dividends is an unusual executive and a most thorough student of farming. He is the kind needed in positions of leadership, for agriculture is suffering today because we do not have a sufficient number of capable leaders—those that not only understand the successful operation of farms but also understand the farmer's problems as they relate to preparing his products for market and marketing them co-operatively. Mr. Brigham, from the time he has taken this office, has devoted himself to studying ways and means of getting the farmer in position to process his own products, to prepare them for market, and to market them co-operatively. He has been a true friend of co-operation for he has outlined practices which could be followed and would succeed and at the same time keep the farmer in direct control of his own affairs.

His work in behalf of tuberculosis eradication has been outstanding. He has had his battles with those who are against the tuberculin test and has won. The thinking farmers followed his leadership, and good work is being done in Vermont in freeing its herds from tuberculosis.

The agriculture of this country needs more men like Mr. Brigham in Congress and he may be able to render as great a service there and perhaps more than he has as Commissioner of Agriculture in Vermont. Nevertheless, with a man so well equipped for discharging the duties of commissioner of agriculture, we regret he is leaving this position.

REASONS AGAINST T. B. TESTING

Elsewhere in this issue will be found an article by one of our Illinois subscribers, entitled "A Dozen Reasons Against T. B. Testing". Those who read this communication and who understand the nature of bovine tuberculosis, the limitation of the tuberculin test, and the mistakes which have been made in its application, will have no difficulty in understanding why this dairy farmer gives a dozen reasons in his mind against the tuberculin testing of cattle. It is plain as a basis of his objections he is taking exceptional instances and errors which have been made and of incapable and dishonest work of those who have applied the test. The unfortunate thing about his position is that it is based upon wrong premises.

For a period of more than twenty years dairy farmers in the Chicago milk territory have listened to unsound advice regarding the tuberculin test and tuberculosis. It is well for the dairy farmers in that section that these men who have been making misleading statements and who have been poisoning their minds against the tuberculin test, are fast losing their grip, for several counties in that territory have made and are making area tests.

The tuberculin test is not 100% accurate. Those best informed do not make any such claim for it. It has been shown repeatedly that the tuberculin test, in competent hands and honestly interpreted, is better than 95% accurate. No one denies that when an animal has a generalized case of tuberculosis it may fail to react to the tuberculin test, but the competent veterinarian can invariably locate such animals and will have them removed upon physical examination.

We feel the danger of transmitting the bovine type of tuberculosis to human beings has been over-stated. On the other hand, scientists, whom we consider wholly reliable, have found human beings suffering from the bovine type of tuberculosis. If we disregard the health side of tuberculosis eradication and consider it wholly from the standpoint of profit, the dairy farmer cannot afford to keep this disease on his farm. It is to his interest very largely that tuberculosis be eradicated. It is unnecessary to make misstatements regarding indemnities or misstatements in any respect. What should be given the uninformed man is accurate information concerning tuberculosis and a simple outline of how to proceed to eradicate it.

We have made a close study of this disease for more than thirty years and we know that when capable men are placed in charge of tuberculosis eradication work, splendid results follow. We know, too, that when a dairy farmer or breeder once frees his herd from tuberculosis he is not indifferent to keeping it clean. Our Illinois subscriber cites twelve so-called reasons against tuberculin testing. Now will someone cite one reason why the dairy farmer should keep a diseased herd of cattle?

Does Milk Increase with Decrease in Test?

I was very much interested in the articles on "Why Tests Vary" in the issues of May 2 and May 30. I wonder if the weights of the milk vary the same as the test in the table published in the May 30th issue.

It has been my experience that the butterfat yield per day is fairly constant; that is, if the test is a little higher than the average, the amount of milk will decrease proportionately.

I would like to see some figures published comparing the record of the cow testing association with official tests made for the same period. Do

not the average tests of the association's records check very closely with official tests?

Spokane, Wash. G. W. H.

Mr. G. R. Rice has given us the following reply to the first part of this inquiry:

"The tests quoted in the article mentioned were made of the total daily shipments of individual producers into this market. The amounts shipped are fairly constant for the test period, being the total daily production of the herds tested.

"There is naturally some variation in weights due to the fact that attempt is made to ship only full cans. The following shows the daily weights, tests, and pounds fat of one herd, which is typical of all:

June	Milk	Test	Fat
	lbs.	%	lbs.
9	328	3.50	11.48
10	381	3.30	12.57
11	330	3.25	10.72
12	332	3.25	10.79
13	327	3.30	10.79
14	320	3.30	10.56
15	324	3.40	11.02
16	314	3.30	10.36
17	304	3.20	9.73
18	303	3.30	10.00

"Weather seems to affect test materially. The June 16 test was generally low, following the severe electrical and rain storm the previous night in this section; the cows were out in the pastures during the storm. The variation in test will not be so marked in those sections not subject to great atmospheric disturbances, is my belief."

We would appreciate other replies to the inquiries by G. W. H.

Finds Sweet Clover Good

HOARD'S DAIRYMAN:—I have been interested in Mr. Fraser's articles on Ever Failing and Never Failing Pasture.

We have about 80 acres of western rye and native or wild grass pasture that 9 head of cattle and 32 horses grazed pretty close before a 10-acre field of sweet clover got large enough to graze. For the past six weeks we have had a dry spell and grass pastures are very brown, but on the sweet clover our stock have done fine. The cows give a full flow even though resting much of the time. The sweet clover is from 4 to 12 inches high and the 10 acres give more feed than the 80 acres of grass. Our alfalfa does not furnish the production the sweet clover does.

Newville, North Dakota. W. P. M.

Brown Curing Alfalfa

I note in your letter from Edw. Hoverson that he has had success by mowing alfalfa when free from dew, allowing it to wilt 2 or 3 hours, and then storing it away as quickly as possible.

This is very interesting, not alone from the point of view of saving all the leaves, but also if it is a thoroughly practical way of making hay it would save us a great deal of loss due to frequent showers.

Would you kindly advise us of your opinion of this method of making hay? I note that Mr. Hoverson states there is no danger from mildew or otherwise if the product is free from rain or dew.

Maryland. R. R. M.

There is little that we can add to Mr. Hoverson's statement concerning the curing of alfalfa hay other than to refer to Professor Graber's article of several weeks ago in which he discussed various methods of making alfalfa hay. In this discussion he described the method followed by Mr. Michels of Wisconsin, which is similar to that followed by Mr. Hoverson.

The making of brown alfalfa hay has been discussed several times in Hoard's Dairyman and those who have written us are very enthusiastic over it. We have been convinced from letters and personal conversation that this method of curing gives an excellent quality of hay. We have been tempted to try out this method on our own farm but confess to some timidity in putting this green material in the large barn which houses our stock. We are theoretically convinced that it will do no damage through spontaneous combustion, but are sufficiently conservative to hesitate to put away our fears for the sake of our faith.

The brown or tobacco cured hay is very appetizing and in our own experience we have found that cows would eat it eagerly. That is, we have occasionally had small spots of this hay in our mow that would come out a dark brown and with a smell much like honey. The cows would eat it with avidity. Scientists tells us that the fermentation through which this hay passes, destroys a certain amount of its nutrients. We are not certain but that this loss may be compensated for, in whole or in part, by the increased palatability of the hay and the possibility that the nutrients may be rendered somewhat more digestible.

We have had growers in the alfalfa regions tell us that they like to sell their "pea green hay" and reserve for their own use the tobacco cured hay. They also tell us that if there is no external moisture on the hay, there is no danger of mold providing the hay has been evenly and thoroughly distributed in the mow or stack. In mowing away from the hay fork it is scarcely sufficient to merely let the hay pile up in the middle and then push it in great masses to the side. Care needs to be exercised that the hay is evenly distributed so that it will pack rather evenly. Preferably the hay should not be stored for a greater depth than 6 to 8 feet and, even though the hay gets very hot, it should not be opened up with a fork. We are told that to attempt to open it up may induce spontaneous combustion through the admission of air to the superheated material.

Summer Feeding of the Ton Litter

With a few more than fifty entrants in the 1924 Wisconsin Ton Litter Race, either past or approaching the halfway mark in the contest, all are determined to keep on fighting to the finish. The majority of the litters entered number from 10 to 12 pigs, and the dates of farrowing vary from March 3 to May 26. Most of the litters already have been weaned.

The owners of these prospective ton litters are now confronted with the problem of summer feeding for the maximum growth and gain in weight. Among the 1924 contestants are ten parties who were successful in producing ton litters last year. They will profit from past experience and, barring misfortune, should secure even better results this year.

A discussion of summer feeding of these litters should certainly include consideration of the methods employed by the successful 1923 contestants. One of the outstanding points to be noted in the management of the 1923 litters is the use of pasture. Of the seven litters qualifying in the state contest at Madison, six were raised on pasture. The first and second prize litters were grazed on good alfalfa pasture; of the others, two pastured on bluegrass, one on red clover, and the fourth on red clover followed by sudan grass.

Plans for this summer's pasture have already been carried out. Most of this year's litters are being raised on pasture and a wide variety of forage is in use. In cases where early pasture plantings have not done well or will not supply sufficient feed to finish the pigs, the best pasture to plant at this date will be Dwarf Essex rape broadcasted or drilled in rows at the rate of five pounds per acre.

Feed Proteins, Vitamins, and Minerals

Where pasture cannot be supplied and the litter is being raised entirely in dry lot, some feed must be furnished to supply the ration with proteins of proper quality, vitamins, and minerals. California's champion ton litter furnishes a good example. This litter of eleven pure-bred Poland Chinas, weighing 2,725 lbs. at 180 days, was raised in dry lot. But they were fed good quality alfalfa to the extent of three per cent of the dry feed in their ration. The protein and vitamin supply was further insured by feeding oil meal to the extent of 3.3 per cent of the dry ration and one-half of tankage. They also received skimmilk.

Even on excellent alfalfa pasture, Wisconsin's champion ton litter owners, R. Groth & Son, saw fit to feed a variety of protein feeds. From weaning time until four months of age, their litter received a mixture of 200 lbs. ground corn, 100 lbs. ground oats, and 30 lbs. tankage. They were fed all the whey they cared for and two pounds of oil meal daily in addition.

During the fifth month the oats was omitted and the tankage mixed with the ground corn alone in the proportion of 1 to 10. After five months the litter was fed a slop of two parts ground corn and one part of flour middlings in whey. To this was added tankage and oil meal, two pounds of each daily, and a little salt. In addition they were fed all the shelled corn they would clean up.

A ration so complete and varied as the above provides all the needs of the pig in the way of bulkiness, palatability, proteins, vitamins, and minerals. But such a wide variety of feeds is not entirely necessary for growing out a good ton litter. Mr. R. W. Higday, whose litter of thirteen pigs won second place at the Madison Show, had no dairy by-products available. His litter grazed in good alfalfa pasture all the time and was fed for the first three months a mixture of ground oats, middlings, Schumacher feed, hominy, and tankage. Then oats was omitted and old corn added until the pigs were on full feed. After five months of age they were full fed new ear corn in addition to the concentrate mixture.

Some Used These Last Year

A brief survey of the rations fed to the other successful ton litters show such combinations as the following:

(a) Oats 50, barley 30, middlings 100, bran 75, oil meal 15, salt, tankage, skimmilk, buttermilk, old corn.

(b) Ground oats 100, middlings 100, bran 100, oil meal 25, condensed buttermilk, salt, mineral mixture, and finished on new ear corn.

(c) Soaked shelled corn, flour middlings, oil meal, finished on new ear corn.

(d) Ground oats 55, ground barley 35, middlings 10, tankage 5, mineral mixture, and finished on ear corn.

(e) Schumacher feed, tankage, oil meal, and whey for first four months; then ground oats, barley, tankage, and whey, and finished on new corn.

Of the seven litters mentioned above, three were raised on self-feeders, three were slop-fed, and the first prize litter owners used both systems. Whether the 1924 ton litter men will employ self-feeding or hand-feeding will depend largely upon the kind of feeds used, equipment, and personal preference. Good results may be secured by either method as long as the pigs are fed the right kinds of feed in proper proportions.

Self Feeders Can Be Used

Free choice self-feeding will prove satisfactory with such feeds as corn and tankage or corn and a mixture of tankage and linseed meal. Where barley is fed instead of corn, the pigs will often overeat on tankage. In this case, it is more economical to mix the barley and protein supplement in proper proportions.

Where dairy by-products are available, they will be a big factor in growing a ton of pork in six months. Good buttermilk is equal to skimmilk in feeding value, but care must be taken to feed it under sanitary conditions. Whey is also of value for the pigs, especially in combination with barley. For younger pigs a protein rich supplement, such as linseed meal or wheat middlings, should be added to the barley and whey. Where corn and whey are fed, these supplements should be supplied for pigs of all ages. Both the whey and buttermilk should always be pasteurized at the factory and creamery to prevent spread of tuberculosis and other diseases.

Tankage Furnishes Protein

Where no dairy by-products are available, the best protein rich supplement along with pasture is a mixture of half linseed meal and half tankage. On dry lot 10 per cent of this mixture in the ration for 100- to 150-pound pigs and six to eight per cent for pigs over 150 pounds will be sufficient. On good, leguminous pasture only about half as much of the tankage mixture is needed. On good protein rich pasture, wheat middlings are a good supplement for corn and barley.

For young pigs, oats are excellent as a part of the ration, but are bulky and high in fiber for fattening pigs. They should form no more than a third of the concentrate mixture.

Where tankage or dairy by-products are fed along with good pasture, no mineral supplement except common salt will be needed. Salt may be self-fed if care is taken to prevent over-eating at first. Otherwise it had best be mixed with the concentrate mixture, one-half pound to 100 pounds.

Pigs Must Have Minerals

Where there is likelihood of deficiencies in the mineral supply, free acess to one of the following home mixed combinations will prove valuable:

(1) Equal parts by weight of ground limestone and salt or equal parts wood ashes and salt.

(2) Equal parts of ground limestone, salt, and either bone meal or ground rock phosphate.

(3) Nine parts of either bone meal or ground rock phosphate and one part tankage for flavoring.

Another point often neglected is that of an ample water supply. Automatic waterers have been used by some feeders to save labor and insure enough drinks for the ton litter.

With these precautions taken to meet all the needs of the pigs for health, growth, and rapid gains, the fifty Badger ton litters will manufacture many tons of pork in the next few months.—H. J. BRANT, Swine Extension Specialist, Wisconsin College of Agriculture.

Matador Segis Walker

MATADOR Segis Walker, senior herd sire at the Carnation Milk Co. Washington Farm, and an outstanding sire in present day Holstein history, died July 16, a 10-year-old bull.

Matador was purchased by the Carnation Stock Farms with the Geo. V. Leighton herd in 1915 but was little used until 1918 because his value was not appreciated until his first daughters came to milk.

Since that time he has had heavy service and has had altogether about 500 offspring, 256 of them daughters. There are now 211 daughters in the Carnation herds and with the opportunity being given them it is reasonable to expect him to become a double century sire. He is already a century sire.

Because his heaviest service was during recent years, but 16 of the daughters of Matador Segis Walker have been tested at full age and 60 have made their records as 2-year-olds. Seventy-five of these daughters have 7-day records above 20 lbs. butter and ten have produced from 30 lbs. to 34 lbs. butter on short time test.

Twenty-six Matador daughters have finished year records that average 21,822 lbs. milk, 707.76 lbs. fat (884.7 lbs. butter), 16 of them making their records as two and three-year-old heifers with first calf.

Matador Hengerveld Bess stands at the head of the list with 26,667.7 lbs. milk, containing 1031.76 lbs. butterfat (1289.7 lbs. butter). Six others have produced in excess of 800 lbs. fat (1000 lbs. butter) and only seven of the twenty-six have less than 20,000 lbs. milk for their year's production. These seven, it should be explained, were all first calf heifers.

Nor is their producing ability the only outstanding characteristic of the offspring of this great sire. Twenty-six daughters and fifteen sons as well as granddaughters and grandsons have been prize winners at the Pacific International, the National Dairy Show, and our larger state fairs, these in addition to sons that have been winners at county and district fairs in many sections.

Still another credit to this bull, and it is an exceedingly important one, is the fact that the daughters of his sons are doing very well where given an opportunity to prove their worth. Twelve daughters of his first son, King Segis Matador Walker, produced an average of 4000 lbs. more milk than did their dams at the same age and under the same conditions.

Matador Segis Walker not only was given an exceptional opportunity but he deserved it.

Matador Segis Walker and Some of His Daughters



SEGIS DAISY FERN 2ND
Year's record: 21,913.5 lbs. milk, 668.33 lbs. fat (835.41 lbs. butter) as a 2-year-old.



MATADOR SEGIS WALKER
Twenty-six of his daughters have finished year's records that average 21,822 lbs. milk, 707.76 lbs. fat.



SEGIS CLOTHILDE EMMA
Year's record: 28,801.9 lbs. milk, 932.5 lbs. fat (1,165.63 lbs. butter). Matador's heaviest milking daughter to date.



MATADOR MECHTHILDE VERA
Year's record. 27,488.6 lbs. milk, 935.64 lbs. fat (1,169.55 lbs. butter).



MAY WALKER SKYLARK
Year's record: 21,621.3 lbs. milk, 725.57 lbs. fat (906.96 lbs. butter).



CARNATION LIZZIE SEGIS WALKER
Year's record: 24,171.7 lbs. milk, 807.66 lbs. fat (1,009.58 lbs. butter).

Menu for Dairy Lunch

HOARD'S DAIRYMAN:—I have been present at a couple of banquets given by different branches of the dairy industry, that have jarred my slow thinking apparatus loose and set it in motion again.

Summed up, is not our capacity, our zeal, our value in the dairy business, yes, our very business itself, measured by the estimate we ourselves place on the industry? Many reasons are advanced why we do not eat more cheese. One reason may be due to the fact that the members and officers of the Wisconsin Cheesemakers' Association and allied association are not sufficiently interested in their work.

It seems to me that the various associations are all working at cross purposes As a cheesemaker I know the antagonism that exists between the butter and cheesemakers of Wisconsin. As a cheesemaker I do not have a great deal of love for the hand separator. If we want to get the industry on a sound basis we want to all pull together to increase consumption of dairy products, whether it means increasing consumption of whole milk, butter, cheese, or ice cream.

At the banquet given by the Wisconsin Cheesemakers' Association last January, two small pieces of cheese were served, and while they were excellent, an opportunity was neglected that I wish to call to the attention of the members. Many people do not realize the excellent dishes that can be made from cheese, and a banquet of this kind should be made mostly of dairy products; meat has no rightful place on the bill of fare at a dairy banquet. Possibly it might cost more, but I am sure there would be no objection to paying more. Numberless people that do not attend would do so for the novelty, and if properly handled would result in a great deal of good for the industry.

Recently at the Hamilton Club, Chicago, I attended a luncheon known as the dairy lunch. Why it was given this name is beyond me as only one dairy dish was served and that was ice cream. The address of the day was given over to a discussion of the consumption of dairy products, and if that luncheon were to be taken as an example of the way to increase the consumption of dairy products, we had best shoot at the moon. Either the menu should be changed or else the name of the lunch. Something is radically wrong when the biggest men in the industry will allow a thing of this kind to be called a dairy lunch.

Here are a few suggestions for a dairy lunch:

Milk and cheese soup
Cream of tomato soup
Macaroni and cheese
Baked potato and cheese
Cheese cake A La Mode
Milk Cocoa
Blanc Mange Rice Pudding
Junket Buttermilk

During the war the cottage cheese propaganda led to interesting incidents. At one place where supposed sausage was served, a prominent chemist refused to believe it contained no meat. Only a practical demonstration of the preparation and cooking of the dish convinced him. An engineer who attended a cottage cheese exhibit remarked, "These things are fine; why did we have to wait till the war time to have good things to eat?" When such things can be done with cottage cheese, how much can be done in the preparation of a meal where we have the entire range of dairy products to choose from.

To quote S. K. Robinson:

"Cheese is made up of the solid components found in milk, chiefly the proteins and the fats. Protein is a muscle and tissue builder and also furnishes large amounts of energy. Fat is the best body fuel—an ounce of fat will supply about two and a quarter times as much heat as starch. These same fats and proteins are just as cheaply supplied through cheese as they are through milk. The reason is obvious, cheese is made in Wisconsin, the greatest dairy state in the Union, where milk can be obtained at a much lower price than it can be had in the city, and so to obtain the two most important constituents of milk, namely the butterfat and casein, cheese is just as cheap a source as is milk itself."

Illinois. C. R. BARKER.

Long and Short Leases

Some of the evils of tenancy seem to come from the short time the average tenant remains on one farm and some advocate long time leases. Leases of longer duration are desirable but they will be an outcome of stable farm conditions rather than a cause of them. When owners are holding land with a view of selling at a proft, rather than as a permanent investment, they do not favor long time leases. Rapidly changing agricultural conditions also cause tenants to hesitate to obligate themselves to certain conditions for a period of years. Equitable leases that may be renewed from time to time seem to more nearly meet the needs of the times than long term leases. At present few leases run for more than three years and usually they are for one year only and renewable if both parties are satisfied.—N. D. Bulletin 171.

Alfalfa Increases in Wisconsin

There are 217 thousand acres of alfalfa in Wisconsin as compared with 70 thousand acres in 1919 and 18 thousand acres in 1909. Not only has the acreage increased, but the season has been excellent in most alfalfa regions and an unusual crop is being harvested.

IN THE DAY'S WORK

"Get Yourself Examined"

ELWOOD ERICKSON, NEW YORK

THIS striking injunction has been used effectively by an association aiming to extend the life span of the average American citizen. They tell us that many of our ills can be avoided if we will take them in hand on time, that every now and then we ought to have a thorough overhauling of our physical apparatus. If our automobile develops a knock or a groan, we take up the matter instantly. But the most delicate piece of mechanism in the world, the human body, is allowed to take care of itself.

Their theory is preventive. Look over the machine for defects before they begin to develop and correct those defects. A little defect persisted in after awhile becomes a huge accumulation of defect, "The little rift within the lute by and by makes all the music mute."

This new therapeutics, the preventive treatment of ills, is now being applied to many other disorders as well as those of the body. Self examination is one of the first steps in character building. Character building is our biggest job. We are living in this little light patch between night and night for one purpose and that is that we may live out our human destiny in the noblest and worthiest manner. To fulfill that destiny, there are certain serious conditions which must be met. And one of them is the necessity of facing the facts about ourselves.

Many people are living in a fool's paradise regarding themselves. They blink at facts, refuse to meet them head on. Uncomfortably aware that everything may not be well with them, yet they wilfully shut their eyes and go along their disillusioned way.

Napoleon once said to Josephine, "Things that verge nigh, my simple Josephine, are not shoved off by willful blinking at. Better quiz evils with too strained an eye than have them leap from disregarded lairs."

There is no security in illusion. We might succeed in befuddling ourselves, but facts are facts, things are as they are and must so be met. A child who holds its hand over its own eyes and says you cannot see me, is no more mistaken than the man who deliberately ignores real things by blinding himself. We must meet these facts, pleasant or disagreeable, face to face and eye to eye.

With recognition there must follow decision. Here we meet another favorite weakness of human. We know that we are slipping a bit from the high standard that we have set for ourselves. Indeed we may be ready to confess that we are far astray but just wait a bit and we will straighten out all that in some near future. Most of us like this primrose path of dalliance. It is pleasant. Many of us indeed conclude that because we intend to do the thing, that it has been done, and are painfully surprised to learn later to our discomfiture that intention and achievement are two very different things.

Procrastination is one of man's most ruthless enemies. Good intentioned people live futile lives because they meant to but never did.

There is just one safe and sane way to overcome that pernicious thing and that is do it now. Go to the mat with the thing now. That little defect which is beginning to put up its head, clip it off now. The past is gone, we cannot correct that. The future is ahead, we are not able to prognosticate that. But the immediate, the present, is ours to do what we will.

It is not worth much to merely recognize defects. Some content themselves with that and spend the rest of their lives moaning over their hard fate. Philip Brooks had a bad lisp, He was told that he could never preach. They advised him to give it up and to try something else. He left that conference deeply depressed. But he did not spend the rest of his life lacerating himself because of his misfortune. He set out that day to correct it in so far as it was possible and became in later years one of the greatest preachers which this country ever produced.

Obituaries had been written or at least contemplated over Roosevelt during his college days. He had a weak and sickly body. When that warning came to him, he did not sit down under the weeping willows and wish that he were strong; he started to build up a physique which earned for him later the recognition of being one of the most physically strenuous presidents of our land.

The story of how men have overcome their limitations and handicaps is one of the most thrilling in all human annuals and all of them reveal the truth that recognition of the fact and decision to overcome it went hand in hand.

Get yourself examined. If there is something amiss you should know it. If you are slipping a bit, face up to it. And, facing it, go through with the thing.



MARSHALL OLMSTEAD, INDIANA, AND HIS 11 PURE-BRED DUROC-JERSEY PIGS THAT HE IS FEEDING IN THE HOOSIER TON-LITTER CONTEST

He is feeding them on corn, shorts, and milk and expects to let them out on rape and soy bean forage for finishing. Their dam is Olmstead's Wonder Maid III.



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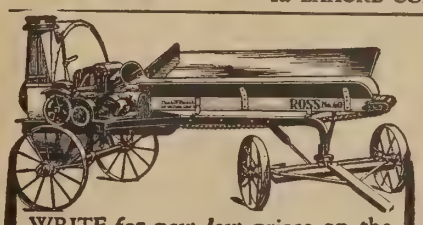
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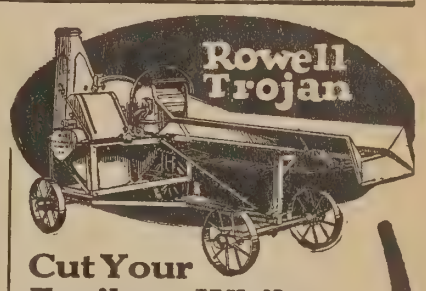
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Is City Life Superior

Is it true that the comforts and conveniences of city homes lure the young people away from the farms? Perhaps the imaginary superiority may call a few of them but I still believe, as I always have, that very few go because city life looks attractive to them and they want to go; they go because they see promise of a better living than they can make in the country.

The class to whom these facts are applicable must necessarily be working people and they know they won't live in city mansions—most of them are fully aware that they will probably live in a flat upstairs—perhaps up more than one flight—and that they must manage with inconveniences and cramped quarters that would be unendurable in a farm home. Yet they submit to these hardships because they must live where a living can be made.

They can hardly be seeking superior social opportunity for it is a benighted rural section indeed, at the present time, that hasn't infinitely more of real sociability and fully as much culture and refinement as any city section has to offer a working man and his family. At a reception recently I talked with a farmer's wife who told me she was born and brought up in the city and most of her life had been spent there but she had never lived in any city that afforded anywhere near the opportunity for wholesome recreation and social good times that we have here. Yes, there are libraries, art galleries, etc., but we can go and look at the pictures, too, and a few books well-read are preferable to a million lightly sketched.

To return to the question of comfortable and convenient homes, is the average city home superior in either respect? My neighbor went to a luxurious city home in the South to spend the winter but she returned early in February because she was so cold and uncomfortable all the time. They had all the "comforts and conveniences" on the market in that place but no amount of money could coax comfort for an old lady out of a chilly gas fire. She longed for her big wood heater at home and returned to it in midwinter declaring that she hadn't been warm since she left it, though she took with her her own woolen blankets, wool comforts, feather mattress, and soapstone.

When my mother-in-law first moved to the city she didn't like it at all, and I must confess that I sympathize with her point of view. I should always hate the garbage can worse than poison and I never could like the idea of wrapping all the waste in a paper and saving it somewhere 'til some future opportunity of disposing of it instead of dumping it instantly into chicken feed or cow feed or putting it into a real honest-to-goodness stove where it would be promptly consumed.

No country housewife would think she could manage at all with the little box-like bedrooms lighted only by artificial means and found even in very good city apartments. If we had such a "box" we would use it for a grain bin or other storage purpose. The stuffy, hot, unventilated city rooms and even the foul-smelling city streets make the farm seem like heaven by contrast. I never go to the city that I don't breathe a sigh of relief "as long as a clothes line" when I am safely settled in the car ready for home, especially after we have left the heat and noise and confusion behind us.

Assuredly city women have running water; there is no other water to have, but nine times out of ten there is no such thing as a really cold drink such as we pump, fresh and sparkling from any farm well. Fuel is usually handier in the city but when the supply is low—as it is almost sure to be during the coldest weather when the need is greatest—people can neither cook nor keep warm. At home we never have to bake at midnight because our neighbors use so much of our wood all day we can't get any. A great many of us still burn kerosene lamps but we don't have to use a dim or uncertain light (or none at all) 'til after bedtime because the farmers around us are using so much of our oil. We build our fires and light our lamps when we want them and no meddler can make a leak or cross a wire off on the line somewhere that will cut off our supply of wood or kerosene; so for our inconveniences there are compensations.

Many of the things we pick freely from our own gardens and orchards can be obtained in the city only by going to the store and digging deep into our pockets to pay for them and, even then, the quality is often so inferior we hardly recognize them. Here we milk our own cows and use all we want of the milk, butter, and cream; and it doesn't give us scarlet fever or hydrophobia either. Perhaps the city may be the place to make money but the country is certainly the place to live and bring up healthy, happy children.

New York. (MRS.) E. M. ANDERSON.

Solid or Plated

No matter how hard times are, a bride always thinks longingly of solid silver for her table. Aside from any other advantage, "sterling silver" has such a lovely sound and in many cases that is the most there is to it.

Manufacturers of silver today are making the bride's decision much easier than it used to be. Time was when solid silver was made up in just certain patterns and the plated in distinctly different ones. Anyone who knew silverware at all could tell the difference at a glance.

Nowdays it is possible to get the same pattern in both solid and plated ware and it is a boon to those of us who must economize and yet who have a longing for lovely things. I don't mean that all patterns are made up both ways, but several of the very good ones are and it takes very careful inspection to tell which is which. Then there are a few solid and plated patterns which are so near alike that when a table is laid with the two, the difference is not seen. It is worth while, if you are getting some of both kinds, to try to get such patterns as these.

I don't mind other plated things, but, like a dear old lady I know, "I do like my teaspoons solid." It is the knives and forks anyway, that are most fearfully expensive in the sterling and, to me, are least noticeable. The plated ware of today is so well made that I think any young couple would do well to investigate it thoroughly before putting much money into the other kind.—LUCY THOMPSON.

The Summer Set-up of the Furnace

If you are one of those persons fortunate enough to have a good furnace remember that summer is the time for its annual physical examination; such things need them just as people do.

All pipes should be cleaned out carefully and freed not only from soot but from the fine ash that often gets into them. Grates and drafts should be tested and everything made ready for the first blasts of winter—a thing we are all shuddering at the thought of because in our part of the country we feel that we haven't seen summer yet and it looks as if the frost would catch some of the crops. But we'll just hope and do the best we can about the things we can't control.

Most all furnaces have some sort of device for supplying moisture to the air. In a hot air plant it is a water container set into the jacket that surrounds the furnace and never yet have I seen one that was ample.

The more doctors study colds, the more they find that a great many of them are due to the fact that most of us spend our winters in air that is too dry. If you have ever lived in a house with the proper humidity you will have no difficulty in sensing a change to one that is harmfully dry.

Investigate the matter this summer and see if it is necessary to put in another water pan. The total cost of a good-sized one can be kept under five dollars, I believe; considerably under if one of your men does the work, as he easily can.

If you have got water or steam heat the task of humidifying the air is much simpler and more effective. There are shallow pans made purposely for such radiators. These are set under the radiator and a wick arrangement placed in the pan extending up between the coils. When the pans are kept full of water there is a very satisfactory evaporation.

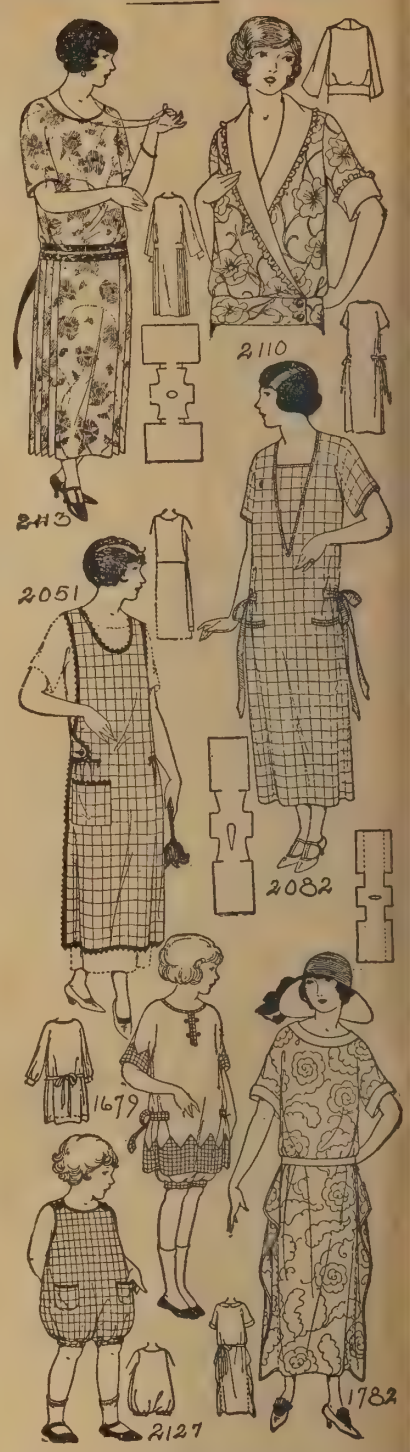
Where there are children it is better to have pans that set on top of the radiators. These, of course, have no wicks and many of them are quite decorative.

If we neglect these things till winter comes we are apt to say, "O, well, we'll get along until Christmas," and after that we say, "Spring is nearly here and we'll wait and do it later." But the heartening feeling that the furnace is ready and "rarin' to go" when the first cold day comes will pay you for all your efforts right now.—LUCY THOMPSON.

Fashion Magazine

From the front cover of our Spring and Summer Fashion Magazine right on through the book, you will see all of the styles which will be popular during the coming season. Styles for morning and afternoon wear as well as those needed for the more formal occasions. And cute styles for the kiddies. There are dressmaking lessons for the beginner, and charming styles which can be made in a couple of hours even by one who is a novice with the needle. Also photos of the most popular Broadway, New York, actresses. So settle your dress problems by sending 10c today for our new Fashion Magazine. You'll save dollars by doing so. Address Fashion Department, Hoard's Dairyman, Fort Atkinson.

Miscellaneous Fashions



No. 2113—One-Piece Dress. The accompanying diagram of which explains simple construction. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3 yards 40-inch material with 1½ yards of binding and 3¾ yards of ribbon.

No. 2110—Pretty Blouse Style, the pattern for which cut in sizes 16 years, 36, 38, 40, 42 and 44 inches bust measure. Size 36 takes 2⅛ yards of 36-inch material with 1 yard 20-inch contrasting.

No. 2082—One-Piece Dress (see diagram). Gingham, cretonne or muslin would be nice made after this style for morning wear. In softer wash cottons and summer silks it would make a pretty afternoon dress. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅜ yards of 36-inch material with 4 yards ribbon and 3½ yards binding.

No. 2051—One-Piece Apron. Cut in sizes small, medium, and large. The medium size takes 2 yards of 36-inch material with 7 yards of trimming.

No. 1679—Cunning Bloomer Dress. Cut in sizes 2, 4, 6, and 8 years. Size 36 requires 2⅛ yards 36-inch material with ¾ yard 36-inch contrasting.

No. 2127—Play Romper. Cut in sizes 1, 2 and 3 years. Size 2 takes 1⅝ yards of 36-inch material.

No. 1782—One-Piece Dress, the accompanying diagram of which shows dress opened out before any seams are taken, you see the entire dress cuts in one piece. Cut in sizes small, medium, and large. The medium size takes 2⅞ yards of 36-inch material with ⅝ yard 36-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Farmers and Politicians

HOARD'S DAIRYMAN:—In reading the letter of H. Schroeter of Wisconsin in July 11th issue, the thing that strikes me as amusing is that the farmers want higher prices for their products and lower prices for what they have to buy and the laborer wants higher wages and lower prices for what he has to buy and there are politicians who promise to bring all this about.

It would seem apparent to a ten-year-old child that if the farmer gets more for his produce, the cost of the laborer's living must go up proportionately and if the freight and machinery the farmer buys are lowered, the laborers' wage must go down; that if wages are raised the things the farmer buys will cost more, and if the cost of living of the laborer is lowered the commodities produced by the farmer will bring less.

Candidates will go into the West and promise the farmers the one thing and into the manufacturing and mining districts and promise the laborers the other. When elected these promises are empty because physically impossible of achievement.

There is too much talk of this class and that class when the only class entitled to any consideration whatever is the American class.

In national and state governments there are too many departments, bureaus, commissions, etc., mostly designed for the purpose of creating jobs and spending money. I doubt if one in ten of these bureaus, etc., accomplish enough good to offset the maintenance expenses, yet the American people continue to suffer them to be imposed on them, the paying part especially.

It is my opinion that this government could be carried on for one-half the present expense or even less.

A few years ago a Democrat was running for governor in Ohio. He pointed to the increased expense under Republican administration and of course promised to reduce it. He was elected. More bureaus were created, so many that one of the largest office buildings in Columbus was leased to house them and parts of other buildings. The next election these buildings and their rental and increased job holders and expenses were listed in the Republican campaign book. Cost of government in Ohio had increased 25 or 50 per cent. A reduction would be made by the Republican if elected. Oh, yes, sure he was elected. And the next election came around and instead of a reduction the cost of government had still further increased. And so it goes. More bureaus, more commissions, more job holders, more expenses, and more taxes and no perceptible increased benefit of government that I can see or that I have ever had pointed out to me.

On top of this are new lodges, clubs, associations, etc., started right and left, started mostly by people who like to spend other people's money, and the "Brotherhood of Jiners" bite on this the same as on the office seeker's bait, and in the end they get the hook.

The immutable law of supply and demand will take care of the farmers and the workingmen and all other Americans as well, if hindered as little as possible by government, and allowed to proceed without combinations to boost the prices of labor, materials, and commodities unnaturally.

This country grew to be the greatest on earth without these numerous bureaus, job holders, etc., and I am sure we would all survive if three-fourths to nine-tenths of them were dispensed with at once and the money saved diverted to some useful purpose. Maybe I am wrong but these numerous bureaus and job holders are a sign of degeneracy to me.

Ohio. J. W. GREENFIELD.

Tries To Pull Ideas

HOARD'S DAIRYMAN:—It is quite amusing to watch the antics of New York Teat Puller as he tries, on page 826, to pull ideas. His question No. 4, "What will the members have to show for their share in these plants after the certificates of indebtedness are paid?" illustrates my point.

He may be a success at pulling teats, but if his intellect were developed to the point of a normal ten-year-old child he could see that the members will have in their hands a lot of Uncle Sam's good dollars, the best money in the world.

The rest of his questions are about on a par with No. 4. The group of producers that supplies any market with milk is constantly changing from year to year. After the first five years under the revolving fund plan, ownership of the plants keeps changing from year to year from those who retire as producers, through death or otherwise, to those who take their places.

New York. O. W. MAPES.

A Satisfied Australian

HOARD'S DAIRYMAN:—Let me introduce myself as a satisfied subscriber from Australia. No doubt there are many more like me over here. I am a dairy farmer in the Lakes District of South Australia, and first got in touch with your instructive paper through noticing paragraphs in Australian papers which were acknowledged as copied from Hoard's Dairyman.

I don't know how many Australian subscribers you have, but my neighbors, to whom I pass on my copies, are full of praise as to its many virtues and I think you could get rid of quite a pile of papers each mail.

I am interested in Guernsey cattle, though far from being an expert. I am going to try to do my best with a pure-bred bull which I recently got from the government. I have at present twenty-two cows and hold 531¾ acres of land, described as generally level, part red loam over limestone, part sandy with stony out-crops (limestone), Yarra, rusher, herbage, and grass timbered in part with mallie and shwak; water within 8 to 10 feet of surface; a large area of good lucern land, parts are good land for barley, oats, and wheat. Rainfall about 20 inches (last year 22 inches).

Cows in this district spend their whole life out on pasture, are never rugged, and are left to calve on the grass. Naturally we seldom have cause for anxiety through sickness.

May your paper ever continue to prosper and carry on the good work, and yourself blessed with health and strength to lend a guiding hand.

So. Carolina. A. L. BETTERIDGE.



In the Bell System laboratories speech sounds are recorded on the oscillograph with a view to their subsequent analysis.

The service of knowledge

The youthful Alexander Graham Bell, in 1875, was explaining one of his experiments to the American scientist, Joseph Henry. He expressed the belief that he did not have the necessary electrical knowledge to develop it.

"Get it," was the laconic advice.

During this search for knowledge came the discovery that was to be of such incalculable value to mankind.

The search for knowledge in whatever field it might lie has made possible America's supremacy in the art of the telephone.

Many times, in making a national telephone service a reality, this centralized search for knowledge has overcome engineering difficulties and removed scientific limitations that threatened to hamper the development of speech transmission. It is still making available for all the Bell companies inventions and improvements in every type of telephone mechanism.

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Sell good quality cream. Feed and house cows properly. Watch rations closely. Be sure your stable conditions are right. Handle your milk and cream under the most sanitary conditions. Discard all rusty receptacles. Keep the cans sterilized. Sell your cream while it is sweet.

There is more in the dairy business for you if you carefully follow these practices. The cream buyer wants quality and the manufacturer of butter must have quality because a large percentage of the consuming public demand quality. Quality begins with production, and

Quality Always Commands the Better Price

In egg production, feeding and housing are as important as in the dairy business. Keep the nests clean. Gather the eggs frequently and after they are gathered keep them in a cool, dry place. Prevent the hens from stealing nests.

Sort the eggs properly so that the good and inferior eggs shall not be mixed together. Keep the small, thin-shelled and dirty eggs separate from the good ones. Consume them at home, if possible. The only way to get the top price is to furnish uniform size, color and quality eggs. A few undergrade eggs in a lot of good ones will pull the quality standard down as surely as a rotten apple will spoil all the rest in the barrel.

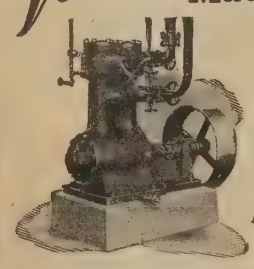
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DAIRY MARKET NEWS

1923 Prices for Pure-breds

According to a recent U. S. government report, average sale prices for pure-bred dairy cattle for 1923 range from $133 for bulls under a year old to $268 for bulls over 3 years old. More than twice as many animals were disposed of at private sale as at public auction. Auction prices, however, averaged from $25 to $50 per head higher than those for private sales. Aged bulls were the exception to this, such animals bringing more at private sale.

The figures below give a comparison of 1922 and 1923 for all breeds at both public and private sales:

	1922	1923
Bulls under 1 year	$156	$133
Bulls 1 year and under 3 years	221	206
Bulls over 3 years old	435	286
Heifers under 1 year	131	133
Heifers 1 year old and under 3 years	211	229
Cows over 3 years of age	285	261

These figures are from reports submitted by breeders to the U. S. Dept. of Agriculture. The number of animals represented are: Calves under one year of age, 4,845; bulls over one year and under three, 947; bulls over three years, 156; heifers over one year and under three, 2,479; cows over three years of age, 2,977.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets unsettled and irregular during the week ending July 26. Current demand not sufficient to absorb current receipts, with result that price declines occurred. Heavy into storage movement continues, and July increase bids fair to exceed June. Production still heavy. Import situation unimportant.

The average wholesale prices on 92-score butter for the week ending July 26, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending July 26 1924	July 19 1924	July 26 1923
	Cts.	Cts.	Cts.
New York	38.7	40.8	41.4
Chicago	36.7	38.3	39.5
Philadelphia	39.6	41.5	42.0
Boston	39.1	40.5	41.1
San Francisco	38.9	41.1	42.8

The receipts of butter at these markets were 20,469,097 lbs. for the week as compared with 21,481,947 lbs. for last week and 16,429,068 lbs. a year ago.

League Pool Price for June

The Dairymen's League Co-operative Association's gross pool price for 3 per cent milk at the 201—210-mile freight zone for June is $1.42 per 100 pounds, with deductions of $.08 for expenses and $.10 for certificates of indebtedness. The net pool price, therefore, is $1.34 and the cash distribution is $1.24.—F. A. HOAR.

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were firm. Very active demand at principal markets, with buying for storage purposes an important feature of trading. Production outlook good.

The average wholesale prices on American cheese, style Twins, for the week ending July 26, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending July 26 1924	July 19 1924	July 26 1923
	Cts.	Cts.	Cts.
New York	20.7	20.7	25.5
Chicago	18.1	17.7	21.8
Boston	21.2	21.4	25.2
San Francisco	19.0	20.5	23.6
Wisconsin Boards	17.9	17.6	21.2

The receipts of cheese at these markets were 5,360,738 lbs. for the week as compared with 5,623,703 lbs. last week and 5,676,924 lbs. a year ago.

MILWAUKEE, Aug. 4—Butter—Creamery, extra, tubs, 36c; standards, 35½c; extra firsts, tubs, 34@35c; firsts, 32@33c; seconds, 30@31c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 27½@28c; ordinary firsts (standard cases), 26½@27c; miscellaneous lots, shippers' cases returned, candled, 23@25c; seconds, dirties, 20@21c; checks, 20@21c.

Cheese—American full cream, Twins, 18@18½c; Young Americas, 18½@19c; Longhorns, 19@19½c; Daisies, single, 18½@19c; American, 32c; Pimento, 34c; Swiss, 42c; special market Brick, fancy, 15½@16c; Limburger, new, 18@19c; imported, Swiss, loaf, 42@47c.

NEW YORK, Aug. 4—Cheese—Steady; state milk, common to specials, 15@21½c; skims, common to specials, 11@12c; lower grades, 4@10c.

Butter—Firm; receipts, 9,443 pkgs.; creamery, extra, 37½c; special market, 38@38½c.

Eggs—Quiet; receipts, 11,388 cases; nearby white fancy uncandled, 46@48c; nearby brown and mixed, 37@44c; fresh first to extra, 29@36c; Pacific coast, 37@45c; western whites, first to extra, 30@45c; nearby state white, 30@45c.

CHICAGO, Aug. 4—Butter—Receipts, 18,407 pkgs.; creamery extras, 35½c; standards, 35½c; dairy, firsts, 33@34c; seconds, 32@32½c.

Eggs—Receipts, 20,032 cases; ordinary, 26@26½c; firsts, 27@28c.

Cheese—Twins, 19¼c; Young Americas, 20@20¼c.

FOND DU LAC, Wis., Aug. 2—Average cheese prices (majority of sales), f. o. b. shipping point: Twins, 18½c; single Daisies, 19c; double Daisies, 18¾c; Longhorns, 19c; square prints, 19¼c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Aug. 2: Single Daisies, 18¼c. On Farmers' Call Board, Aug. 2: Twins, 18½c; single Daisies, 18c; Young Americas, 18c; Longhorns, 18c; square prints, 18½c.

National Dairy Exposition

Dairy Show time is advancing rapidly and within a few days the annual hegira of the National Dairy Association will be under way.

The office of the Association was transferred to Milwaukee, the host to the Dairy Exposition this fall, on July 28th, and all mail, telegrams, and queries should be sent to that city. The complete address will be Room 414, Carpenter Building, Grand Avenue and Sixth Street, Milwaukee, Wis. —W. E. SKINNER, Gen. Manager.

Carload Prices of Hay, Straw, and Feed, July 26, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	31.50	30.00	.....	25.00	27.00	26.00	25.75	23.25	23.60	26.50	17.00	18.50	.....	15.00	.....
No. 1 Clover, mixed	20.50	.....	.....	20.00	28.75	.....	.....	.....	19.00	.....	15.00	.. .	.....	14.50	.....
No. 1 Clover	.....	.....	.....	19.00	.....	.....	.....	.....	18.50	18.00	.....	.....	.....	14.50	.....
No. 1 Alfalfa	.....	30.50	.....	.....		30.00	30.00	22.75	23.00	25.00	17.00	16.50	19.00	20.00	26.00
Standard Alfalfa	.....	26.50		.....		26.00	27.75	21.25	.....	21.00	16.00	.....	16.50	19.00	25.00
No. 2 Alfalfa	.....	25.50	.....	.....	.....	23.00	.....	18.75	20.00	18.00	14.00	.....	12.00	14.50	24.00
Oat Straw	13.00	14.00	17.00	16.00	17.25	.....	.....	.....	10.00	12.00	7.50	.....	8.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														36.00
Spring	31.25	.....	30.50	29.00	30.25	31.00	.....	.....	29.00	25.50	23.00	25.50		23.50	.....
Soft Winter	32.00	.....	32.00	32.00	31.50	31.50	.....	.....	29.50	.....	.....	25.50		23.50	.....
Hard Winter	.....	.....	31.50	29.50	...	31.00	.....	26.00	29.00	.....	.....	.....	22.50	.....	.....
Wheat Middlings															43.00
Spring (Standard)	33.50	.....	33.00	32.00	31.75	34.00	.....	.....	31.50	28.00	25.00	.....	.....	.....	.....
Soft Winter	.....	.....	37.00	36.00	32.50	37.00		.....	34.00	.....		31.00		29.00	.....
Hard Winter	.....	.....		36.00	.....	34.00	.....	.....	.....	.....	.....	.....	28.50	29.00	.....
Wheat Millrun	... .	.....	32.50		.....	33.50	.....	.....	.....	.....	24.50	.....	.....	26.00	36.00
Rye Middlings	.....	.....	28.00	...	.....		.....	.....	.....	.....	23.00	.....	.....	.....	.....
High Protein Meals															
Linseed	48.50	.....	49.50	47.90	.....	.....	.....	.....	46.00	45.00	42.50	46.50	48.60	48.50	43.00
Cottonseed (41%)	53.00	.....	50.00	52.70	.....	.....	.....	44.50	47.75	48.50	48.50	46.50	.....	.....	.....
Cottonseed (36%)	50.00	.....	46.50	48.70	.....	39.00	.....	39.00	43.75	45.50	45.75	44.00	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	55.00	50.00	50.00	50.00	55.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	31.50	.....	.....	27.50	27.00	26.50	.....	25.50	25.50	22.50	32.00
Gluten feed	44.55	.....	43.50	41.30	43.25	.....	.....	.....	40.30	37.40	40.50	.....	.....	.....	.....
Hominy feed (white)	46.50	.....	45.00	.....	42.50	39.00	.....	.....	42.50	42.00		38.75	39.00	.....	.....
Hominy feed (y'llow)	43.50	.....	44.00	.....	42.50	39.00	.....	.....	42.50	40.00	41.00	.....	39.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	41.00	41.50	37.00	.....	.....	.....	48.00
Dried Beet pulp	.....	.....	.....	.....	39.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.00

Cow Testing Associations

(Continued from page 77)

keep up the good work of the spring. is getting the same results from a change of pasture.—C. E. Snell.

Blue Earth Co. No. 2, Minn.: This association finished testing in June with 315 cows, 108 of these producing 40 or more pounds fat, 6 over 60 lbs., and 27 over 50 lbs. The average production of the association was 920 lbs. milk, 35.8 lbs. fat. High herd, composed of 14 grade and pure-bred Holsteins, averaged 1,172 lbs. milk, 45.42 lbs. fat. They are owned by John Fasnacht. The tuberculin test found one reactor. The remaining 4 applications for the test were filed this month, which will make this association 100 per cent in this respect. Testing for T. B. is quite active in this vicinity and petitions are out for the signature of 51 per cent of the farmers, which will make it compulsory to the others. One lighting plant and electric milker were purchased by a member. One new modern dairy barn is under construction and several are being remodeled.—O. E. Erickson.

Culver, Ind.: The 366 cows tested in June averaged 823 lbs. milk, 31.5 lbs. fat; average profit, $15.60. The 10 high cows averaged 1,998.6 lbs. milk, 76.3 lbs. fat. Eighty-four cows produced over 40 lbs. fat. A record worthy of mention was made by a two-year-old grade Holstein owned by W. O. Osborn, 1,410 lbs. milk, 76.1 lbs. fat. Market milk sold for $2.40 per cwt. The cheese factory paid $1.40 per cwt. for 3.5 per cent milk. Sweet cream brought 38 cents per lb. for fat; sour cream, 35 cents. Milk retailed for 10 cents per quart; butter, 42 cents per lb.—W. R. Matthews.

Linn Co. No. 2, Ia.: This association has been in operation one year, with an average production of 7,140.4 lbs. milk, 290.4 lbs. fat. F. E. Breneman's Jerseys headed the association with an average of 392 lbs. fat. A contrast between the average of the 5 high herds and the 5 low herds is shown as follows: The high herd average was 369.2 lbs. fat; value of product, $262.06; cost of feed, $95.99; profit above cost of feed, $166.07. The low herd average was 233.8 lbs. fat; value of product, $166.78; cost of feed, $65.46; profit above cost of feed, $101.31. The ten herds that these figures were taken from contain over 100 cows and about equal numbers in the high herds and low herds. The value of product was figured from the average price paid by the distributors of Cedar Rapids during the association year. This proves the same thing that has been proven every year, that the high producing cow is the most economical producer. The high herds averaged $64.76 more profit than the low herds. On 10 cows, the average number in these herds, the difference would be $647.60, and the difference in the amount of labor was practically none, if any.—C. J. Moore.

Fayette No. 1, Ia.: A few members feed grain. Several new silos are up and more will be erected this fall. Some of the barns will be remodeled and repaired.—C. White.

North Eaton, Mich.: Fifteen out of the 28 members fed grain and 2 fed hay on insufficient pasture. Pasture has been exceptionally good this spring and summer, but there has been an acute shortage of grain. Eight members either purchased or went without grain last spring. The condensery paid $1.55 per cwt. for milk; the cream station, 40 cents per lb. for fat. Milk retailed for 9 cents per quart.—H. E. Frank.

South Eaton, Mich.: This association has just started on its third year's work with 23 of the old members. High herd of 7 pure-bred Holsteins, belonging to C. E. Burke, averaged 14,472 lbs. milk, 513.6 lbs. fat. The average of all the cows in the association was 7,654 lbs. milk, 286.7 lbs. fat.—H. Kardel.

Clintonville, Wis.: One barn was whitewashed and another is being remodeled and cement floor put in. Large crops of alfalfa are being harvested. The condensery paid $1.80 per cwt. for milk; the cheese factory, $1.64. Milk retailed for 9—12 cents per quart butter, 50—55 cents per lb.—A. S. Peterson.

North Gratiot, Mich.: The average production of the 222 cows tested in June was 714.9 lbs. milk, 29.9 lbs. fat. This is a gain of 1.6 lbs. fat per cow over May production. Forty-nine cows produced over 40 lbs. fat, 14 over 50 lbs., and 4 over 60 lbs. Two herds averaged above 40 lbs. fat. All but 4 of the 26 members feed grain on pasture. One faulty separator was replaced by a new one. The condensery paid $1.45 per cwt. for milk; the creamery, 44 cents per lb. for fat.—C. H. Blivin.

Northwest Wisconsin

The future of cow testing association work has never looked more promising than at the present time. This, however, may be attributed largely to the fact that the dairy farmer has come to realize that it is not only necessary to have cows with records to sell them most profitably, but that cow testing association records are also necessary as an aid to him in feeding his cows with greater economy. The greater demand for associations to be organized on the single herd plan enabling the tester to render a greater service to the individual members, the increasing interest in the value of re-test work, the adoption of rules restricting the publication of records, the tester's printed annual report as a means of bringing out the value of continuous testing, and the adoption of a uniform test-period system, are all factors upon which we are basing our hopes for a greater future in cow testing association work.—ERWIN SUTTON, Fieldman for Northwest Wisconsin.



PENNSYLVANIA TESTERS MEET

The Pennsylvania Association of Testers was formed last June with A. A. Raudabaugh as president, John Smeltzer as vice-president, and C. R. Gearhart as secretary-treasurer. One state-wide and four sectional meetings will be held each year to further the interest of cow testing association work.

From Macomb County, Michigan

The annual report of the Macomb County Cow Testing Association, No. 2, shows that all members are either owning or using pure-bred sires. Three high class sires were purchased during the year and are being used in neighborhood rings.

The C. T. A. members are growing more alfalfa and sweet clover. In May, 1923, when this association began operations, 50 acres of alfalfa were grown on 29 farms. In May, 1924, 210 acres are reported seeded to alfalfa on these 29 farms. In May, 1923, not one acre of sweet clover was being grown. In May, 1924, 155 acres are reported seeded to sweet clover.

Howard Smith had high herd in fat and milk production and also high cow in fat production. Fifteen herds averaged above 300 lbs. butterfat. Forty cows produced over 10,000 pounds milk and 143 cows produced above 300 pounds fat.—CASPER BLUMER, Tester.



McGavock Plantation Home, Nashville, Tennessee

65 Years of Painting

The farm home shown above was first painted with White Lead in Oil, mixed on the place, in 1859. Since that time, it has been continuously and regularly painted with White Lead in Oil. Like many another, the present owner, who was born on the place, for many years specified White Lead in Oil—without indicating *what kind* of White Lead in Oil. But for the last twenty years he has ordered EAGLE White Lead in Oil, because he found that Eagle White Lead in Oil best protected his property for the longest period.

Send for the Farmers' Eagle

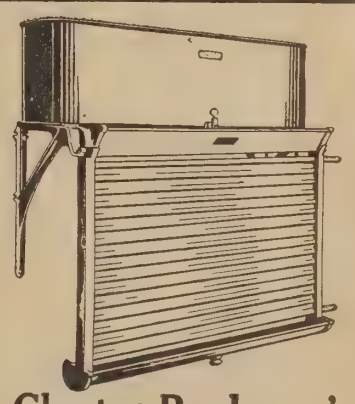
The Farmers' Eagle is a complete guide for painting on the farm. It was written by a man who grew up on the farm. It was submitted, before publication, to practical farmers who know the use of paint on farms. It will be sent free upon receipt of coupon below.



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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Judging Dairy Cows

Many of you boys and girls are taking part in dairy cattle judging contests. Whether or not you are entering a contest, every Hoard's Dairyman Junior should know some of the chief points to be considered in picking out a good cow. Only by constant selection will our breeds of dairy cattle continue to improve.

We know the final judgment of a good dairy cow depends on her answer to the question—will she fill the milk pail? This can only be accurately determined by means of the milk scales and the fat test. A cow may make ever so fine an appearance and still not do her duty at the milk pail. Or, she may be a poor looker but a good milker. Looks and producing ability do, however, bear quite a little relation to one another, and it is with this ever in mind that we will discuss briefly the judging of dairy cows.

To become well grounded in the fundamentals of judging, a score card is very useful. It tells you what to look for and what value to place on each point. Each of the five dairy breed associations has a score card for both cows and bulls of their breed, and will be glad to send them to you on request. Likewise, you can obtain score cards for dairy cattle from many agricultural colleges.

In the main, however, the general features of all are similar. Let us consider the main divisions under five heads: type, feed capacity, constitution, dairy temperament, and milk organs.

If you have ever watched a judge at work in the show ring, you have noticed that the first thing he does is to take a long distance view of the animals as they are led before him. General impressions help to roughly place the animals in his mind. He is constantly comparing the best cows, weighing the good points of one against the good points of the other. He later confirms his first judgments by handling the animals. Often when he comes to examine the milk organs, if the class before him is in milk, he will milk a few streams, thus trying out the cow's milking ability.

Type. Is the cow a good representative of her breed? This is an important question to answer in considering type. Is she typical of the best?

Feed Capacity. The cow is a wonderful machine. She is like a factory, manufacturing from the raw products of the fields a health giving fluid, milk. A cow to be a good producer must, therefore, have a big feed basket. This means that she will have a broad muzzle, and a deep, long, and well-rounded barrel. By referring to the diagram on this page frequently, you will get a clear understanding of the terms used in this article. You should all be familiar with the different parts of a cow.

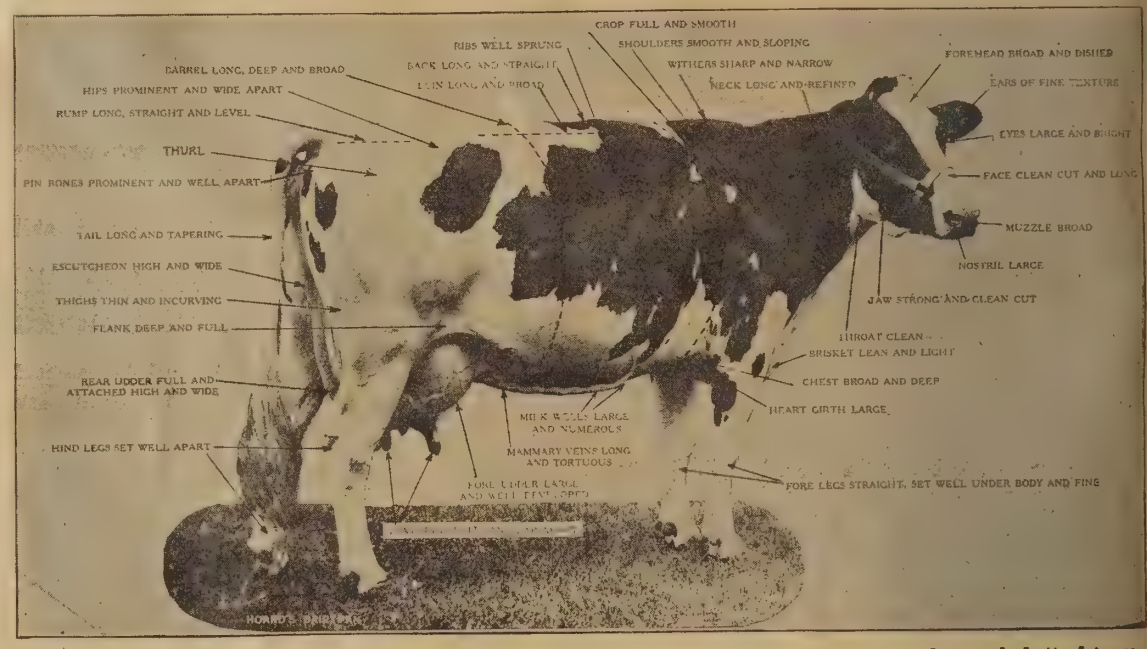
Constitution. This includes everything which applies to signs of health and long life. It means that the cow will have large open nostrils, giving a large intake of air, that she will have a good circulatory system, that she shows other signs of being able to keep well and maintain good production. Her chest should be roomy, her eyes bright, her skin pliable, hair of fine texture. You can determine the pliability of the skin by grabbing a handful just behind the shoulder.

An important part of the cow's circulatory system are the veins on the face, udder, and under part of the body. The former should be prominent and the last mentioned—often called milk or mammary veins—should be large, long, crooked, and branching. The milk wells, see illustration, should be large and numerous. The milk veins carry blood and indicate that the udder is well supplied with blood.

Dairy Temperament. When we asked a well known dairy judge what was meant by "dairy temperament" he gave this answer—"Dairy temperament is that appearance of a cow which leads you to believe that she is a good producer." This means that the cow tends to be angular, her hip bones prominent, and that there is plenty of space between her ribs. A good dairy man once told us if he could see only one part of a dairy cow he could tell more by looking at her head than any other part. Good producers show a certain quality and refinement in the head which is very helpful in determining dairy temperament.

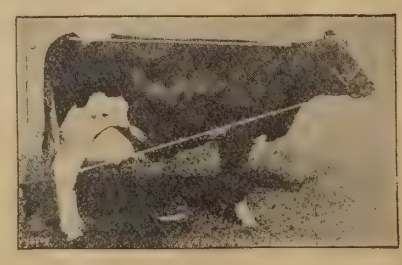
Milk Organs. The udder is perhaps the most important single part of a dairy cow's anatomy, because it is here that she produces her milk. On most score cards the udder is given more points than any other part. Here is a description of the milk organs which may help you. The udder should be well forward, full in front, full and well extended in back, evenly joined, and well held up to the body. The teats should be well apart, squarely placed, of good and even size. The rump should be long, wide, and level; thighs wide apart, the twist high and open. You can tell quite a little about the quality of the udder by feeling it. It should be neither hard nor meaty but should be soft and give to the touch.

The illustrations on this page were supplied by the Wisconsin College of Agriculture and should help you in picturing a good dairy cow and fix well in your mind the ideals in conformation for such.



Do you know the parts of a dairy cow? Duchess Skylark Ormsby was a former champion cow for yearly butterfat production, record 27,761.7 lbs. milk and 1,205.9 lbs. butterfat. She showed excellence in all parts.



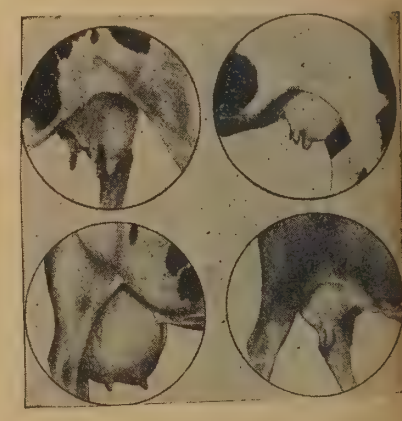


Here are three wedges that can be seen on a good dairy cow. In the upper picture both wedges have a common apex, the top of the shoulders. The third wedge is seen from the side as in the lower picture.





Do these two udder pictures compare favorably with the written description? There should be plenty of loose skin behind after the udder is milked out (lower picture).



These four udders wouldn't score very high in the show ring. They illustrate *undesirable types.*



This man is showing you the location of the milk wells, little depressions, sometimes as big as one of your finger tips, where the milk veins enter the body. The number of milk wells varies from two to fourteen.

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Of course you want a radio set in your home this fall and winter so that you can listen to all the speeches, music weather reports, latest news, and entertainments of all kinds.

How can you get a radio! Let me whisper in your ear. Do you want it hard enough so that you'd be willing to work for me? It isn't hard work either. If you'll just get a post card (or write me a letter) and say, "I want a radio set." I'll tell you all about it. Do it today. My address is—The Radio Man, care Hoard's Dairyman, Fort Akinson, Wis.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Starting with two pure-bred Jersey heifers twenty years ago, the New York Experiment Station has developed a profitable herd of twenty-six pure-bred cows from twenty-four cows of irregular breedng. In doing this they followed methods which are within the means of almost all ordinary dairy farmers. For this reason the first article appearing in the August 1st issue of Hoard's Dairyman, in A. C. Dalberg's series, is of particular interest. The New York herd at Geneva is probably the only experiment station herd in America that keeps no other breed of dairy cattle than Jerseys.

When were the first cows brought to the experiment station? Four Jersey cows arrived on November 30th, 1882. In later years Holsteins, Devons, Alderness, and Shorthorns were obtained to use in a big breeding test which ended in the 90's.

Why was one breed chosen? Because of the considerable expense involved in maintaining several breeds. And because it was desired to have a fairly uniform herd for experimental purposes. Therefore, a Jersey sire was placed at the head of the herd in 1901.

How can a pure-bred herd of dairy cattle be obtained? There are but two methods—buy them or raise them. Because the expense of purchasing enough well bred females to fill a barn built for twenty-six milk cows is probably not within the means of the average farmer, it was decided to adopt the second method.

Explain the development of the station herd. The two foundation cows, Dotshome Carey and Milly Darling, were purchased as bred heifers in 1900 from a New York Jersey breeder for $250. Milly Darling has an average of about 375 lbs. of fat for each year of her lifetime and her running mate produced about 50 lbs. less per year. All the females in the herd today with the exception of one heifer are descendants of these two cows. This herd is a product of the bulls used during the past twenty years.

Tell about the purchase of bull calves. The herd sires were generally purchased as calves from New York breeders. In every case the breeder's herd was visited some time before the bull calf was needed. If the animals in the herd were the large American type Jersey, good producers, and free from tuberculosis, a calf was later purchased by mail.

Name three commonly mentioned objections to sweet clover. (1) The cows will not eat it readily. (2) Sweet clover sometimes causes bloat. (3) It occasionally taints the milk. (See W. J. Fraser's article).

How have these objections been answered? It is the opinion of eighty-one dairymen that (1) cows turned onto sweet clover when it is young will relish it after the first two or three days, that (2) trouble from bloat on sweet clover pasture can be avoided if cows are given access to a little dry roughage, salt, and water, and that (3) the same precautions will prevent tainted milk.

What suggestions for "Milk Marketing in New England" has Alexander E. Cance to offer? That the responsible heads of the various milk organizations in New England come together at regular times to discuss their marketing problems in a friendly way. Such an organization may be easily, cheaply, and quickly formed; takes nothing away from existing organizations; gives due weight to all of them; and could have representatives from unorganized groups.

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Sound products evolve from sound principles.

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Junior Letter

Father Owns Championship Cows

Hoard's Dairyman Juniors:—I have finished my first year of high school. My agricultural teacher at high school is working up a testing association. Father has entered eleven cows. He hopes to enter several more as soon as they are fresh. Three of the eleven are registered pure blood stock. One of the cows which is to be entered is a heifer out of one of the pure cows.

One of the cows which is registered won the championship of the state of Arkansas as a two-year-old and was re-entered and won again as a four-year-old. Her name is "Katie of the Elms".

Another of the registered cows won the championship of Arkansas as a three-year-old. Her name is Financila Odello's Martha. She has been re-entered and has almost won the championship for this year. She got one of her horns knocked off.

Here is a riddle for you: 10, 5, 18, 19, 5, 25, 19. It is the name of a breed of cows. My address is Coon Valley Alfalfa and Dairy Farm, Gentry, Ark. Linton Davis.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman. Fort Atkinson, Wis. Do it now.

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Will Cut Your Bacteria Count

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I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

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Fine Herd Registered Holsteins to place on shares. FRED HARRIMAN, Appleton, Wis. 2-3

Holstein springers and fresh cows. W. STRAUSS, Route 5, Watertown, Wis. 3-4

Holsteins—Carload young cows $75.00. EDWARD YOHN, Watertown, Wis. 4-5

For Sale—Registered Holstein bull. Address BAPTIST HOME, Ironton, Mo.

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Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

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For Sale—Twenty-seven grade Guernseys, two year old and yearling heifers. DUTTON & COIT, Galesville, Wisconsin. 3-3

For Sale—Registered Guernseys, male and female, of May Rose-Bell Buoy of Linda Vista breeding, who has 32 A. R. daughters with records up to 769 lbs. fat. Federal accredied herd. O. R. SCHWALEN, Roberts, Wis. 3-*

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Wanted—Married man (no family). Man for general farm work, wife to do house work, on dairy farm. State ages, experience and wages. GROVER KULL, Genoa City, Wis. 3-2

Wanted at Once—Reliable single man on dairy. Farm and test cows. Apply M. E. BASEHOAR, Littlestown, Pa. 3-2

Men—Women. 18 up. Get U. S. Government Life Positions. $95 to $192 month. Steady work. No layoffs. Paid vacation. Short hours. Pull unnecessary. Candidates coached. Common education sufficient. Full particulars free. Write immediately. FRANKLIN INSTITUTE, Dept. P107, Rochester, New York. 4-5

Experienced boy wanted on dairy farm. R. MANLEY, R. 9, Waukesha, Wis.

Wanted—Married man, accustomed to milking machine, for 40 to 60 cows and general farm work. Swiss preferred. State wages. JOHN HUNT, Warren, Illinois. 4-2

Wanted—A good married couple, the man to be first class farmer with very good reference. Good house unfurnished facing lake; also fuel, milk and potatoes. Will start good man $60; extra good, $75. Also good single man. Must have good clean habits. $50 and board. Address BOX 226, care Hoard's Dairyman.

Wanted—One experienced dry hand milker. HANDLEY'S DAIRY, La Grange, Ga.

Wanted—Married man competent to take charge of twenty cow dairy. Holsteins. State wages. FRED TURNER, Hebron, Illinois.

Wanted—Experienced dairyman farmer to manage large farm. Excellent opportunity for one with some capital to invest in half interest in stock. Address P. O. BOX 294, Toledo, Ohio.

Wanted—Herdsman, to take charge of Guernsey herd, experienced in making A. R. records. Single man. Give reference. WM. M. JONES & SON, Waukesha, Wis. 4-*

Position open for first class farmer and dairyman, single man of good habits, thoroughly competent in care and handling of high class stock, team, tractor, and all modern farm machinery. E. S. CHANDLER, Bristol, Pa. 4-2

Wanted—Young, married man for general farm and Holstein dairy. House, garden, etc. Give reference and salary. R. GERNERT, Cloudchief, Okla.

Wanted—Working herdsman, single, on one of best equipped dairy farms in Illinois. College training preferred. Must be economical feeder, able to mix rations, compute butterfat tests and keep records. Clean habits and ability to handle men essential. Give references, age. State salary in first letter. RO-KER FARMS, La Salle, Ill. 4-2

Men—Age 18—40, wanting Ry. Station-Office positions, $115—$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis.

POSITION WANTED

Superintendent, 46, college training, 15 years successful, practical experience farm and estate management, desires position. A-1 reference. Address BOX 225, care Hoard's Dairyman. 3-3

Manager, college graduate, single, experience in every phase of grain, stock, dairy farming, gardening, marketing, wants to change. Specialty breeding and development of dairy cattle. Only large, modern proposition considered. Salary or share basis. Please write BOX 224, care Hoard's Dairyman. 3-3

Married man, age 30, experienced with pure-bred cattle, desires position as manager Holstein dairy or stock farm. Best of references. Address BOX 223, care Hoard's Dairyman. 3-2

A dairyman of good standing wants situation on a dairy farm (Guernseys preferred). Can test milk for butter fat, make butter, feed for production. State wages and where farm is located. Address BOX 229, care Hoard's Dairyman.

Position Wanted—By September first, with high class herd of Jerseys or Guernseys, as milker and feeder, where certified or class A milk is produced. Life experience, forty years of age, single. First class references in regard to character and ability. H. P. RAY, St. Charles Hotel, Ann Arbor, Mich.

Wanted—Large Guernsey herd for city milk trade. Must pay profit as it goes. Successful dairy farmer and milk man wants cattle and fully equipped farm on shares without investment. Describe fully. Address BOX 211, care Hoard's Dairyman.

Farm manager, herdsman, showman, college graduate thoroughly experienced in pure-bred cattle feeding, showing, records, certified and high grade milk production, farm crops and help. Single, 33. Open after September 1st. Best of references as to qualifications, ability, honesty. Address BOX 230, care Hoard's Dairyman.

Young man, twenty-three, wishes position on farm until next March. Experienced, good worker and milker. State wages offered and when to begin. MAX ALBRECHT, R. 1, Prentice, Wis.

Position Wanted—Two first class men experienced in certified milk production. Must be first class working and living conditions. Give full particulars and wages first letter. Address BOX 228, care Hoard's Dairyman.

Couple—Americans, Scotch-Irish, Protestants. Man, thorough farm and estate experience, capable taking charge. Wife, excellent cook, laundress or houseworker. Age 35. Two boys, 5 and 6. Best of references. Address BOX 231, care Hoard's Dairyman. 4-2

Farm manager now open for a position as superintendent of a large modern farm or private estate. Life experience with pure-bred cattle, stock raising, producing certified milk, feeding, farm and help management, buying and selling; have also owned and operated my own farm. A 1 references. Address BOX 232, care Hoard's Dairyman.

Wanted—Position as herdsman or test cow work in good Guernsey or Holstein herd by young, single man. Wisconsin or Minnesota preferred. Address BOX 233, care Hoard's Dairyman.

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wis.**

Condensed Milk Industry in Norway

The condensed milk industry celebrates its semi-centennial in Norway this summer, the first concern for manufacturing the product having been established in the city of Hamar in 1874. The Norwegians learned the method of canning milk products in the U. S. A. where the first efforts had been made in the middle of the last century. During the first years of the history of this industry sugared milk only was used for canning, but in the beginning of the eighties the Norwegian inventor, Dr. Sopp, succeeded in preserving unsugared milk in the same way through the canning method. The industry had a very rapid development and at present there are 6 large concerns that manufacture condensed milk in Norway.

The export of Norwegian condensed milk increased annually from 1876 on until the climax was reached in 1914 with an export of 20,000,000 kilogrammes. During the war the export decreased, chiefly because of the added domestic demand for the product and of the export prohibition that lasted for some length of time. For the last few years the export has been on the increase again, however, and in 1923 it reached a quantity of 8,400,000 kilogrammes. Trade journals of Norway express the belief that the export will continue to grow as the product seems to be entitled to extended markets all over the world.—ARNE KILDAL.

Minnesota Pure-bred Sire Campaign

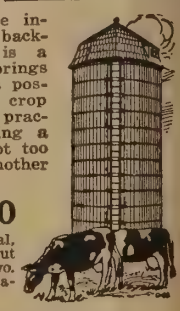
The Watonwan County, Minnesota, Pure-bred Sires Campaign recently completed, resulted in placing 84 pure-bred sires; this making Watonwan County the second highest—Blue Earth County still being in the lead with 106 sold. The total number of counties now covered in the state is 10, and the total number of bulls placed is 660; making an average in each county of 66. Of the total number placed up to the present time, 47 per cent are Holsteins, 26 per cent Shorthorns, 25 per cent Guernsey, and the balance distributed among the other dairy and beef breeds.—Minnesota Holstein Breeders' Association.

The entire Quechee Fells herd of registered Jerseys has been shipped from Vermont to Dade County, Florida, by the former owner, J. G. Howland.

One-half the herd of 80, which includes fine animals of the Oxford and Raleigh strains, has been taken by Marcus Milam, pioneer Jersey breeder of Dade County. The Bank of Bay Biscayne, oldest bank in Miami, controls the other half which has been put in charge of Frank Mitchell of Blue Ribbon Jersey dairy.—Miami Daily News.

Save Your Corn Crop

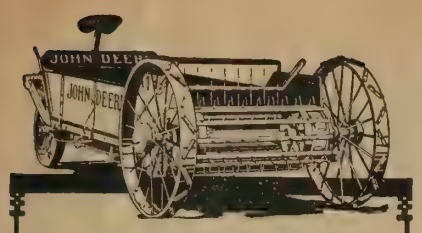
The most positive insurance against a backward corn crop is a **GOOD SILO**; it brings the greatest returns possible on a good crop and is the **ONLY** practical means of using a poor one. It is not too late to put up another silo this year.



The GEHL SILO

is simple, economical, efficient and easily put up in a day or two. Write for full information and prices.

GEHL BROS. MFG. CO.
WEST BEND, WISCONSIN



12 Years' Service —Repairs $2.70

In 1912, J. P. Jacobson of Old Albuquerque, N. M., bought a John Deere Spreader. In April, this year, he had occasion to buy his first repairs, these consisting of springs and pawls for the drive wheels, at a cost of $2.70. And, mind you, Mr. Jacobson runs a dairy farm and spreads lots of heavy manure. When his John Deere Spreader finally does wear out, the cost per year will be mighty low.

And this case of many years of low-cost service is not unusual with John Deere users.

When you make strength comparisons—when you put the John Deere Spreader on the scales, you will appreciate why this spreader gives such low-cost service.

You may pay a few more dollars for a John Deere, but, in the long run, you will be many dollars ahead.

SEE THIS EASY-LOADING, LIGHT DRAFT SPREADER—THE SPREADER WITH THE BEATER ON THE AXLE—AT YOUR DEALER'S.

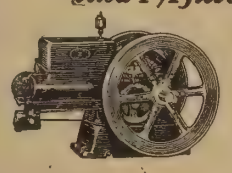
"Soil Fertilizers"—valuable book, also spreader literature free. Write John Deere, Moline, Illinois, and ask for booklet SE-614.

JOHN DEERE
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

New Engine Prices TODAY 19% below 1913 level

Battery Equipt
1½ h. p. $48.50
3 h. p. $83.50

Magneto Equipt
Operates on Kerosene
3 h. p. $98.50
6 h. p. $153.50



1½ H. P. MAGNETO EQUIPT $58.50 F.O.B. FACTORY—ADD FREIGHT TO YOUR OWN TOWN

1913 Fairbanks-Morse Engine Prices
~~1 h. p. $55~~
~~2 h. p. $90~~
~~4 h. p. $130~~
~~6 h. p. $200~~

YOU can buy a "Z" now at a price per horsepower that is 19% below the Fairbanks-Morse advertised engine prices of 1913. Quantity production, engineering skill, careful manufacture give a better "Z", lower than ever in price.

More than 1,250,000 h. p. in farm use have proved the "Z" is the best engine that money can buy — dependable, economical — the cheapest servant you can hire.

You can buy today 19% below 1913 level

FAIRBANKS, MORSE & CO.
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Pat. 7-2-07 & 9-10-18
ANTI-COW KICKER
Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. M. Topeka, Kansas

Friendly Talks for Farm Folks

The average child is usually all right in its weight if he or she is regularly fed the Milky Way.

⚜

It is a successful year on the average farm if there is enough left over after paying the multitudinous bills to buy a smart new suit for mother and an equally smart pure-bred calf for father. We hope with all our heart that every farm family in the land will have a little to the good this year after all their faithful labors.

⚜

One thing to be thankful for—folks still play croquet on the farm in preference to Mah Jongg.

⚜

It's been so out of the ordinary wet all over the country this spring that many a farmer has threatened to jump into the well and end it all. But why the well? That's just as wet as the river flats this minute!

⚜

Barry Newton says that his idea of being reasonably busy is to have the hired man take a vacation, and then have the cultivating, haying, lawn mowing, pea picking, spraying, setting in cabbage plants, berrying, and the breaking of vital machinery all crying to be tended to on the same day.

⚜

At a gas-filling station we know, they are giving ice cream cones with each purchase of ten gallons of gas. Well, one is as good for the human engine as the other for the car's.

⚜

We notice that the city ladies visiting the farm and who are on a diet for their excess weight always forget their calories at the country dinner table. How they do go in for Aunt Maria's raisin-rhubarb pie and creamy Dutch cheese and little new peas and potatoes swimming in butter and so on through the well known menu. We admit that it would take courage of a higher order than we ourselves possess to turn the other eye while such fillers are passing around.

⚜

Grandpa Eels hasn't any use for this so-called jazz music the young folks are forever playing on the phonograph, but he can sit for hours of evenings while grandma softly plays "When You and I Were Young, Maggie", on the old Melodeon.

⚜

Bert Bascon allows that until the auto gives birth to a little auto every year like old Brindle out in the barn, he calculates to put his ready money into the herd instead of into a slightly different styled engine annually.

⚜

If a man from Mars were to look downward upon our earth, if he had good eyes he would see long white strips crossing and crisscrossing which are constantly filled with white ants darting hither and yon. And mixed in with the ants would be larger insects of brighter hues and colors which would seem to be faster creatures and of more importance than the industrious ants. And if he were to ask somebody what the darting tiny black things were, he would be told that they were Fords, while the larger things were cars. And he would then probably think to himself, like Lincoln, "Surely the Fords must be the national car on earth, or ten million folks wouldn't be using them."

New York. HELEN S. K. WILLCOX.

Know Your Cow Contest

What county will win the "Know Your Cow Contest" when it closes August 31? This question is being asked by dairymen and farm bureaus in 22 counties of Kansas and Missouri. Sixteen Missouri and 11 Kansas counties entered this contest when it began January 1, 1923, and 22 of these counties are now nearing the close of the contest with a possibility of sharing in the one thousand dollars offered by the Kansas City Chamber of Commerce.

Four thousand seven hundred and thirteen cows are on test in 17 associations covering 22 counties. Other cows that were in the associations near the beginning of the contest, January, 1923, have completed a year's record and are not now on test. In contrast to this, there are some cows now in the associations which will not have time to complete records before the close of the contest. So there may be some surprises in store for those who have believed that the county with the largest association would win.

May reports show the average production of these 4,713 cows on test to be 647 lbs. of milk and 26.9 lbs. of butterfat. Four hundred and fifty-five cows produced over 40 lbs. of butterfat. The price of butterfat averaged 39.3 cents per pound.—G. W. CATTS.

Idaho will send a carload of cattle and a large delegation to the National Dairy Show. The Idaho Falls Chamber of Commerce is one of the most active agents in the state in boosting the exposition. Idaho claims a record of 400 pounds milk and 20 pounds fat in excess of the C. T. A. record of Wisconsin, queen of the dairy states.

Save Soft Corn in Hoosier Silos

Turn your late soft corn crop into a big money-maker by saving it in a HOOSIER SILO for winter feeding. Prompt shipments certain. Your order placed now insures delivery by the time corn is ready. HOOSIER SILOS in Oregon fir or glazed vitrified tile. Best materials and construction on the market.

Write Today for SPECIAL BULLETIN

We have prepared a special bulletin covering this year's corn situation, showing how you can turn late corn into big profit. Sent free on request. Write today.



HOOSIER BUILDING TILE & SILO CO.
Dept. K-5 Albany, Ind.

La Belle Silver Fox Farm

INCORPORATED

Breeders of— HIGHEST QUALITY REGISTERED

SILVER BLACK FOXES

Fully Guaranteed Breeding Stock for Sale



It will pay you to investigate this wonderful new industry. We solicit your consideration.

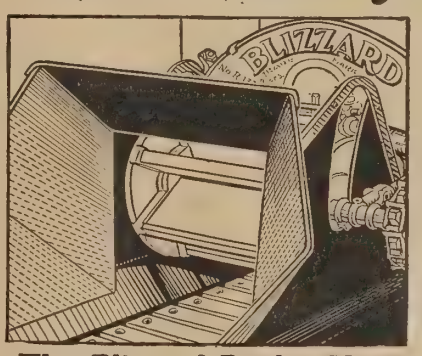
DR. O. STADER, Secretary, Oconomowoc, Wis.
Members of the National & Wis. Fox Breeders' Ass'ns.

Farms For Sale

We sell farms, large and small, with rich soil located in Central Ohio near modern schools, highways, churches and towns at low prices with small amount down and balance in 20 annual payments. Write

THE MADISON COUNTY LAND COMPANY, LONDON, OHIO

Corn will be late— Don't risk your ensilage



Order a Blizzard Cutter now. Arrange to help a few neighbors out and get part of your money back.

Looks like another race between the corn and Jack Frost. Why take chances? Be sure you can save your corn. And arrange to help out a few neighbors.

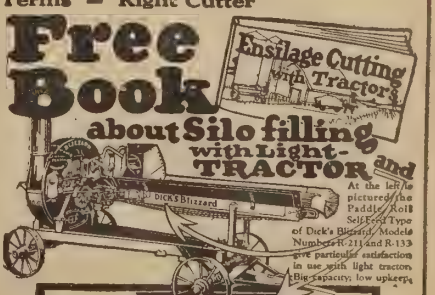
The Blizzard Dealer Has a Real Proposition for You
Right Price — Right Terms — Right Cutter

Dick's Blizzards are lightest running, do most work per H. P., are safest to operate, last longest, do finest work.

Three special models for light tractor power. Four other models using H. P. of 3½ to 18 and giving capacity of 4 to 35 tons per hour.

Write for catalog. Ask name of nearest dealer if you don't know.

THE JOS. DICK MFG. CO.
Box 500 -:- -:- Canton, Ohio



SALE ANNOUNCEMENTS

Sept. 10—Holstein Dispersal Sale. J. C. Kostman, Bruce, Wis. W. H. Krause, Sale Mgr., Thorp, Wis.

Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades. Dassel, Minn. A. B. Rayburn Mgr.

Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.

Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.

Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.

Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.

POULTRY On The DAIRY FARM

J. B. HAYES



House Requirements

It takes a heap of folks to make a world and each one seems to have definite, settled ideas on poultry house construction. The one time when they all seem agreed to disagee is on this one subject. There are fundamental ideas that must be incorporated into every satisfactory house but the deviation that is possible and the combinations that can be tried are many and numerous. Every poultryman at some time or other has designed a special type of house to meet his own particular needs. In too many instances we see flocks that are giving excellent returns in poor houses but in such cases, it is the man behind the feed pail that is responsible, in spite of the poor equipment.

Some people believe in a change every time a new piece of literature on the subject is read. One flock owner that is well known is always just on the verge of obtaining perfection in ventilation and equipment. When one of his neighbors was asked what system was being used he said that he didn't know, for it had been impossible to get over for a visit in about a week.

That is rather the history of house construction for it has been a jump from nothing at all or makeshift sheds to expensive houses and from there back to the open type front. When this was found to be inadequate for all conditions, the next change was a closed building with no ventilation and finally a compromise.

As a resume one can state that the following points need to be considered: 1, location; 2, size; 3, width; 4, floor construction; 5, wall construction; 6, type of roof; 7, window space; 8, ventilation; 9, nesting space; 10, interior arrangement.

Even in these points there is abundant chance for one to show ingenuity and originality. Possibly it might be safer to say that economy of construction and flock comfort are the two ideals that one most desires. It is possible to construct a house that is too expensive and yet not achieve the desired goal. If the house does operate in a manner that will permit maximum production, the flock can in time pay out on the proposition. In too many cases, houses have been built and after they did not work, suggestions were wanted. These buildings are generally so improperly planned that improvements are out of the question and they stand as permanent monuments to a poultry failure.

A poultry house should be planned to fit the flock or the flock culled each year to properly fill the building. When one tries to put several times as many hens in the house as it should hold, poor results can be expected. Since most farm flocks are carried in 100 hen multiples, a 20 x 20 building should be the foundation unit. A 20-foot depth is about the maximum that one can use in a gable roof house without having a front elevation that is out of proportion. In the same way a minimum depth of 16 feet is as narrow as a house should be planned. Since a front ventilator is used, the birds must be roosted back far enough to avoid the influence of the intake.

A square building is the cheapest type to construct as it requires the smallest amount of total wall construction. While a 20 x 20 unit requires 80 feet of wall construction, a 10 x 40, which has the same floor space, requires 100 feet. The 400 square feet will accommodate about 100 of the heavier fowls permitting four square feet per bird, or 125 of the smaller breeds, such as Leghorns, that requires 3 x 3½ square feet. As the size of the flock decreases the space per individual must be increased.

If natural windbrakes are available it is well to take advantage of them in locating the poultry house. Of greater importance, however, is the relation of the poultry house to the home and the granary. A good flock in a good poultry house can be placed in sight as part of the farm buildings while a poor, mongrel flock in a makeshift building is generally stuck as far away as the other buildings will permit.

The house should face the south on a spot that has good natural drainage and is not overshadowed by other buildings. Abundant sunlight is required in the interior and it cannot be so arranged, during the winter, if some larger structure throws a shadow over it at all times except for an hour at noon. This point is becoming of greater importance each year. One house to my knowledge is a total loss because it was placed close to a large barn. That building is cold, damp, gloomy, and a mighty good flock under those conditions has never been able to do more than sustain life during the winter with every low production.

Although alternates are often suggested, such as an east or south-east exposure, they are never quite satisfactory. A little inconvenience in caring for the flock is preferable to poor location.

All parts of the floor must be elevated 8 to 12 inches above the ground level. This means that drainage must be considered. A well drained spot will permit the flock to range earlier in the spring than a bog that never dries out. When an east and west slope must be used, the floor at the lowest point must be placed a foot above the ground level and the other end brought up as high as necessary to have the floor level. Never defeat the entire purpose of building by running any part below ground level and do not build into a bank for warmth.

Digestive Troubles

My husband is a subscriber of Hoard's Dairyman and has advised me to ask you if you can suggest anything for hens dying in a way as described here. When I first notice they aren't well, they lag behind when others hurry out of coop to their feed and walk around in a dazed way; almost act like blind, don't seem to care for any grain. Their combs don't turn pale but rather darker and blueish, then they drop over dead. Seem to be heavy, too, because they aren't sick long enough as a rule to get poor before they die.

Neillsville, Wis. (Mrs.) E. B.

There is a possibility that there may be some disease present in the flock that is not indicated in the symptoms given. In all cases such as this, one should send a sick hen by express prepaid to the Veterinary Department of the College of Agriculture for examination. This work is done without charge and permits a definite examination and final diagnosis of the disease.

The fact that the hens are fat, sluggish, inactive, and with the combs turning purple indicates some form of digestive disturbance. This can be caused by material that the birds are eating, such as decomposed meat or refuse that has been found, polluted water, paint that has been thrown out or a number of other very similar materials.

In any case the use of Epsom salts is advised whenever the flock seems to be just a little bit out of condition. Keep them confined for a half day in the poultry house. The evening before, take away the drinking water and the next morning give the salts at the rate of one pound to the hundred birds. This can be mixed with the drinking water or may be combined as a part of a moist mash. Adding it to the water allows a more uniform mixture and assures all of the flock of getting a share.

If necessary, this treatment can be repeated in about a week. This is just a temporary measure and the real cause of the trouble should be found by a rigid post-mortem examination. The service is free and more people should avail themselves of the opportunity.

Hot Water and Steam Heat at Small Expense

(Continued from page 75)

steam pipe and valve A may be omitted and the heater connected up with a barrel or tank in the same manner that the water back in a range is connected with the hot water tank and water system in the city home.

In our tests and demonstrations we have used both the coil heater and the jacketed heater. The coil heater heats a given amount of water a little more quickly than the jacketed type, but where a considerable quantity is to be heated, the latter is somewhat more economical in the use of fuel, as there is far less loss of heat through the walls of the heater. Our tests and demonstrations show that either type of heater, when properly connected, furnishes plenty of steam for steaming the cans, pails, etc., in a small dairy, in addition to an abundance of hot water. However, if a large amount of steam is needed for sterilizing a large number of cans, bottles, etc., a steam feed cooker or a small upright boiler should be installed.

The Dairy House

A convenient dairy house helps to take the drudgery out of dairying. It need not be expensive or elaborate but should be conveniently arranged, well lighted, and sanitary. Ample provision should be made for plenty of pure water, both hot and cold. Two floor plans shown on this page fill these requirements and are adapted for use on farms where cream is sold. Note the arrangement for washing, rinsing, steaming, and sunning the utensils, and how they are worked around in the most convenient manner from the wash sink to the drain rack in the successive steps in their proper cleaning. The cooling tank and drain rack are near the outside door, making it convenient to load the cream into the wagon or truck and to remove the cans and pails at milking time. The drain rack should be on a level with the steaming shelf and should be located so as to receive as much direct sunlight as possible. The cooling tank should be on the north side of the house.

THE STATE OF WISCONSIN
Presents Its Annual
STATE FAIR
MILWAUKEE
(74th Year)
Aug. 25, 26, 27, 28, 29 and 30
SIX DAYS; SIX NIGHTS
50 CENTS DAY OR NIGHT
Automobiles Free
FREE PARKING SPACE for 20,000
SPECIAL RATES ALL RAILWAYS
LEGION DAY
MONDAY, AUGUST 25.
Wis. Press Day
All Wisconsin School Children will be admitted free as guests of State.
FUN ON THE FARM
John M. Kelley's Sensational Farm Spectacle with Trained Dairy Cattle and Horses, Mechanical Cow.
BAREBACK RIDING BULL
STATUE POSING BULL
KELLEY'S "GREEN BULL"
and 20 Star Vaudeville Acts.
SIX NIGHTS!
$20,000 Fireworks Spectacle
TOKYO
WHITE HUSSAR SINGING BAND
20 OTHER BANDS and Orchestras
New $250,000.00 Amusement Park
Dancing Pavilion, Carrousel, Aerial Swing, Whip, Half-mile Coaster, Ferris Wheel, Etc., Etc.
THE FARM ON PARADE
$130,000.00 in Prizes for
Cattle, Horses, Sheep, Swine, Poultry, Agricultural, Horticultural, Apiary Products; YEAR'S ROUND-UP of Badger State Boys' and Girls' Club Activities, and
Nation's Best State Dairy Show
HARNESS RACING!
MONDAY, WEDNESDAY, THURSDAY, FRIDAY—1st Race at 1 p. m.
$5,000 MATCH RACE FRIDAY
Single G, Sir Roch, Margaret Dillon.
AUTO RACING!
TUESDAY and SATURDAY 2 p. m.
World's Fastest Dirt Track Drivers and cars.
HORSE SHOW!
STOCK PAVILION — MONDAY, TUESDAY, WEDNESDAY, THURSDAY and FRIDAY NIGHTS 8 p. m.
SEE THE 1925 MODELS
AUTOMOBILES AND TRUCKS
New Expo Building
$150,000 Structure, Largest on any Fairground in the U. S., to house a Manufacturers' Exposition.
MAMMOTH SHOW OF TRACTORS and FARM MACHINERY
THE WISCONSIN STATE FAIR
"Educates, Inspires, Entertains on Biggest Possible Scale."


Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.
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When writing advertisers please mention Hoard's Dairyman.



Are You Fair With Your Cows?

ARE you giving your cows a "square deal?" Is it fair to stable them on cold, hard, damp floors where they must stand and lie for many hours, and then expect them to give big yields of milk? Do you blame your cow or your floor when she slips and strains a tendon, or develops garget from the chill and dampness? Think it over.

Stall floors of Circle A Cork Brick are *safe* floors because they afford a firm, nonslippery foothold. They are *comfortable* floors because they are easy and resilient underfoot. They are *health-promoting* floors because they are warm and dry. They are "square deal" floors because they are the best floors you can provide for the cows you expect to do their best for you.

Maybe you never have thought about floors in just this way before. They are worth thinking about. Some interesting light on this subject will be found in the 32-page book, "Circle A Cork Brick", which will be sent you, free, on request. Address Armstrong Cork & Insulation Company, 112 Twenty-fourth Street, Pittsburgh, Pa.

Ⓐ Circle A Cork Brick Ⓐ
FOR DAIRY BARNS AND HOG HOUSES



REMEMBER, it's but a short distance from your cow's udder to the cream pitcher—the butter plate—the nursing bottle.

Keep her surroundings healthful, free from disease germs, and clean smelling, with Dr. Hess Dip and Disinfectant.

Provide a wallow for your hogs. To each 25 gallons of water, add about one quart of Dr. Hess Dip. Your hogs will do the rest. Good night lice and disease germs!

Use the sprinkling can—in the poultry-house for lice and mites, wherever there is filth or a foul odor.

DR. HESS & CLARK, Inc.
Ashland, Ohio

DR. HESS DIP and DISINFECTANT

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Stifle Lameness in Cattle

The stifle joint in an animal is the one at the flank and corresponds to the human knee in that it is formed of the bones called femur or thigh bone above, tibia, or leg bone, below, and patella, or knee cap, in front. It is such a large and complicated joint that an injury or sprain of the part is a most serious matter, while disease of the joint usually proves incurable and opening of the synovial capsule of the joint often is followed by infection which proves fatal. In cattle there are also unusually large condyles or projections of the bones forming the joint and one of these may be broken off if the animal receives a kick from a horse or strikes the part hard against a door post or other obstacle. When that occurs it has been our experience that gangrene of the surrounding tissues and skin is liable to occur and the injury then proves fatal. There is no quite successful method of treatment. Sprains, or dislocation of the patella, more commonly occur, and may be more successfully treated.

When an adult shows a chronic and mysterious lameness of the stifle joint, with no known cause and only a slight amount of swelling or sensitiveness when handled, we always advise applying the tuberculin test at once as tuberculosis of the joint is a possibility and not infrequently met with. The disease is incurable and necessitates destruction of the affected animal, as prescribed by state law which the veterinarian who applies the test will explain.

When a wrench or sprain has affected the stifle, causing acute lameness and great swelling, heat, and soreness of the part, the best treatment is to wrap the joint with a blanket and keep that constantly wet with hot water for 24 hours. Following that treatment an anodyne lotion may be rubbed in now and then, as prescribed by the veterinarian. If chronic lameness persists after inflammation has subsided the hair should be clipped from the stifle and around it and a blister applied, if the cow can be so tied that she will be absolutely unable to lick the treated part. A suitable blistering salve is made by mixing together 1 dram of powdered cantharides (Spanish fly), 1 dram of bioiodide of mercury, and 1 ounce of unsalted lard. Rub it for 15 minutes. Wash it off in 48 hours; then apply a little lard daily. If licking is permitted the cow's rough tongue will make the part raw and may cause a permanent blemish.

When dislocation of the patella occurs, the hind leg is thrust stiffly backward and cannot be advanced. The hock joint may assume nearly a straight line. Examination discovers the patella on the outside of the leg, lower than its accustomed seat. Treatment consists in pulling the foot upward and forward by means of a rope and manipulating the patella with the fingers until it is forced into position with a snapping noise. Afterward the animal should be kept in a stall for a week and if the accident recurs a blister, such as we have already prescribed, should be applied to the part. In young animals the patella sometimes slips out and back as the animal walks, making a snapping sound. When that occurs the animal should be kept tied up and the blister applied to the joint.

Obstructed Teat

I have a 4-year-old Jersey cow with her third calf. Her left front teat has always been longer and larger than the others and has always given a little more milk out of that teat than the others. She gives a good flow of milk and is very easy to milk. She brought a calf about four weeks ago. The large teat is very tedious to milk this time. The milk tube or something that feels like gristle is a little larger than in the other teats. The teat is not sore and her udder is soft and good and milk is good. The milk seems to stop at top of teat. Could that teat be opened up without injuring the udder? If so, how?

Ellington, Mo. T. L. W.

It is dangerous to operate when a growth or stricture obstructs the duct of the teat near the udder. A wound caused by a cutting instrument induces bleeding; then a clot may form and decompose or pus form. The result then may be a severe attack of ruinous garget. If a veterinarian, on examination, finds that an operation would not be advisable, it would be best to let a calf nurse or to dry off the secretion of milk in the affected quarter.

Ever Failing or Never Failing Pasture

(Continued from first page)

not be compared to bluegrass."—H. K. Williamson, Central Illinois.

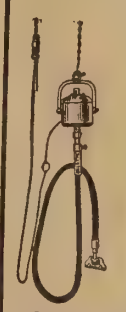
"Sweet clover pasture is about three times as good as bluegrass."—E. L. Parker, Southern Illinois.

"Sweet clover pasture will carry three head to the acre for three months where with bluegrass it will require two acres for one head."—Andrew Johnson, Northern Illinois.

"One acre of sweet clover is equal to five acres of our slough and bluegrass pasture."—J. O. Tupper, Northern Illinois.

"One acre of sweet clover pasture is as good as five acres of bluegrass or common pasture in this vicinity, besides helping build up the soil."—Edwin Denman, Northern Illinois.

After reading the above statements made by men who have tried sweet clover as a pasture and know what it will do, one can but realize that sweet clover is a wonderful pasture crop. These statements which say that sweet clover is three or four times as productive as bluegrass are made after careful thought by these men who have had experience with both crops, and may be taken as reliable information. Their enthusiasm for sweet clover pasture is very evident, and what it has done for them it will do for others who will give it a chance. It certainly saves a big section of the farm.



Clipped Cows give more, richer and cleaner milk. Clipping improves the health of all kinds of your live stock.

GILLETTE Clipping, Grooming and Shearing Machines will save you time and money.

Electric machines operate from an ordinary lamp socket or on any make of farm lighting plant. Write for our price list or order through your dealer.

GILLETTE CLIPPING MACHINE CO., Inc.
129-131 W. 31st St., Dept. M., New York, N. Y.

TEAT CUP INFLATIONS
AT MONEY SAVING PRICES

Teat Cup Inflation Tubes—De Laval or Fort Atkinson Milkers	$ .22½
Claw Tubes, Milk or Air (all makes)	.12½
Long Milk Tubes (all makes)	1.20
Long Air Tubes (single)	.90
Stanchion Tubes (all makes)	1.90
Hot Water Tanks	5.50

Guaranteed best pure gum rubber tubing. Mail us your order—attach check, money order, or bank draft.

Milking Machines Hot Water Tanks
Taylor Vacuum Engines

MILKER SUPPLY COMPANY
FORT ATKINSON, WIS.

Is Seeing Believing?

Mr. Fischler checked up on his eyes and was satisfied

Most Edgeworth is sold by word of mouth—one happy smoker will pass the good word along to some less fortunate brother, and a new Edgeworth "fan" is born.

Sometimes, however, the human voice plays no part in the spread of Edgeworth popularity.

Witness Mr. Fischler's letter:

Wellsboro, Pa.

Larus & Bro. Co.,
Richmond, Va.
Dear Sirs:
Last summer while on my vacation, which was spent on Pine Creek, one of the best fishing streams in Northern Pennsylvania, I noticed a lot of discarded Edgeworth tobacco cans. Especially were they noticeable near the good fishing holes.
When I returned home I bought Edgeworth and learned the reason for all those empty packages.
Yours,
Peter Fischler.

We're much too busy filling the blue tins here in Richmond to be able to follow them to the four corners of the earth.

It's a curious fact, by the way, that sportsmen everywhere show a marked preference for Edgeworth. There's something in the blend that strikes a responsive chord among fishermen and hunters, campers and hikers. We have had this quality of Edgeworth brought to our attention time and again, but have been unable to get at the reason for this partiality.



Perhaps some reader, himself a sportsman, can tell us why Mr. Fischler found so many Edgeworth tins "near the good fishing holes."

Be that as it may, "seeing is believing" with us just as it was with Mr. Fischler. Thousands of letters from pipe smokers are visual proof to us that in Edgeworth we are producing a tobacco that most men like.

You may not find Edgeworth to your taste at all, but we think it probable that you will. Let's try to find out!

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound, and also in several handy in-between sizes.

If you'll write your name and address to Larus & Brother Company, 57 South 21st Street, Richmond, Va., we'll send you, postpaid, free samples of Edgeworth Plug Slice and Ready Rubbed.

What follows is a matter between you and your pipe!

If you care to write us the name and address of your regular tobacco dealer, we shall very much appreciate your courtesy.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Ready-Rubbed for the same price you would pay the jobber.

Dozen Reasons Against T. B. Testing

(Continued from page 76)

is not another form of political graft.

12. If the milk from an animal affected with tuberculosis is a dangerous drink, who can explain why her steaks or rib meat are not equally as risky a food? This question was recently put to a man who is making large profits from the farmers' losses, but did not receive an intelligent reply.

We are told that it is possible to isolate the tuberculous germ and, if so, why not submit samples of each cow's milk to a careful analysis instead of cutting her throat in order to learn the quality of her product?

The writer does not contend that the tuberculin testing of registered herds is a mistake but the owner of grade cows, whose milk is pasteurized before marketing, should do a lot of careful thinking before risking the loss of perhaps his entire herd.

JERSEYS

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

Belswood Farm Jerseys

Offering bred or open heifers. Heifer calves. Bull calves. Herd Federal Accredited. Write for pedigrees and prices.

A. F. BLOCK, Mgr. Norwood Park, Ill.

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.

Federal Accredited Herd No. 72406

W. R. KENAN, JR., Owner. T. E. GROW, Supt.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.

H. S. HAGER, PRAIRIE DU SAC, WIS.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves. R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.

J. Q. EMERY & SON, EDGERTON, WIS.

SEVERAL FINE CALVES

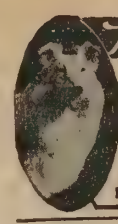
Both sexes, Raleigh breeding. All sired by Wisconsin's second silver medal bull who has one daughter with 718 lbs. fat as a 2-year-old.

MRS. PHILIP SMITH, Manitowoc, Wisconsin

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write

ROLLA OLIVER, Route No. 5, Independence, Mo.



A Friend and Playmate

Shomont White Collies Love Kiddies

This one quality alone makes our Scotch Collies rare bargains. They're gentle, fearless devoted. Have every quality a dog should have--intelligence, courage, strength. Fine shepherds, unsurpassed as watchdogs. Indefatigable enemies of vermin. They are the "Aces" of all dog-dom. Satisfaction guaranteed. Pairs not akin. Get our special bargain lists now.

SHOMONT KENNELS
Box 117, Monticello, Iowa

GUERNSEYS

Nine Guernsey Bulls

Ready for Service — For Sale
Discounts to Bull Clubs

These bulls are bred to sire size, type and production. Write for price, pedigree and description. If you will write us amount you can afford to pay for a bull, we will send you description on the kind you want.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

SARNIA FARM GUERNSEYS

WE OFFER FOR SALE

SARNIA BOB, 85659, dropped Sept. 26, 1922. Sire, Pencoyd Crackerjack, 39627, by Langwater Pencoyd, with 16 A. R. daughters with records up to 810 lbs. fat and out of Quaker Maid of Pencoyd 759.7 lbs. A. Pencoyd Crackerjack has two daughters finished 567.8 FF, and 458 G. The latter on retest will be a class leader in BB. Dam, Infanta of Sarnia, 87746, Record 371.8 GG. A daughter of May King's Vrangue of Ingleside. This bull is large for his age, a good individual, about a third white. PRICE $200.00.

CHARLES L. HILL & SON, Rosendale, Wis.

BULLS 6 to 10 Mos. Old

From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

Fond du Lac County Guernseys

Both pure-oreds and grades for sale. We have some especially good registered heifers and top notch bulls to offer at the present time. Write today if you want clean cattle from the herds of reliable breeders.

B. F. SHERIDAN, Sec., Fond du Lac, Wis.

Homestead Farm Guernseys

FOR SALE, bulls of serviceable age and younger, bred for production and type. Cows, 2 to 7 years old, fresh or to freshen soon. Also two heifer calves. Write

JAMISON BROS. R. 2, Appleton, Wis.

JEFFERSON COUNTY GUERNSEYS

combine type and production. We offer high grade and pure-bred cows, heifers and calves of all ages from clean, healthy herds free from T. B. Buy that bull needed for fall service now.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.,
J. C. Ralston, Sec'y., Fort Atkinson, Wis.

Summer Bargains In Guernsey Bulls

Midsummer price reduction sale of Registered Guernsey males, calves and yearlings, May Rose breeding, mostly from A. R. cows. Federal Accredited herd.

RICHARD F. KLEMM, Baraboo, Wis.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.



Raleigh's Torono s Meme 544207
16035 lbs. milk 902.15 lbs fat.

World's Championship Blood

We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.

HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

Famous Herd Sire For Sale

BEAUTY EAGLE'S BONNY BOY
No. 42893

Dam's A. R. record: milk 16,144 lbs.; fat 846.31 lbs. (Class A). This is a proven sire. His daughters are improvement both in type and production over their dams and he is a fine specimen himself. For sale at a very reasonable price.

ALSO HAVE FOR SALE two exceptionally nice BULL CALVES sired by the great May Rose bull, Warrior of Destiny. One at $50 and one at $100.

GREAT BARGAINS

W. P. CRAIG, 616 Bessemer Bldg., Pittsburgh, Pa.

HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO

For prices and information, write

E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

Thorn Hill Farm Guernseys



Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

Four Pine Farm Guernseys

This great bull is senior herd sire at Four Pine Farm. He is still siring sons and daughters at the age of 13. 26 daughters have finished A. R. records. They average 625 lbs. at 3½ years.

Improve Your Herd With a Son of "King"

Write today for price and pedigree of one.

F. K. BABSON, Owner — Hinsdale, Ill. — E. D. COMSTOCK, Jr., Manager



KING OF CHILMARK 20798

EL JANE GUERNSEYS

ARCADIA, MISSOURI
(85 miles south of St. Louis)

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready fo any kind of service. We also have 6 calves. These animals are from high produc ing dams with records. Ten of these animals will go well in show ring. You will want one for fall servic We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you ped gree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right pric

Federal Accredited EL JANE FARMS, - Arcadia, Missou

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

CORIUM FARM GUERNSEYS

Fond du La Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

If You Want Guernseys

or other high class dairy stock of any age and bree buy them in Wisconsin through the Wisconsin Ban ers' Association. Field men give you valuable hel You buy direct from the farmer.

BANKER-FARMER EXCHANGE, R. V. Gunn, Director
520 First National Bank Bldg. Madison, Wiscon

IF

Your Next Herd Sire is Not Better than Your Present One, You Are Going to Lose Money

Buy a young bull calf from us and instill blood lines into your herd that we have been developing for years.

Herd Federal Accredited

HOARD'S DAIRYMAN FARM
Fort Atkinson, Wisconsin



ANTON'S KING CONFIDENCE 43517 A. R.



MIXTER FARM GUERNSEY

THE LARGEST HERD IN THE WORLD

OVER 3,000 REGISTERED GUERNSEYS have been bred at Mixter Fa 300 IN THE HERD NOW. We have several outstanding young bulls f A. R. dams, also a carload of splendid females for sale at very reason prices.

Write us or better still visit our herd.

MIXTER FARM *Fed. Accredited Herd* J. S. Clark, Mgr., Hardwick, M

HAMPSHIRES



Spring Pigs $20 each —$37.50 per pair From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information

WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA

AYRSHIRES

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

Regist. Ayrshires—Federally Tested

Home raised, well bred cows, calves, heifers and bulls for sale.

FRIENDS' HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.

E. B SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

BROWN SWISS



SWISS VALLEY GIRL 7TH NO. 4678

Breed Brown Swiss Cattle

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N
IRA INMAN, Secretary, Beloit, Wis.
E. BOWER, Pres., Union Stock Yds., Cleveland, Ohio

Kinnelon Bred

Fall calf of exceptional quality and conformation, born in March and sired by Illda's College Boy. His daughters with first calf are doing better than 12,000 lbs. a year. His dam is Pimpernalle who has a three-year-old record of 15,160 lbs. milk and 600.69 of fat. Once freshening she has hit 65 lbs. with a 4.7 test. Let us send you full particulars.

KINNELON FARMS, Butler, N. J.

HOLSTEINS

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, pure-bred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

GRADE HOLSTEINS FOR SALE

We have for sale several carloads of excellent grade heifers due in October at $75 each and top notch cows also due in late September and October at $100. These are exceptionally good ones,—productive and healthy.

RANDOLPH HOLSTEIN ASSOCIATION
W. Pierce, Sec. Randolph, Wis.

Before You Buy A Bull!

Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms

(In Waukesha County)

F. J. Southcott, Manager, Dousman, Wis.

Clean herd under State and Federal Supervision

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:

AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

FARMERS' BULLS AT Farmers' Prices

Wisconsin State Institutions have for sale pure-bred Holstein bulls, all ages. All from big 1,400-lb. cows of good type, having creditable yearly herd records. Buy our calves. Raise them yourselves. Save money. Some ready for heavy service. Write us your needs. Also a few slightly blemished cows, splendid type, good breeding cows. Write G. M. HOUSEHOLDER,
State Capitol, Madison, Wis.

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

For Sale

Choice Holsteins and Guernseys. 300 head, all ages. Four large farm herds to select from. Milkers and springers at reasonable prices.

WHITEWATER STOCK FARM
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OUR HERD SIRE Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

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Oconomowoc, Wisconsin
Herd under federal supervision.

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HOLSTEINS

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We can supply good ones at reasonable prices whether you want 1 or a carload.

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Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

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Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.

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CRYSTAL STOCK FARM offers choice, high-grade Holstein heifer calves at $17. Pure-bred bull calves, $30 and up. Crated f .o. b. our station. High-grade Holstein Springers, carlots or less, pure-bred cows and heifers at farmers' prices. Before you place your next order write

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Our Honor List Northern Aaggie Longfield 494300

Bred, owned, and developed by
Newberry State Hospital, Newberry, Michigan

SIRE: Canary Paul Fobes Longfield, whose 59 A. R. O. daughters include 9 from 31.49 to 36.50 lbs. butter in 7 days.

DAM: Northern Newberry Aaggie, whose sire has 59 A. R. O. daughters, including 4 from 30 to 39.87 lbs.

Records:

At 3 yr. 2 mo.: Butter, 7 days, 23.78; Milk, 500.8
At 5 yr. 3 mo.: Butter, 7 days, 32.51; Milk, 702.3
Butter, 30 days, 133.84; Milk, 2,893.7
Butter, 365 days, 1147.90; Milk, 26,074.9

Northern Aaggie Longfield is a half sister to Newberry Canary De Kol, a 36.5-lb. cow with a 365-day record of 1231.75 lbs. butter and 26,053.6 lbs. milk.

Michigan State Herds are now offering a few choice young bulls for immediate service or ready for the fall breeding season. Send for our list.

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Department B Lansing, Michigan

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200 Carloads of Holsteins

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LIVINGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
Burr J. Hoover, Secretary Howell, Michigan

Iowana Ona King Pietertje

Born July 25, 1923

A son of Meadow Holm Ona Hartog King, and from a daughter of Sir Johanna Fayne. His dam has a good two-year-old record and is dam of a 950-pound junior three-year-old.

Bull is three-fourth white and a fine individual.

Send for pedigree and particulars.

IOWANA FARMS (*Herd under Fed. Supervision*) Davenport, Iowa

This is Only One

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Line bred Sadie Vale bulls for sale.

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Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.

Hargrove & Arnold, Norwalk, Ia.

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out of A. R. dams and sired by our two richly bred herd sires—King Piebe Ormsby Mercedes, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and King Pietertje Mercedes Ormsby, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

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This Handsome Bull For Sale -- $400

Six nearest dams average 1007 lbs. butter in a year.

Sire, SIR WALKER SEGIS HOMESTEAD, a show bull (31 A. R. O. daughters), a "PIEBE" son from a 1230-lb. (former world champion) daughter of "COUNT"

Dam, MARIE PONTIAC PRIDE, 745 lbs. butter in 365 days as a junior two-year-old, while her dam made 1016 lbs. butter as a four-year-old. A TOP-NOTCH INDIVIDUAL WITH A SPLENDID PEDIGREE. Born August 26, 1923.

Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

Carleton Walker Segis Ormsby *For Sale*

Born March 28, 1923, good individual, mostly white. Dam a 31.5-lb. three-year-old, just finishing good 305 day record. She has 20.86 butter, 7 da. 600 butter, 15000 milk 305 day at 2 years. She is a daughter of "KING SEGIS PONTIAC FAYNE STAR," the best proven son of "Count". Sire, Sir Walker Segis Homestead, a "Piebe" son from the greatest daughter of "Count", a former world record heifer, who has 3 year records averaging 1000 lbs., and is one of four 1000-lb. daughters of her dam. Send for pedigree and photo.



Sir Walker Segis Homestead

FEDERAL ACCREDITED.

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O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 33-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service. GRAHAMHOLM FARM,

D. G. Twentyman, Manager Rochester, Minnesota

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RIVER MEADOW FARMS, Portlandville, N. Y.



Prince Aaggie of Berylwood

Prince Aaggie of Berylwood

His Dam has just made a World's record by producing nearly 1100 lbs. butter on 2 milkings a day and is bred to qualify in the 305-day division.

Aralia De Kol Mead 2d, the dam of "Prince Aaggie", is an exceptional cow. She also has a yearly record of over 1300 lbs. butter and a 7-day record above 37 lbs.

His 7 nearest dams average nearly 1200 lbs. butter. All are over the 1000-lb. mark.

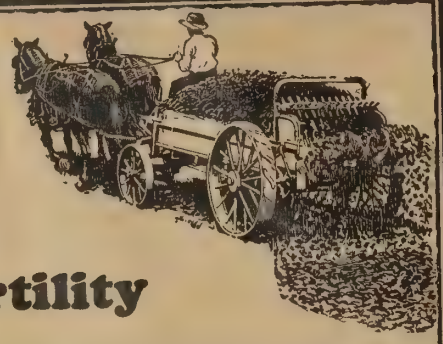
Prince Aaggie is a grand champion bull himself. One of his sons will suit you.

BERYLWOOD STOCK FARM, J. W. Snodgrass, Mgr., Hueneme, Calif.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

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1. Authorities have estimated that from ⅓ to ½ of all our barnyard manure is absolutely wasted, the annual loss totaling about $800,000,000. This loss is not alone on poorly managed farms but it includes many that in other respects are operated efficiently.

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Six acres, manure *spread by hand from a wagon box,* average number of bushels of corn raised per year: 336.

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Three-year gain in bushels of corn, by the use of a good manure spreader, on the 6-acre area: 252.

3. McCormick-Deering manure spreaders put fertility into the soil as it should be done. They are light in draft, strong and simple, yet with the right adjustments so that you can spread all kinds of manure, as heavy or light as you need it.

Note these features:

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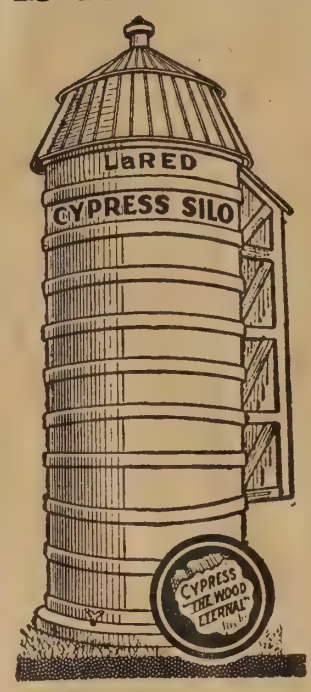
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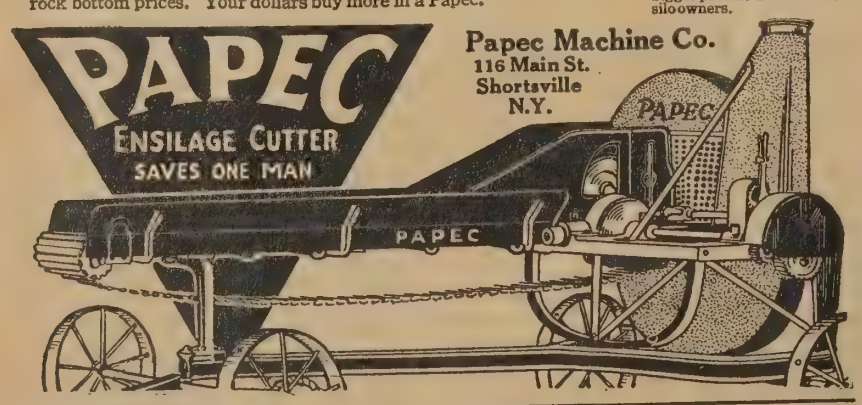
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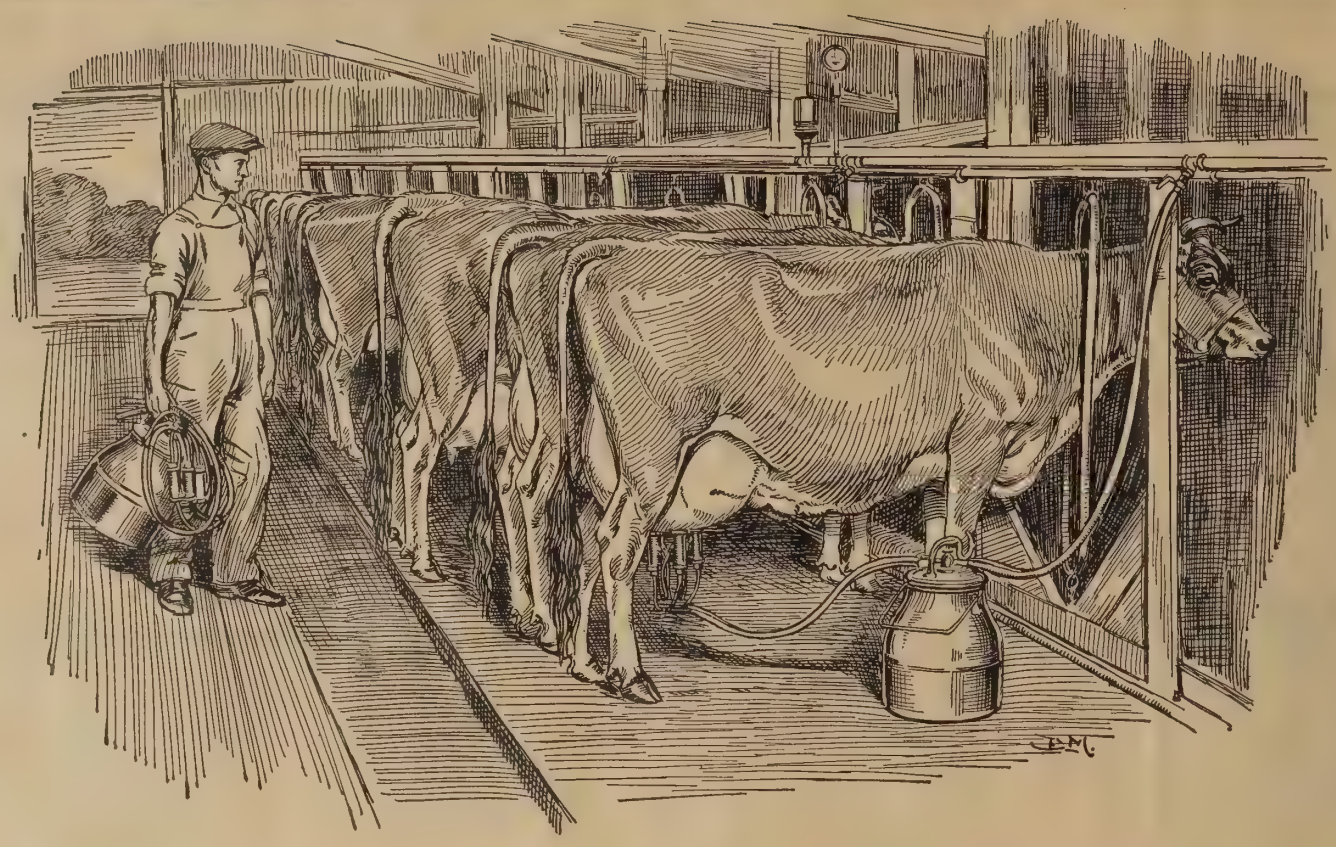
HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Jersey Bull, You'll Do's Champion

Volume LXVIII, No. 5 Fort Atkinson, Wisconsin August 15, 1924



"I took your statement regarding the performance of a De Laval Milker with a grain of salt"---

said Lewis A. Toan, of Perry, N. Y., a breeder of purebred Guernseys, who goes on to say:

"We use the De Laval Milker and I am so well pleased with it and your De Laval Service that I want to express my appreciation. We were 'up against it' for help before we put in the De Laval Milker, with a stable of 24 cows and part of them on test milking three times a day. I must say frankly that I took your statement regarding the performance of the De Laval with a grain of salt.

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"We appreciate the Milker, and another thing—the De Laval Service, which you apparently forgot to emphasize when I purchased our machine. That in itself is worth a lot to a beginner. If anyone wants my opinion of the Milker, tell him to call me up."

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HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., AUGUST 15, 1924 Number 5

EVER FAILING OR NEVER FAILING PASTURE

Part 7.

Sweet Clover the Greatest Labor Saver

WILBER J. FRASER, University of Illinois

THE addition of two acres of land per cow to the farm without cost is no mean gift, and in Part VI we saw how sweet clover pasture will do this for the dairyman if he but uses it. On the other hand, labor is equally as important as land, and is more often the limiting or determining factor, not only upon the possibilities and hazards of the dairy business, but also upon the health, development, and enjoyment of the dairyman himself and his family, for 40 or 50 years of life.

Most dairymen work hard early and late, year in and year out, tilling the soil, raising and harvesting the crops, and filling the silos, the mows, and the grain bins. In addition, there is the work of feeding these crops in the winter and, alas, much summer feeding besides, adding extra labor to the farmer's already busy day.

The Labor Problem

To make the most profit, we must have the labor of a dairy farm busy throughout the year at productive work which will add to the income. This means that there must be a regular program of work laid out which will make the amount of labor required at different seasons of the year as even as possible. To bring about a more economical use of labor in the corn belt, men often drive five and six horses on the plow and disc, and there is still much opportunity for development in the use of labor saving machinery in nearly all sections of the country.



SWEET CLOVER PASTURE, THE BEST HAND ON THE FARM

Summer feeding for Mr. H. Renschen of Southern Illinois means practically nothing but opening the gate and allowing his cows all they will eat of this fine sweet clover pasture. That this is an effective method of feeding is shown by the fact that three of these cows produced over 60 pounds of milk per day and one 75 pounds with no supplementary feed.

But the man with bluegrass pasture must, in addition to providing twice the area, furnish large amounts of supplementary feeds, the production of which involves a large number of laborious and time consuming operations, some of which are illustrated below. In addition, he must feed these crops each day in the barn or let his cows suffer from lack of feed.

We have all been using many old methods on the farm that are not economical in the matter of labor, for the simple reason that "father did" or the "other fellow does". The thing for us to do now is to systematize our work so as to do the most things with the least work, to accomplish the best results.

Much has been said and written about planning the crop rotation so that the various crops would give continuous employment to the same amount of labor throughout the crop season. Some of the greatest economy in operating farms in recent years has been brought about in this field. A notable example is the management of Mr. W. E. Reigel on the Meharry farm in Champaign County, Illinois. In the last 10 years in which he has been manager, he has reduced the actual money cost of man labor on this farm 40 per cent, and this in spite of the fact that at present the wages are practically double what they were 10 years ago, and all the labor is hired on this 800-acre farm. He did this largely by planning a rotation of crops in which one crop follows the other with as little work in preparation of the land as possible, and by allowing the stock to harvest 160 acres of sweet clover pasture and a good amount of corn themselves.

There is a great opportunity for labor saving on dairy farms simply by cutting out bluegrass pasture and the necessary feeding of silage, hay, and grain that goes with it. When sweet clover pasture is substituted for it, the cows can harvest their feed themselves for the entire six months.

Every dairyman knows what a relief from hard, back-breaking labor it is when the day arrives in the spring that the cows can be turned onto pasture. The year's round of work is the *dairyman's burden.* Much of it is inevitable, but if any large part of this toil with crops and toil in feeding can be removed without lowering the year's income, the dairyman will have a distinct relief and a large saving of expense.

Saving Four Months' Labor

If sweet clover pasture were substituted for bluegrass, practically all

(Continued on page 109)





MAKING HAY, RAISING CORN, AND FILLING THE SILO FOR SUMMER FEEDING TO SUPPLEMENT BLUEGRASS PASTURE









Eighty-two Years of Agricultural Observation

E. A. POWELL, NEW YORK

Those who have never seen grain harvested except by a self-binder; can little appreciate that there are men still living who saw grain cut with the sickle. Mr. E. A. Powell, a banker and a prominent breeder of Holstein cattle at Syracuse, New York, when a boy, saw grain cut with a sickle and he himself used the cradle for harvesting grain and the scythe for cutting hay. Recently he related to us some of his early experiences on the farm and took occasion to epitomize the development of agriculture as well as transportation and other industries. His life has been so full of experiences and he has covered so long a period of both close application to his work and close observation that this interview was to us most interesting and we take pleasure in passing it on to our readers.—Editors.

EIGHTY-TWO years ago, on the Fourth of July, I got my first observations in agriculture at the old homestead of the Powell family in Crawford County, Pennsylvania. On that beautiful Fourth of July, I escaped from the watchful care of my mother to view at a closer range a scene in an adjoining wheat field where my father, according to the custom and times of the community, had invited neighbors and friends to join in a Bee to cut his crop of wheat of about three or four acres, which was the largest crop in that vicinity at that time.

I made my way to the gate where I could look through—but could not unfasten. A curious scene presented itself. Probably a dozen men were on their knees, moving first this way and then that, in order to cut the wheat which was then ripe. This was being done with a sickle in the hands of each operator. Handful after handful was cut and placed in bunches ready to bind. At that time no other mode of cutting wheat was



E. A. POWELL

known in that section. The hand-cradle was just coming into general use. Such was my first observation in agriculture, and I have watched the growth of this great industry from that small beginning up to the present time in nearly all parts of the United States.

The hand-cradle soon became common and in twelve to fifteen years it became my favorite occupation in cutting wheat by hand. Machines for that purpose came much later. At about this period the mowing of grass for hay was all done by hand. It was an attractive sight to see a dozen mowers in line, one just behind the other, all keeping perfect stroke, as regular as keeping time to music.

The old Allen mower, which was the first introduced in that section, was bought by my father and I soon became quite expert in using it. With the improvements that have been made since that early date, your readers are quite familiar.

I have watched with interest every progressive step up to the present time when we see in the West, and especially in California, great machines which will cut, thresh, and bag a swath of many feet every time it goes around the field.

Great tractors, turning eight to ten furrows at a time, followed by harrows, grain drills, and finally by rollers, are all drawn by the same tractor so that by going over the field once the whole process is completed.

In the winter of 1855 and 1856, when I was 17 years old, I was left in entire charge of the farm with a large herd of cattle, over twenty horses, twenty-four, if I remember rightly, and a large flock of sheep. The preceding season was the driest I have ever known and during the winter hay was so scarce that it was almost entirely out of the question to secure it at any cost. I soon discovered that it was impossible to winter our stock under the usual methods of feeding, for our crop of hay was very light and it was useless to attempt to buy. We had on hand a very good crop of corn.

I had heard my grandfather, who moved into the section in 1812 when it was all wilderness, recall that he had to keep his two cows on browse until he could clear land enough to grow other fodder. In thinking the matter over very seriously, I concluded that I could winter the cattle and horses on browse which the people at the later date, that of my boyhood, knew nothing of. We had an excellent man on the place, living at the extreme end of the farm. I arranged for him to meet me in the morning in the wood lot. After doing the chores about the barn, I would start for the woods at daylight, followed by the herd of cattle, and carrying an axe and a bag of corn on my shoulder. I would give one or two ears of corn to each steer on the way and they were glad to follow on this account. We chopped for the entire day for one hundred days except Sundays, eating cold, frozen dinners which we had with us in the woods. The cattle soon learned to eat the browse as fast as we would fell the trees. So eager did they become to get at the fresh limbs that as soon as a tree would be ready to fall, they would rush for it and had to be kept at a distance by a dog, which was well trained, until the tree had fallen. Fortunately the winter was extremely cold, so much so that there was good sleighing for 100 days, the whole country being continually under a heavy blanket of snow. On this account the cattle were ready to eat browse every day until the last of April.

After bringing the cattle to the barn each night they were given another ear or two of corn with a mere handful of hay or straw which seemed very necessary in order to keep them in condition. The result of this forced experiment proved very satisfactory for the cattle were wintered in fine condition so that for the splendid bunch of steers, for which I was only able to get an offer in the fall of $12 per head, I sold on the first of June following for $62 per head. This was my first and only recourse to such extreme measures in wintering cattle, and fortunately it proved very satisfactory. Of course, it was hard work, especially for a 17-year-old boy, but I never enjoyed better health than during that winter and a few years following, so that I concluded that very few people are injured by hard and continuous work.

Boys were developed at that period by hard work on the farms during the summer—attending common school in the winter and three months' "Select School" during the autumn, doing chores night and morning. Our community had a literary or debating society one or two evenings each week. We were fortunate in being blessed with parents who encouraged us in this work. In fact the whole community and entire section was composed of New England people who thoroughly believed in hard work and earnest study.

From our debating society were developed two members of Congress, a judge, two brilliant attorneys, a lecturer who was frequently called on to speak at agricultural meetings in all sections of the country, a successful banker, and several very successful teachers.

I thus diverge from the subject which was the one given me, to express my opinion based on observation that a college course, while very desirable, is not absolutely essential to success even in the practical or literary walks of life, although I highly approve of it where possible.

My work on the farm, attending school as mentioned above, soon gave me an understanding of all farm work and at the age of ten years I assisted in the plowing, seeding, and harvesting. I frequently milked 10 cows night and morning.

My love for live stock, both horses and cattle, seemed to be inherited. My father, Hon. Howell Powell, was a practical breeder and from my earliest recollection had upon the farm the first herd of pure-bred Devons in Western Pennsylvania, which has been continued in its purity by selecting sires from the best herds in the East for at least seventy years.

Other breeds were also introduced, consisting of Shorthorns, Herefords, and finally Holstein-Friesians—the latter being introduced quite extensively after I had disposed of my interest in what had already gained quite a reputation at our old homestead, "Shadeland". Each breed was kept pure.

In 1868 I adopted Syracuse as my home and the nursery business as my occupation. "Shadeland" became greatly extended and improved under the management of Powell Bros. until it was recognized as one of the leading live stock establishments in the country.

My partner in Syracuse was W. Brown Smith, my father-in-law, an eminent nursery man, and J. H. Clark, whose health failed and he soon retired. In looking over the situation, we observed that the business required a large amount of land in course of preparation and fertilization before it could be prepared for nursery purposes.

The hay and grain grown on the farm was sold and fertilizer bought to put the land in proper condition. It soon became evident that for economy it was better to feed out the produce and produce our own fertilizer. To bring this about, we first secured a herd of Ayrshires which we bred a short time, when the whole herd was disposed of. We next bred Shorthorns with a few Jerseys and Guernseys. We then secured the herd of General Patrick—Milking Shorthorns—which had already made quite a reputation, some being excellent and some poor, but on the whole not entirely satisfactory. Honorable Chas. Sedgwick, a friend of the family visited Holland and made a small importation. He made us a present of a beautiful bull calf which was a cross between a famous Shorthorn cow and his imported Holstein bull. Both these ancestors were pure blood. We crossed this bull with pure blood Shorthorn cows, selecting the poorest milkers in order to see the result. This cross gave us the first heifers we had ever seen which gave over 40 lbs milk a day at two milkings before they were two years of age.

These results called for further investigation. We visited all the Holstein herds we could hear of in the East. The result was that we bought the bull, Uncle Tom, and nine females of Hon. Gerritt S. Miller. We then commenced to import after buying these animals in 1875, making frequently several importations in a year. Since that time the Lakeside herd I think has been well known to our fellow breeders.

In reading an account of the flight of Lieut. Russel L. Maughan, flying from New York to San Francisco between daylight and darkness, I was forcibly reminded of the wonderful development in transportation in the United States. I well remember in 1849 during the gold fever of California, two uncles decided to seek their fortune in the land of gold and like a multitude of ambitious Americans, they decided to visit California. They sailed from New York around Cape Horn, landing at the Golden Gate. The trip required six months time.

Imagine the contrast between such a trip in 1849 and one day for the journey in 1924.

At that time railroads in the East were just beginning to be developed. A line over the Rockies was supposed to be impossible, but now passenger trains carry their passengers by several routes, each with all the luxuries which ingenuity has invented, across the continent in five days.

What the future has in store for our country and for mankind in general baffles our imagination.

After 80 years' experience and observation in both country and city life, I do not hesitate to say that the country is by far the better in which to rear a family of useful citizens where every child should have regular duties to perform, commencing at a very young age. Every child should have a regular period for play and recreation as well as work and study. He shall have no time for absolute *idleness*, for *idleness* is the curse of America today—the forerunner to *crime*.

I have led a very busy life—never shirked hard work, and now in my 87th year am at my desk attending regularly to business. The teaching of this experience is that hard work injures very few, while idleness is the arch-enemy of young and the blight of age.

Making Soy Bean Hay

GEORGE M. BRIGGS, WISCONSIN



In curing soy bean hay in stacks D. K. Barrett of Burnett County was one of the first users of wild hay as a top covering. This is the best use of wild hay we know of—protecting other good hays.

AT 6 a. m. the Shawano county agent's telephone rang violently. The voice at the far end said, "Mr. County Agent, the steam is coming out of every door, window, crack, and flue of our barn. What are we to do? The soy bean hay is going to ruin us and destroy everything." In his masterful voice the county agent said, "Don't worry. It will come out O. K. Your barn won't burn up. Don't move any hay, just leave it alone." In another three months, Mr. J. McMillan, from an adjoining town, came into the county agent's office. Without any introduction he started in about as follows:

"Say, Murphy, I can live on that old farm now. You remember that woman that called you up at 6 a. m. one morning last fall? Well, that was my wife and for sure we thought our whole place was going to be destroyed —but do you know, that hay cured out the finest and sweetest of any I have ever had." You know we put that hay up rather green but had no idea of it heating but after this result I'm not afraid of curing soy bean hay. You know that hay is compact and smells and appears just like so much chewing tobacco. Its too bad to get cows in the tobacco chewing habit. But the fine results from that hay I'm getting assures me that I needn't starve to death on that sand farm and that I can really live there."

With the thousands of acres of this legume planted for hay, there are perhaps many farmers wondering just when is the best stage of the plant's development for hay, and how is the best way to handle the crop after it is cut so as to make the most palatable hay.

Experienced soy bean hay makers say that soy bean hay making is comparable to curing second crop clover —but even at that, any crop cut for hay in late summer time is subject to slower drying weather, muggy, foggy mornings, and at the best needs a few clear days to make the best hay.

Despite the method used in curing, the stage the hay is cut, or the quality of the hay that is finally mowed away, some almost unbelievable tales are told of the wonderful palatability of this legume. It should be encouraging to the man expecting to put up soy bean hay this fall to know that regardless of how the hay is cared for, no matter how much rain or fog, no matter if shocks float about in the field, no worry if mow or stacks heat, that old bossy will consume the apparently non-palatable hay as soon as any other hay and produce milk on all four cylinders right through the season.

At the Wisconsin Experiment Station in two trials comparing alfalfa and soy bean hay for milk production, very little difference was noted in these two legumes. In the first trial the soy bean hay was cured excellent, never having a rain on it, being bright and green when put into the mow, but in the last trial the soy bean hay would grade about a No. 3, being bleached, and having been handled so much that many of the leaves had broken off and the hay appeared woody, stemmy, and unpalatable. In both tests there was some of the coarser stalks refused by the animals. This amount varied with the animal, yet these cows held their own with the alfalfa fed cows where less stems were refused.



The side delivery rake is very satisfactory for handling soy bean hay.

Summary

1. One's available machinery and labor will decide how to cut and handle the soy bean crop.

2. While the greatest amount of nutrients will be obtained from cutting soy beans when pods are partially mature and leaves yet adhering, yet the weather is a big factor in curing soy bean hay, so every farmer that has power to prophecy good weather wants to jump at the right time.

3. In curing soy bean hay, after having it in medium sized cocks, rather than spreading it out, it is often best to let it cure, even though it takes ten days or more.

4. In stacking or mowing away, if hay is slightly damp, alternate layers of other hay or straw can be used to good advantage.

5. In large acreages, side delivery rake and hay loader can be used as with any other hay, but use all tedding machinery in morning when leaves are tough.

6. Don't worry, the hay will be usable even though it does not appear all green. Just try some for bedding and see how your stock produces on it.



The mower is possibly used more for cutting soy beans for hay than any other implement. Despite the coarse stems few mowers are hurt in using them for cutting soy beans for hay. It is true where soy beans are planted in rows that the bar has to be tilted in order to avoid running into the soil.

Proper Cutting Time

The best stage of the plant to get the most protein would be when the plant is just blossoming. At this stage the plant would be leafier and probably every stalk would be consumed as they would be less woody than at a later stage. Curing at this early stage, however, requires excellent weather because of so much sap in the plant, and a much lessened yield would be derived as there is a great increase in total weight from blossoming stage to a stage where pods are partially filled. In one field in 1923, where part was cut on August 20, with a yield of 1¼ tons, on September 10 on the other part of the same field a yield of 2½ tons was harvested. This field was planted late—just before the Fourth, so at first cutting was only nicely blossomed, while at later cutting was well podded.

Recommendations for cutting soy bean hay often consist in advising to cut "In good hay curing weather". Some farmers say that if they want it to rain, it is only necessary to get the mower out and the chatter of the sickle seems to aggravate the weather man just like so many fire crackers and about the next day, along comes a downpour. In 1922, August 25 to September 5, was an excellent time to cut and cure soy beans, but in 1923 it was better frog weather than hay weather, so I presume that time of cutting soy beans for hay will be an individual matter; cutting plants at time when most leaves are adhering, and when lower pods are about full size and partially mature, and what promises to be fair hay weather. It is well worth remembering, however, that late fall weather is not conducive to best hay curing, in that fog is often heavy and along equinox time it occasionally rains.



The ideal method of curing soy bean hay. On the farm of Mr. Kanne, Wisconsin.

Double Crop

We can seldom expect to get both hay and seed from the same crop but the experience of Less Walker, Wisconsin, is worth giving. In fall of 1923 he cut 11 acres Early Black soy beans for hay. In leaving them until good hay curing weather they probably got a little mature, but those farmers knowing the Wisconsin Early Black know that the leaves will adhere until after the pods are fully mature. After having the hay in the mow, he discovered so many ripe beans he thought he would thresh them. From this 11 acres, he threshed 9 bushels to the acre, besides having his two loads of feed which made his Jersey cows give him a handsome profit during the winter of 1923 and '24.

Best Way of Cutting

There is no best way I know of to cut soy beans for hay. The growth of the plants will determine what machine can be used and often a farmer is limited in his choice to what he has—it not being necessary to have any special machinery. The mower is probably used the most and with the pea roller attachment makes a most satisfactory method—however, cutting with a mower, then using side delivery rake or hay rake after leaving in swath for one day makes a very desirable method and with corn many farmers who have an old fashioned reaper available, have the ideal machine for cutting and curing soy bean hay. In cutting with this reaper no other handling of the hay is necessary until it is loaded on the wagon. Mr. Lee of Green Lake County says there is nothing to curing soy bean hay when a reaper is available. All you have to do is to cut it and just wait until it is dry enough to put it into the mow. Michael O'Keefe of Portage County, Wisconsin, has used the common binder to advantage for past two seasons. He cuts and shocks his soys for hay as one would for grain with best of

(Continued on page 118)



V. P. Atwell, one of the largest growers of soy beans in Wisconsin, says that the reaper is indispensable in cutting soy beans for hay or for seed. Mr. Atwell has raised hundreds of acres yearly for several past seasons.

GROWING ALFALFA SEED IN WISCONSIN

R. A. MOORE, Wisconsin College of Agriculture

FOR the past quarter of a century, Wisconsin has made wonderful strides in the growing of alfalfa as a hay crop and to some extent in using the crop for silage. However, it was not until three or four years ago that much of any attempt was made to grow alfalfa seed. The same feeling existed among our farmers in regard to growing seed as existed 25 years ago in regard to the growing of alfalfa as a hay crop. Very few then thought it could be done. Now nearly every farmer is convinced that under proper care and management he can grow alfalfa as a hay crop luxuriantly and find it to be one of the very best crops that he grows upon his farm.

The interest is so great that the acreage increased from practically 150,000 acres of alfalfa this year to 800,000 and we will not be surprised if the acreage really doubles again next year. However, the growing of alfalfa seed has only been attempted by a comparatively few of our alfalfa growers when we consider the large number who are now growing this great forage plant. Three years ago a campaign was put on through the Wisconsin Experiment Association to grow alfalfa seed. Our Association which is the leading seed growing association in America, saw no reason why a systematic study should not be made of the various conditions that would enable the average alfalfa grower to grow seed to be placed on the market. Through this campaign the second cutting of many of the older fields was left for seed and the sum total of 2,500 bushels was grown in 1921. Again in 1922 an increase of 500 bushels was obtained with a total of 3,000 bushels and in 1923 another increase was obtained and the sum total of 4,000 bushels of alfalfa seed was grown. Nearly one-half of all the seed grown was Grimm seed and its origin could be traced back to the genuine Grimm stock. Much of the other seed grown in Wisconsin came from older fields in which there was some doubt as to its true identity. Some of this undoubtedly came from the Grimm stock, but was not purchased under that name. Others came from hardy northern grown stock and consequently was hardy seed.

Yields of Seed Per Acre

From the tests run in the state of Wisconsin, it was found that the largest yields recorded were from the true Grimm stock and fields that were at least two years old or over. The writer had the pleasure of visiting a field of 15 acres of alfalfa on Mr. Neil Quotsoe's farm at DePere. This 15 acres grew $1,440 worth of seed last year. Mr. Quotsoe was very enthusiastic over the seed proposition and claimed that he expected to leave at least 25 acres go to seed this year.

Effect of Cutting Alfalfa for Seed Upon the Subsequent Crop

This field of Mr. Quotsoe's was visited quite largely to note what effect the harvesting of alfalfa seed had upon the crop the coming year. These fields had already been cut once and an exceedingly fine stand of second growth was coming on rapidly. It was estimated that it would reach the cutting stage for hay in about two weeks. This field, with other fields that were cut for seed last year visited, showed beyond the least shade of doubt that no harmful effect would come to the alfalfa from using the crop for seed instead of using it for hay.

Crop to Be Taken for Seed

Nearly all of the alfalfa fields that were saved for seed last year came from the second cutting, although in a few cases the third cutting was used. However, the facts gathered from those experienced in growing alfalfa seed seemed to favor the second cutting. This order of taking the second cutting for seed will be carried out again this year.

Suggestions Relative to Determining Whether or Not a Seed Crop Will Develop

Alfalfa seed develops most largely during a dry period of time. The alfalfa blossoms are very delicate and when in full bloom a short, sudden shower can destroy nearly all the fertilization, so consequently a crop that passed through this ordeal would not be worth while saving for seed. However, during the latter part of July and the month of August, we usually have dry weather. If we have showers that are merely local and while many fields would be damaged from the point of yielding seed, yet many other fields in the same township might not be touched by a sudden shower and consequently would be in prime condition to produce seed. There is at least a week that the flower should open and not be subject to a sudden downpour of rain in order to fertilize to best advantage. Honey bees and other insects help materially in tripping the flowers to aid fertilization, so consequently in a region where honey bees are quite numerous, we can expect a larger yield of seed per acre than places that are several miles remote from honey bees.

Whether or Not the Crop Should Be Saved for Seed

Through careful work on the cutting stage of alfalfa we have states now that advocate much later cutting than heretofore. Where careful experiments have been carried on, it has been found that the full bloom stage, like the red clover stage, is practically the proper stage to cut for the best protection of the plants and for the greatest amount of hay. If a farmer wishes to determine whether or not his fields should be left for hay he can let the second cutting come into full bloom and then wait a few days for the advanced flowers to show some signs of whether or not they will produce seed. There are always some plants that blossom a few days in advance of others and these particular plants would show the little green spiral pods on the various branches of the plant. This is a sure indication that seed is developing and consequently a farmer can rest assured that he is going to have a supply of seed. However, on the other hand, if the examination showed that there were very few if any of these spiral pods developing there would yet be ample time for him to take this cutting for hay as he did the first cutting, so consequently the saving of this crop to determine whether or not it would develop seed would not in any great degree injure the hay crop from the second cutting.

Alfalfa, when cut for seed, is handled practically the same way that red or alsike clover is handled. Often with merely a buncher attachment or a side delivery which enables the alfalfa to be carried to the side and deposited as a windrow where it can go through the drying process and be easily taken up into box racks and stored away in barns or drawn directly to the huller after drying. The regular clover huller is altogether the best machine for taking out the seed, although some separators with clover seed attachment do the work fairly well. However, the regular huller does considerable in the way of scarifying the seed while hulling and consequently leaves the seed in much better form than other devices.

Yield of Seed Per Acre

The yield of seed varies quite as much as red and alsike clover. However, the data at the present time would show a much larger average yield than received from clover. We have records showing a yield as high as eight bushels of Grimm seed per acre. We have other records of six bushels and better and often we find as high as four bushels per acre threshed from various fields. Where farmers are growing the regular Grimm seed, they usually find a ready market from 35 to 40 cents per pound. This makes it an extremely profitable crop to grow, besides the straw or hulm is of considerable value as a feed after the alfalfa seed is hulled. Sheep and other classes of live stock will eat the ground stems of alfalfa very readily, so consequently a farmer gets some return from this as well as having his seed crop.

Wisconsin Seed in Comparison with Seeds Grown in Other States

Several pieces of new seeding were inspected this year to determine whether or not Wisconsin seed would compare favorably with the seed coming from western and northwestern states. In every instance the Wisconsin seed seemed to give a good account of itself. There were also fields that had been put in two years ago from Wisconsin seed and even the common seed grown in the state seemed to give most excellent returns. This seemed quite natural from the fact that nearly all of the common seed which was grown in Wisconsin came from fields that were from three to six and even eight years old, so consequently if the alfalfa had not been of a hardy strain it would have died out before reaching that stage in the years of its growth. Not a single failure, so far as could be determined this year, was determined from fields that were seeded with Wisconsin grown seed. We are looking forward with a great deal of interest to this great industry which we feel is sure to come and be of immense benefit to the farmer. We hope every farmer will think over this matter before harvesting all of his second cutting of alfalfa for hay. Many who have an ample supply of hay for this year can well afford to wait to determine whether or not their second cutting may produce a bountiful crop of seed in which case he will be amply remunerated in saving his second cutting for seed.



THE DAIRY COW BREAKS INTO SOCIETY

Left to right: W. Palmer Clarkson, president of St. Louis Chamber of Commerce, about to be decorated with second prize by Acting Mayor Neun of St. Louis. "Close-up" of Mr. Clarkson in action. The eight dairy maids who served in the cow milking contest.

On July 17th the dairy cow officially broke into St. Louis society. The occasion was the 10th Annual Benefit Baseball Game of the St. Louis Tuberculosis Society between the National League teams of St. Louis and Boston. The event was a cow milking contest between three prominent citizens of St. Louis who felt their hands had not lost the old time cunning at milking.

Fifteen thousand people were at the ball park when three pure-bred Holsteins from the herd of F. W. A. Vesper, proprietor of Fredmar Farms, were escorted to their places by eight dairymaids and several leading citizens. The three contestants were W. Palmer Clarkson, president of the St. Louis Chamber of Commerce; William H. Tiffin, mayor of Ferguson, a suburb of St. Louis; and Flint E. Garrison, chairman of the St. Louis Style Show Committee. The milking contest lasted four minutes. Mayor Tiffin won first place by drawing 12¼ pounds in the four minutes.—W. A. FOSTER.

Uncle Ab says country life is the best only when those who live it think so.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Calif.	Chileno-Sal.	July	G. H.	47.7	Bloom Bros.
Mass.	N. & C. Berkshire	June	R. H.	72.0	S. Kelly
Mich.	N. Kent	"	G. G.	56.2	C. Young
"	S. Van Buren	"	G. J.	66.7	V. W. Olds
"	St. Joseph	"	G. J.	84.6	W. C. & C. L. Harder
"	S. Kent	"	R. H.	73.0	W. R. Harper
"	Trav.-Antrim	July	G. G.	62.2	H. P. Hogan
Wis.	Columbia	"	G. H.	54.0	M. Fitzgerald
"	Clinton	"	R. H.	65.7	Duoss Bros.
"	W. Salem Ban.	"	G. H.	66.3	H. Niedfeldt
"	Eau Claire 3	"	R. H.	125.4	T. Mathiews
"	Alma-Coch.	"	R. H.	72.4	Marks Bros.
"	Stratford	"	G. G.	62.0	H. E. Kaetterhenry

Association Notes by Testers

Northern and Central Berkshire, Mass.: Many farmers have had their soil tested and are busy preparing for alfalfa. Several have been successful this year with small patches they put in to experiment with. One new member joined the association. Pittsfield Milk Exchange paid $2.90 per cwt. for 3.5 per cent milk; Sheffield Farms, $1.73 for 3 per cent milk; Dairymen's League, $1.94 for 4 per cent milk. Milk retailed for 13—14 cents per quart.—T. H. Weed.

North Kent, Mich.: Fourteen members feed grain. One member feeds in the barn and does not pasture his cows. One new separator was installed and another repaired. Market milk sold for $2.30 per cwt. The condensery paid $1.75 or 4 per cent milk.—H. Hansen.

South Van Buren, Mich.: The high cow for the year, owned by B. M. Poorman, made 9,627 lbs. milk, 528.2 lbs. fat. The average production per cow in the association was 6,923 lbs. milk, 348.5 lbs. fat. All members use pure-bred sires. One hundred and eighty cows were tested for tuberculosis and only 4 reactors found. Nine separators were tested monthly during the year and only one had to be repaired. Market milk sold for $3.20 per cwt. The creamery paid $2.50 for 3.5 per cent milk.—L. S. Ashley.

St. Joseph, Mich.: During June 278 cows were tested, with an average production of 624 lbs. milk, 21.9 lbs. fat. The average value of product above cost of feed was $8.88 per cow. Market milk sold for $2.82 per cwt.—R. S. Tompkins.

Traverse—Antrim, Mich.: An interesting dairymen's meeting was held July 3 at the Elk Lake Inn. After a chicken dinner was served, interesting talks were given by Professor Humphrey of the University of Wisconsin, and County Agent L. L. Drake of Antrim County. Market milk sold for $1.75 per cwt. and retailed for 10 cents per quart.—R. J. Kaiser.

Columbia Co., Wis.: One silo was erected. One new member joined the association. T. B. testing is in full swing and few reactors are being found. In July the condensery paid 39 cents per lb. for fat, the cheese factory, 38 cents; the creamery, 42 cents. Milk retailed for 8 cents per quart.—A. H. Weber.

Eau Claire No. 3, Wis.: Three cows tested in July made over 100 lbs. fat, 2 over 90 lbs., and 44 over 40 lbs. This month closes the testing year, with the high cow having a record of 750.4 lbs. fat, owned by Robert Ray. High herd average is held by Theodore Mathiews, with an average production of 476.66 lbs. fat.—S. Lowe.

Alma—Cochrane, Wis.: The average production per cow increased from 6,857 lbs. milk to 7,723 lbs. and from 243.5 lbs. fat to 268.52 lbs. in one year. One milk house was painted inside and 2 barns painted. Two more retests were made. The creamery paid 43 cents per lb. for fat in July.—E. R. Bailey.

Cows for the National

In a letter to one of the supervisors of cow testing associations in Wisconsin, D. P. Hughes of the Dunn County School of Agriculture, says:

"You will be interested to know that we held a meeting of the committee for boosting the National Dairy Show a few evenings ago. At that meeting it was decided to send a carload of ten or twelve cow testing association record cows to the Dairy Exposition. It was also decided to send a carload of calves from the boys' and girls' clubs.

"Best wishes for your success in putting on the greatest Cow Testing Association Exhibit ever held in Wisconsin. Cow testing is doing more for the dairy industry than any other single line of work."

Yearly Report Dubuque No. 3 Association

The first year of work in the Dubuque No. 3, Iowa, Association was complete in May. The average production of 192 cows on test was 5,212 lbs. milk, 229.1 lbs. fat. The high cow, a grade Jersey by the name of Goldie, owned by Chas. A. Hamil, produced 9,660 lbs. milk and 527.6 lbs. fat at a feed cost of $87.36 and a profit above feed cost of $184.08. The high herd of twelve grade Jerseys owned by Chas. A. Hamil produced an average of 7,051 lbs. milk and 364 lbs. fat at a feed cost of $84.76 and $98.20 profit.

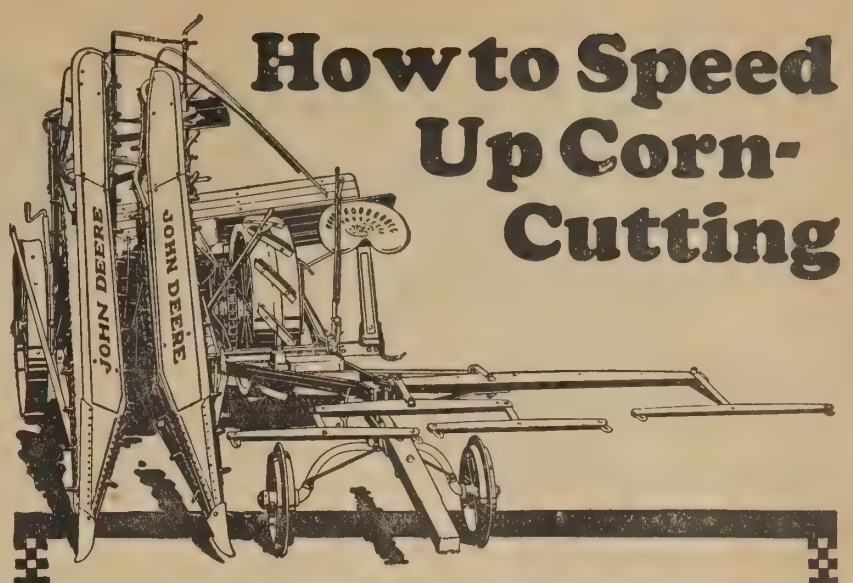
Three silos were built and five new separators were bought. There were several scrub bulls in the association at the beginning of last year which were all replaced by pure-breds.—ALFRED B. BREITBACH, Tester.

When men are friendly even water is sweet.—Proverbs of China.



SOUTH DAKOTA TESTERS

These testers met at Brookings last June and formed a testers' association with F. A. Revell as president, F. E. Hanson as vice-president, and C. E. Heeren as secretary.



How to Speed Up Corn-Cutting

That job of cutting corn for either fodder or silage is shortened by days when a John Deere Corn Binder goes into your fields. Seven acres of corn cut and bound ready for the shock or silo is an average day's work with this time- and labor-saving equipment.

When you get through in your own fields, there's always work for you in the neighborhood, at a profit.

John Deere Corn Binder

The Binder with Power Carrier and Quick-Turn Truck

Operating a John Deere is mostly a horse-driving job—there's no real work about it. There's no work of dumping the bundle carrier and returning it to position hundreds of times a day. The power carrier does all this work for you—merely press a foot lever and the power carrier dumps the bundles free from the horses' path, and practically parallel to the standing corn.

The Quick-Turn Tongue Truck is another feature you will appreciate because it takes neck weight from the horses—makes it easy for the horses to turn at the ends and keeps the binder running straight—sluing on side hills is largely done away with.

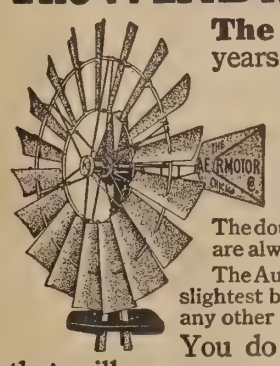
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Oil an Aermotor once a year and it is always oiled. It never makes a squeak.

The double gears run in oil in a tightly enclosed gear case. They are always flooded with oil and are protected from dust and sleet.

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FLEMING BROS. 194 UNION STOCK YARDS CHICAGO

"27 Years at the Stock Yards"

EDITORIAL COMMENT



THE dairy industry is already a tremendously big business. In 1923 the total income for dairy products and dairy animals slaughtered for beef and the increase in the number of dairy cows amounted close to $3,000,000,000, or very nearly 25 per cent of the total value of all farm products in 1923.

COW TESTING DEVELOPS MEN

One of our subscribers in Michigan, Mr. E. P. Reynolds, sends us the record of a herd in his community, owned by Mr. C. E. Burke, that averaged 513.6 lbs. fat last year and the previous year 425.5 lbs. fat. Mr. Burke owns 7 registered Holstein cows and they are producing for him more fat than 24 average cows and making him ten or more times the profit.

We can't expect the average good dairyman to have his herd average to produce 500 lbs. fat a year. We have often stated that a herd that averages 300 lbs. is doing exceptionally well.

It requires men of keen understanding of the principles and practices of dairying to raise a herd of cows that will average 500 lbs. of fat per year. We have cows, of course, that yield two and three times as much, but when a whole herd averages 500 lbs. fat, the man back of it possesses unusual dairy ability.

FLIRTING WITH DAIRY COW

In the past year or two many sections of the country have been giving more than passing notice to the dairy cow. In prosperous times these communities flirted with the dairy cow and a few men here and there accepted her as part of their farming operations.

A recent letter from one of our subscribers states that the community in which he lives lacks real dairy stock but does not care to invest in the highest priced cows. The thing really lacking in most communities that do not have dairy cows is genuine dairy sentiment. A man who prefers to grow wheat and does not like live stock, will not make a success with the dairy cow. Conferences, propaganda, and oratory will not develop the proper sentiment for dairying. It is something that must be, to some degree, at least, inherited. Then, by proper instruction and sound information, dairymen may be developed and successful dairy communities established. Wherever dairying has been a success it has been a gradual growth, building step by step.

We suspect many sections, which have been rather enthusiastic for the dairy cow, will now begin to turn a cold shoulder to her since the prices of wheat, corn, and hogs are coming to their own. Dairying is making substantial growth; it is moving forward in its total production as rapidly as it should. We need no brass bands or forcing methods to bring the cow into the hands of men who will give her the right kind of treatment in order to make a success with her.

POOR COWS AND SURPLUS MILK

The Virginia Extension Service in its work came across a dairy farmer milking 36 cows. It was found that eighteen of his cows were returning him a good profit and eighteen were being kept at a loss. It was also found that there is a surplus of milk in several of the cities in Virginia. The question comes, why should this Virginia farmer milk thirty-six cows when only eighteen of them were returning him a profit and the other eighteen were taking some of his hard earned cash for their keep. Further, these eighteen unprofitable cows were producing the surplus which helped to depress the prices of the milk of the entire community. Still we have men preaching and writing that efficiency will not solve the dairy farmers' problem.

Think about this Virginia farmer working hard, early and late, in order to earn enough money with the eighteen good cows to help pay the losses sustained by eighteen poor ones. If their injury would stop there, it wouldn't be so bad. No one would be penalized but the farmer himself.

Surplus milk comes from inefficient cows—those which do not pay for the cost of feed consumed. Surplus milk has in many instances depressed the price of all market milk and made it sell below the cost of production. There are many remedies for a situation of this character but the best one—and it is in control of the dairy farmer himself—is to dispose of all the cows that do not pay for feed consumed. There is no law forcing the dairy farmer to milk poor cows; there is no monopoly which forces him to keep them, and he cannot honestly blame any one because he keeps them. It would seem, as we survey the cow situation in this country, that a considerable number of men milking cows prefer some poor cows.

For more complete report see next page.

PITTSBURG PLUS VICTORY

Farm organizations are rejoicing over the decision of the Federal Trade Commission outlawing "Pittsburg Plus". In commenting upon this decision, the Illinois Agricultural Association says:

"It is conservatively estimated that the abolition of 'Pittsburg Plus' will save the farmers of Illinois over $3,000,000 each year and approximately the same result will apply to the other great agricultural states. The Federal Trade Commission, in rendering the decision, states that 'Pittsburg Plus' specifically adds $30,000,000 annually to the cost of steel products bought by farmers in eleven western states which include Illinois. Our farm bureau investigations show that approximately $55,000,000 is the amount of the annual saving effected for American farmers in the aggregate.

"This victory is conclusive proof that organized and united effort on the part of the farmers is necessary to overcome some of the difficulties which confront the American farmer. This decision could not have been accomplished without the united effort and influence of strong organization.

"It also demonstrates the wisdom of having farmers on the federal boards and commissions; men that can be depended upon as having the interests of America's basic industry at heart.

"The research department of the American Farm Bureau Federation is authority for the statement that the $30,000,000 annual saving to farmers in eleven states, as shown in the Federal Trade Commission's report, would pay all costs of running the Farm Bureau with its 1,800 county farm bureaus, 45 state organizations, and its national unit for 10 years."

COMMUNITY OWNERSHIP

America is noted for its development of labor saving devices and machinery for operating the land. Machinery has taken drudgery out of farming. There is scarcely any operation on the farm now that cannot be done by some kind of machinery. It doesn't always pay, however, for one farmer to purchase a machine for doing a certain type of work because there is not a sufficient volume of business on one farm to warrant the outlay of money. To get the most out of a piece of machinery it should be used considerably or the interest on the investment and the depreciation cost more than the machine will contribute. The milking machine, the hand separator, the rake, the manure spreader, and many others are in constant use on the dairy farm. There are machines like the threshing machine, the ensilage cutter, trucks, tractors, cement mixers, etc., which may be owned by a community.

There are advantages in forming a rural transportation company and having one truck do all the hauling for several farmers in the community. There is opportunity for a group of farmers to own a threshing machine. Small sized machines are being built, the kind most dairy farmers require. On account of their cows they cannot start to thresh early in the morning and they must quit early in the afternoon. The threshing is done very largely by dairy farmers by the exchange of help. If a half dozen or more buy a threshing machine together, the outlay is small and the work can be done when it is most convenient. The same can be said of other pieces of machinery that we have mentioned.

Concrete is an important material on the dairy farm and it is being commonly and extensively used. The cement mixer saves much hand labor and does the mixing better. A machine of this kind could be owned by a considerable number of farmers and even though they had but little concrete work to do each year it would adequately pay to have a machine for mixing concrete.

Already these ideas are being carried out, for we find farmers owning silage cutters, threshers, tractors, and various other kinds of machines in common. We believe there is opportunity to develop the community ownership idea to a greater extent than it is carried on at the present time. The dairy farmer has so much work which machinery can do that it will pay him better perhaps than any other farmer to co-operate with his neighbor in owning certain kinds of machinery.

WELL BALANCED PROGRAM

The National Grange is a well balanced farm organization. It not only gives attention to economic problems of the farm, laws that will give agriculture an equal opportunity with all other industries and to principles and practices which will place agriculture upon a sound business basis, but it also directs itself to educating its members in what constitutes sound Americanism. We take the following quotation from a Grange pamphlet:

"This is brought about by keeping the ideals of American citizenship constantly before the meetings and featuring phases of American history and accomplishments as regular program features in Grange gatherings. Granges everywhere devote at least one meeting a year to strictly patriotic topics, frequently entertain war veterans and allied organizations, and the Grange meetings provide a convenient forum for the discussion of many of the live public questions of the day.

"More than 30 years ago a Grange custom was established of displaying the national colors in every Grange hall, and a significant ruling has just been made by the Master of the National Grange to the effect that from now on no legal Grange meeting can be held in the United States unless the American flag, like the open Bible upon the altar, is in position in the hall. Hundreds of Granges repeat in unison the Pledge to the Flag as a part of their formal opening exercises, accompanied by singing of the national anthem. During the World War the Grange was a leading factor in hundreds of rural communities in carrying forward war work, and all its ritualistic and program teachings inculcate love of country and reverence for the flag."

It is well that farm organizations devote themselves to making agriculture more profitable, but in so doing they should not neglect the opportunity to teach the true principles of American citizenship and our form of government and its meaning. The chief reason for increased profits of farming is to permit the building of better farm homes that better men and women may be raised in them. The Grange shows itself a well balanced farm organization because its program and teachings encompass all the activities which are necessary to make its members capable farmers and good American citizens.

Foot and Mouth Disease Losses

Please give the number of dairy cattle (and other cattle if you have record) slaughtered in California this year on account of the foot and mouth disease and what they were valued at.

Colorado Springs, Colo. E. H. R.

This inquiry was referred to the U. S. Bureau of Animal Industry, which replies as follows:

"Up to the close of July 6, approximately 50,000 cattle had been appraised and slaughtered on account of being affected with or exposed to this disease. Of this number probably 40,000 were animals of the beef breeds, the remainder being of dairy types, but largely grade animals.

"We are not in position to give the exact figures at which these animals were appraised but from the data that have been assembled it appears that the average for beef cattle has been about $65 per animal and for the grade dairy cattle about $100 per animal, 50 per cent of the appraisement in each instance being paid by the federal government and 50 per cent by the state of California. One of the finest pure-bred herds of Holstein cattle in this country, that of Mr. Fred Hartsook of Los Angeles, contracted the disease and was slaughtered. The average appraisement on this herd, consisting of about 370 animals, was in round figures $427 per animal.

Butter and Butterfat Prices

Our creamery is paying its patrons 40 cents a pound for butterfat in sweet cream and sells its butter wholesale at 45 cents a pound. It has an output of 350 to 400 lbs. of butter a day. It also makes quite a lot of ice cream. They tell us they can't pay more because they have such a high overhead. They employ six men in the creamery (including the ice cream) and have four men to collect cream. Shouldn't they be able to pay at least butter price for butterfat?

Mercedes, Texas. H. F. B.

I would not be in position to make any statement as to what a local creamery should pay the producers for cream, as I am not well enough familiar with the cost of operation in the state of Texas. I can, however, make a statement in reference to what the relation is between the price received for the butter and price paid for butterfat in the state of Iowa. We have during the past year made a survey covering 115 of the Iowa creameries, and from this survey we have obtained the following results:

Creameries manufacturing less than 100,000 lbs. of butter per year paid .76 cents more per pound of butterfat than the butter netted at the creamery.

Creameries manufacturing from 100,000 to 200,000 lbs. of butter per year paid 3.10 cents above the butter price.

Creameries manufacturing from 200,000 to 300,000 lbs. of butter per year paid 4.10 cents above the butter price.

Creameries manufacturing from 300,000 to 400,000 lbs. of butter per year paid 4.61 cents above butter price.

Creameries manufacturing from 400,000 to 500,000 lbs. of butter per year paid 5.03 cents above butter price and creameries manufacturing over 500,000 lbs. per year paid 5.30 cents above the butter price.

This includes only co-operative creameries, declaring no profits. I am not ready to state that a co-operative creamery could be operated on an equal economic basis in Texas.

Iowa College of Agr. M. MORTENSON.

Surplus Milk and a Remedy

During the last few months the Washington and Richmond fluid milk markets have been flooded with the largest surplus in the history of these markets. This has made it necessary for the dealers to divert this large amount of surplus milk to manufacturing channels. As the prices received for these manufactured products have been relatively very low it reduced the general price level very considerably. This glutted condition also made for very unhealthy market conditions.

The best way to wipe out this surplus, and thus restore a normal and healthy market, would be by disposing of all "boarder" or unprofitable cows.

Cow testing association records are proving of immense value in helping dairymen to find out these "boarder" or unprofitable cows. Here is what the records of a 36-cow dairy shipping to the Washington market showed. The 36 cows had a total production of 213,744 lbs. milk, and 7,613.6 lbs. fat. This brought in a total return at the farm of $6,381.44. The total feed cost was $3,346.70, which left an income over feed cost of $3,034.74. After crediting the value of manure and calves and deducting all overhead charges it left a net profit of $1,124.53.

For each cow in the herd there was an average production of 6,048 lbs. milk, and 211.5 lbs. fat. A return of $177.26 was received at a feed cost of $92.96. Therefore the income over feed cost was $84.30 while the net profit was $31.24.

By dividing the herd in two parts and placing the records of the highest eighteen milk producers in one group, and the lowest eighteen milk producers in another group, some startling information was brought out. The cows in the first group produced 142,517 lbs. milk and made a total net profit of $1,322.46. The cows in the second group produced 71,227 lbs. milk and showed a net loss of $197.77. In other words, if this dairyman had had the first group of eighteen cows instead of having the whole herd of thirty-six, he would have been $199.77 better off at the end of the year and would have relieved the market of 71,227 lbs. milk during the year. With cows in the first group he was able to make milk at a feed cost of $1.36 per hundred, while with the cows in the second group, which were making the cheap, surplus milk, it cost $1.98 to produce one hundred pounds of milk.

When we consider that most of the herds in the country are about on the same footing as this herd, it can easily be seen that by getting rid of the "boarder" cow the surplus would disappear, market conditions would improve, the cost of production would be lowered, and profits would increase.

Virginia. L. P. EMMERICK.

Keeping the Ton Litter Healthy and Comfortable

Are some of the pigs in that prospective ton litter failing to make the proper gains? Do several of them show signs of unthriftiness, with a rough staring coat of hair, thinness of flesh, and a continuous cough?

If such is the case, the trouble may be due to infestation by the intestinal round worm. The best methods of treatment, as recommended by a number of experiment stations, are the use of oil of chenopodium or santonin. For a 50-lb. pig, 2 cubic centimeters of oil of chenopodium, well mixed with 15 cubic centimeters of castor oil, should be given. It is best administered with a dose syringe. For larger or smaller pigs, proportionate amounts should be used.

The dose of santonin is 5 grains for a 50-lb. pig. It is best given in a capsule with 2 grains of calomel. These capsules should be administered by means of a capsule gun and jaw spreader. Care must be taken to avoid lodgment of the capsule in the throat. The purgatives, such as castor oil, help to expel dead or stupified worms, and protect the animals from the bad effects of the vermifuge. All feed should be withheld from the pigs for 24 hours before treating. If any of the pigs of the Ton Litter are infested with round worms, treatment will be necessary before they can be expected to make their required weight.

Hog Lice Cause Misery

But perhaps the unthrifty condition is not caused by round worms or other internal parasites. The presence of hog lice or mange mites will make pigs miserable. If hog lice are present in large numbers, they will seriously irritate the animals, retard their growth, lessen their vitality, and lower their resistance to disease. The hog lice are found only on hogs and when separated from the animals they live only a few days. So practically all cases of infestation occur from contact with lousy animals. As a precautionary measure, however, the hog houses should be thoroughly cleaned and disinfected. The coal-tar-creosote dips, diluted according to instructions given on the containers, are suitable for this purpose.

As a treatment for lice, applications of crude petroleum, crank-case oil, and kerosene emulsion are good. For kerosene emulsion add 2 gallons of kerosene to one gallon of warm water, in which one-half pound of castile soap has been dissolved.

Use Oils for Treatment

Processed oils, preferably the thinner ones, may also be added. Fuel oil is often used, and its effectiveness increased by adding one quart of kerosene to five gallons of oil.

Where only a few animals are to be treated, the task may best be handled by applying crude oil by cloth or brush; or the hogs may be sprayed with crude petroleum oil, fuel oil, or kerosene emulsion, using an ordinary spray pump or hand sprinkler. Then if they are confined in a small pen, they will rub against each other and each hog will become thoroughly oiled.

A third method is dipping which requires wood or concrete vats. A vat 54 inches deep, 24 inches wide at the top, and 12-16 inches at the bottom is recommended. Its length at the bottom should be about 10 feet and at the top 20 feet. The dipping vat, filled with 40-44 inches of water, will allow for a 2- to 4-inch covering of oil on the surface.

Put Oil in Hog Wallow

A simpler method of treatment is to place crude oil in a cement hog wallow which is 7 to 8 inches deep. If a two-inch layer of crude oil is added to the water in the evening, it will have been taken up and smeared over the pigs' bodies before the sun becomes hot the following noon.

Even where no lice are present, a cement hog wallow can be of great value to the Ton Litter owner. Naturally the pigs will hunt the mud puddles in which to lie during the hot days. If these wallows were always clean, all would be fine. But too often they harbor disease germs. It will be far better to drain the mud wallows and build a shallow cement wallow, which is provided with a drain to keep it clean and sanitary.

The treatment given above will not destroy the eggs of the lice, so it is advisable to re-treat in 7 to 10 days. Where a few lice are present, but the litter or herd is not badly infested, mechanical oilers or rubbing posts wound with ropes or sacks that have been soaked in crude oil will keep the lice in check.

Mange Causes Sore Skins

Where the Ton Litter becomes infested with mange, more serious results will appear. There are two kinds of mange in pigs. One is caused by a mite too small to be seen without a magnifying glass. This tunnels into the deeper layers of the skin and deposits eggs. When these hatch they cause irritation and form blisters and scabs. The scabs first appear about the eyes, nose, and ears, and the root of the tail, and then gradually extend over the full length of the body. Often the skin becomes thickened into rough folds. The other mange mite burrows into the hair follicles, producing pustules that may break and discharge pus.

The mites and eggs are readily transmitted from one hog to another or from contaminated bedding or rubbing posts. The mange mites live for several weeks in pens or bedding if not exposed to direct sunlight. The first form of mange mite works on other farm animals as well as man.

Treat With Lime—Sulphur

The best remedy for mange is to first wash the animals thoroughly with soap and water and then dip them in lime-sulphur. This is prepared as follows: 12 lbs. of unslaked lime, 24 lbs. of sulphur, and sufficient water to make 100 gallons. Slake the lime with enough water to make a thin paste and add the sulphur. Then add the lime and sulphur paste to 30 gallons of boiling water and boil for 1½ to 2 hours. Stir frequently while boiling.

Allow the solution to stand until all the solids have settled. Then pour off the clear orange colored liquid and add enough water to make 100 gallons. Use while warm. If only a few pigs are to be treated, the dip may be applied to the entire body of the pig with a stiff brush. This treatment does not kill the eggs, so a second treatment should follow in six or seven days. After treatment the pigs should be placed in clean, disinfected quarters and given plenty of nourishing food.

Give Pigs a Fighting Chance

Where the Ton Litter pastures in a field without trees, artificial shade should be provided. A frame work of posts roofed over, or an open shed providing good circulation of air is good. With shade and ample supply of clean water to drink and good pasture, the pigs will reach their goal of a ton in six months much more readily than if kept in the old hog lot and required to frequent an old germ laden mud wallow in order to keep cool. Sanitation and comfort are needed to make a Ton Litter.—H. J. GRANT, Swine Extension Specialist, Wisconsin College of Agriculture.

Hoard's Dairyman

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H. L. HOARD, A. R. HOARD, F. W. HOARD
EDITORS
A. J. GLOVER, P. C. BURCHARD

General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
Live Stock Advertising - JOHN G. POYNTON
Junior Editor - - RUSSELL E. FROST

Corresponding Editorial Staff:
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H. B. GURLER - - - - - Mississippi
H. H. LYON - - - - - New York
DR. E. V. MCCOLLUM Johns Hopkins University
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ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

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Coming Events

Sept. 14-20—Eastern States Exposition at Springfield, Mass.
Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.
Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.
Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.
Nov. 1-8—Pacific International Live Stock Exposition, Portland, Ore.

Illinois Holstein Champion

Brownwood Pledge De Kol is now Illinois' leading Holstein cow for production in ten months as a senior four-year-old. Her record is 16,281.6 pounds milk containing 541.91 pounds butterfat—equal to 677.3 pounds butter. She is owned by H. M. Wood.—Extension Service Holstein-Friesian Ass'n. of America.

Creamery Institute to Aid Farmers

Establishment of a Creamery Institute as a potent factor for the advancement of the dairy industry—an educational institution to show the average farmer of the United States how to make more money and improve his dairying efforts—was announced here today by J. A. Walker, vice-president and directing head of the Blue Valley Creamery Company, who for more than thirty years has been one of the dominant forces in the dairy field of the nation. In making the announcement, Mr. Walker stated that he was considering turning over a considerable sum of money to be expended over a period of time toward building a greater dairy industry, emphasizing diversification, balanced farming, and more



J. A. WALKER

efficient methods with dairy cows, hogs, and hens.

Mr. Walker declared that the Creamery Institute would at once start an intensive educational campaign to increase the buying power of farmers in the Mississippi Valley by showing them how to manage a small herd of dairy cows in such a way as to provide an income equal to the wage received by the skilled laborer of the city who buys the butter. Expert dairymen and trained dairy scientists will be in charge of the various divisions of the Creamery Institute which will have its headquarters in Chicago. Branch offices will be established in many other cities.

"The time has come when American farmers have definitely passed the pioneer, soil-robbing stage of agriculture," said Mr. Walker. "From now on we must develop a soil-enriching, profit-making type of farming. The experiment stations, agricultural colleges, county agents, and farm bureaus declare that the dairy cow offers the quickest and safest means of insuring a steady and adequate farm return.

"The Mississippi Valley is the dimple of the universe. In this section, noted for its corn, hogs, and beef, we find that the cream can has outstripped them all as an actual profit maker for the farmer, but despite the fact that the creamery route offers the farmer his finest opportunity for ready and steady money, the consumer cannot get enough cream. This is due to the prejudice against pulling teats which arose in the days of huger pastures, unlimited range, and cowboys who drank canned milk.

"While we should be proud of what has been accomplished in the Mississippi Valley, we haven't made it produce half of what it should. To increase the dairy production in this area, as elsewhere, is the purpose of the Institute.

"There has been a rising tide of popularity in intensive farming. As agriculture is brought face to face with higher costs of production and farmers find that they cannot get by on high priced land, it has been necessary to turn to diversification, to small crops, and to the keeping of the cow, the sow, and the hen. Deflation has made every banker and farm leader see these things."

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

Washington, Aug. 6—Dr. H. C. Taylor, chief of the Bureau of Agricultural Economics, and Mrs. Taylor, have returned from an extended European trip, Dr. Taylor going as the head of the American delegation to the International Institute of Agriculture, and remaining for economic study in Berlin, Denmark, and England. Dr. Taylor says that he is strongly impressed with changes for the better in Germany. He noted change in their general outlook on life, resumption of religious faith, realization of the real result of the war, and determination to work their way back to economic soundness and industrial rehabilitation.

⚜

Figures are now available from Department of Commerce sources to substantiate the report written some time ago that Germany was beginning to resume a place as a big importer of butter. Last year, her January to April intake from Denmark was stated at but 323,000 lbs.; this year for the same months it was 15,773,000 lbs., or more than one-fifth the total Danish export trade in butter.

⚜

Director C. A. Browne of the Bureau of Chemistry, U. S. D. A. who is in charge of all food and drug law enforcement, gives the food manufacturers a high compliment, in making public a review of 12 months' operation of the law enforcement section of his bureau. "The majority of manufacturers," he says, "are putting out high grade products, and there is a smaller percentage of adulteration than ever before."

Out of about 12,000 cases of seizures, eggs figured in about 600 and dairy products in over 1,000. No mention is made of a single seizure of adulterated cheese, but butter short in fat and in short weight packages came in for plenty of attention. He says that there is to be no let-up in the vigor of law enforcement.

⚜

An egg inspection service is being established this month at Chicago by the dairy and poultry section of the Department of Agriculture. This is to meet widespread demand for this service, growing out of its successful operation in New York where nearly 5,000 cases of eggs were inspected last month for steamship lines, government hospitals, the U. S. Navy, and big chain restaurants. Service is to be established later, according to Roy C. Potts in charge, in Philadelphia, Boston, and San Francisco.

⚜

Two interesting questions will come up here the week of Aug. 18 when the Joint Committee on Food Standards and Definitions meets the representatives of the Ice Cream Manufacturers' Association, to determine a proper standard and definition for ice cream. One is how much should it weigh per gallon? The other is, what kind of sweetening may be used? The manufacturers say that a constant weight per gallon can not be maintained, under modern manufacturing methods, and are asking for a minimum far below what the committee wishes to grant. The committee wants the sweetening to be limited to sucrose—plain cane or beet sugar—but the manufacturers say that the new product, corn sugar, or dextrose, is better, more healthful, and while not quite as sweet, provides other fine qualities, and should be permitted. The hearing is likely to be held on Aug. 20.

At Milking Time

The shadows round the barn are long
And birds take up their evening song
At milking time;
The air is soft
And sweet and cool
Like liquid from
Some magic pool,
The clouds are tinged
With color red
And trees are still
To silence wed
At milking time.

The cows are waiting in the yard
While at their backs a lane is barred
At milking time;
The mill is dead
But now and then
An anxious cow
Is asking when,
And swooping low
A bat is seen
Against the dusk
Of Twilight's screen
At milking time.

And then the door is swung aside
And stanchions creak before the tide
At milking time;
The rafters ring
With noisy shouts
While bossies get
Mixed in their routes,
And hungry cats
Come 'round and sit
Until of milk
They've had their bit
At milking time.

A pitter patter strikes the pail
Like raindrops in an August gale,
At milking time;
A music strange
That stirs the blood
To measured beats
Of chewing cud
Sweeps down the aisle,
Lifts to the beams
And reaches to
The stars it seems
At milking time.

In words forgotten and tune all wrong
A raspy voice bursts out in song
At milking time;
The cares fly by
The worries cease
A furrowed brow
Forgets its crease—
For after all
It's good to be
Healthy, happy,
Strong and free
At milking time.

Montana. R. D. GALT.

Judging Dates

Wisconsin State Fair

Aug. 26—Jerseys—Judge, R. S. Hulce, Wisconsin.

Brown Swiss—Judge, Professor Geo. Humphrey, Wisconsin.

Holsteins—Judge, Ward W. Stevens, New York.

Aug. 27—Holsteins continued.

Aug. 28—Guernseys—Judge, R. S. Hulce, Wisconsin.

Ayrshires—Judge, A. J. Cramer, Wisconsin.

Iowa State Fair

August 25—Ayrshires. Judge, L. S. Gillette, Iowa. Guernseys—Judge, C. B. Finley, Iowa.

August 26—Holsteins. Judge, L. S. Gillette, Iowa. Jerseys—Judge, F. W. Barber, Tennessee.

August 27—Holsteins—Jerseys continued. Brown Swiss—Judge, C. B. Finley, Iowa.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Overproduction — No Such Anima!

HOARD'S DAIRYMAN:—I cannot help but cross swords with the writer of "Our Farmers Efficient" where he talks about overproduction. I claim there is no such thing. I have been among about all classes of society and seen thousands who did not have enough to eat, seldom had a full meal. Take the reports of our school officials who have investigated the condition of the children—they have found thousands who did not get enough to study on. One teacher in our city told me they had milk brought to the school and many children got it to drink and after a time many of them did much better in their studying; other cities have reported the same. The government report gotten out some years ago before the war, stated we produce collectively $1172 worth of wealth per day, but get back the huge sum of $252 per day collectively. That report took in those fellows who got up to $30,000 per year.

I have been in over 25 states of this Union and have kept my eyes open, at least tried to, and seen the condition of many people, seen much produce go to waste, and at the same time thousands at the verge of starvation. Why, because they did not get enough wages to buy back what they produced—then it's called overproduction; there is no such animal.

In this city, last year, many men were laid off at the factories, some lost what little they had paid on a house. They were willing to work, but those same factory managers would keep men from other towns steady at work. We have several car loads of men from outside towns come every day to work and our own men walk the streets. Why? It will not do to allow men to have anything ahead. They might ask for more wages. It's a well known fact—take us working men collectively, we are just two weeks from starvation. Thousands pay their grocery bills weekly, they cannot pay cash. Would not those people eat more if they got the wherewithal to buy it with? Is it just that some men should be allowed to pile up 9 millions a year and their workmen almost starve?

In the future talk about under consumption. If the workers were getting what they should the farmer would not be in such a position as he is financially. I consider the R. R. are to blame for much of our depression. I will cite a case; it holds good today.

Some years ago I thought I would get a carload of potatoes from Mauston, this state. They were selling at 50 cents in Kenosha but 19 cents there; looked up the freight rates and they were 33 cents per hundred, and at the same time wheat was being moved from Duluth to the seaboard for 6 cents per bu. You ask a R. R. manager what he bases his rates at and he will tell you, if honest, it's all the traffic will stand. What good is our R. R. commission? If the facts were known most of them hold their positions from big corporation influence. This state has a few commissions to spare.

Wisconsin. JAS. H. BIRCHARD.

Slipped on Thinking

HOARD'S DAIRYMAN:—Mr. Klein's and Mr. Dill's articles both make interesting reading but I wonder if they haven't slipped a little on their thinking. They seem to assume that the only way to counter an uppercut is with another uppercut. Organized labor and business monopolies have very perceptibly won a temporary advantage by a policy of restricted output. But taking Mr. Klein's manner or reasoning in June 27th issue, suppose all the farmers did cut production to one-half its present volume. Of course prices go up following the law of supply and demand. And then what? Well, there would be such a stampede into the various farm enterprises as followed the war time dairy prices. The result would be a tremendous overproduction just like we are suffering from now.

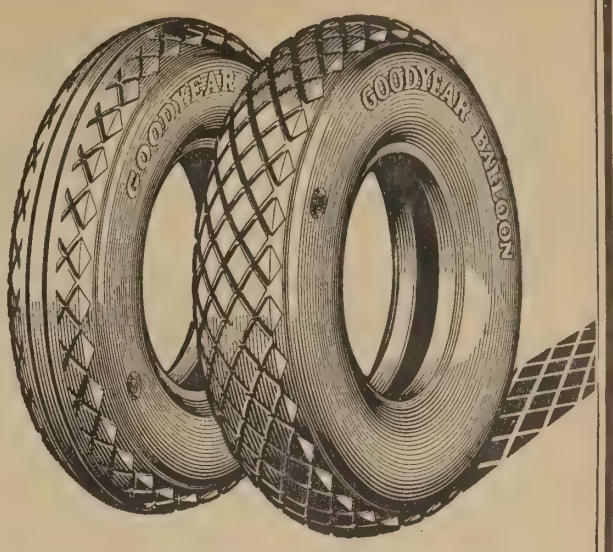
You may say this hasn't visibly followed in other lines. All I can add here is, that stampedes of this sort do not occur as readily where it requires the price of a railroad to get into the business. But every Tom, Dick, or Harry can muster the price of a cow, and two cows on a farm where only one stayed before (I was about to say kept) may not double the supply but it will produce enough glut on the market to take the fit out of profit. As a matter of fact such a stampede has occurred in big finance as they call it, as witness the financial desert of the railroads and the heated financial petting party going on in Tax Exempts Avenue.

Maybe you can think of the situation as a fellow standing between two arms of a well oiled sweep, or tread power. Let the sweep in its entirety represent production in any one line or all lines of commodities. Suppose you mill around half as fast. You will cut production or output all right but get right back where I described above. Or, standing between the arms several have proposed and tried doing other things. If the arm in front of you represents Price for Product, join hands and give it a push but you'll find the Cost of Production arm right behind you following steadily upwards or onwards. Give it a sudden shove ahead and you may get a clip back of the ear. As I see it, the real difficulty, though it is not always recognized, is that we are crowded for elbow room between the arms. And the logical as well as practical thing to do is push the arms farther apart—increase the "spread" between cost of producing and best price obtainable—or if that can't be done to get out.

An up and coming farm youngster analyzing his poultry account in vocational agriculture expressed the idea of "spread" very tersely when he said, "I don't care where the price of poultry products go as long as I can make 10 per cent above the actual cost of producing them." All this means having necessary farm accounts for knowing what the *actual* costs are. It's no use complaining they take too much time. Fact is, an increasing number of successful farmers are keeping them and those who don't are facing a new kind of competition. For those who prefer the direct counter offensive here is a hint. I think seriously that both Mr. Klein and Mr. Dill will agree that anything less than such a program would be like clipping a man's head to stop his hair from growing so fast!

Connecticut. R. L. HAHN.

Aunt Ada's Axioms: Those who are discontented with home should remember that the pleasantest place to live is in the hearts of others.



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is a new word in the tire industry and a mighty important one. It is the name of the sensational new cord fabric developed by Goodyear. Tests show that tires made with this elastic and enduring new material *delivered as much as 100% greater* carcass *service* than tires made with an equal number of plies of standard cord fabric. In other words, ply for ply, SUPERTWIST literally *doubled* the *carcass* life of the tire. SUPERTWIST is used only by Goodyear, and is built into Goodyear balloon tires of *both* kinds—to fit new wheels, or the wheels now on your car.

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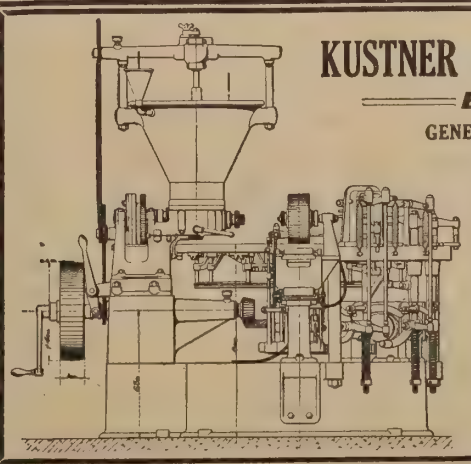
The U. S. Department of Agriculture recommends that milk be cooled quickly as milk cooled as fast as milked keeps sweet longer and gives a bigger cream line.

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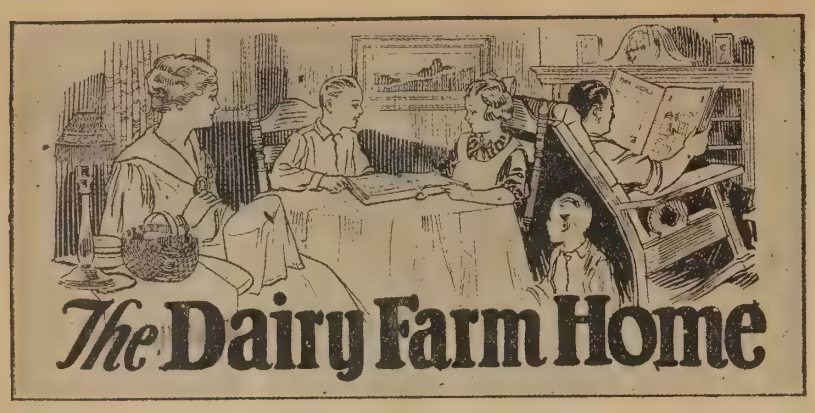
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A Window to the South

A Wisconsin woman has written a play, just a simple but beautiful one, called "A Window to the South". The farm mother in the play has a kitchen window that looks out on the barn lot and it is a very unlovely sight. She longs for a window to the south. There the view shows Nature alone and brings back loving thoughts of the time when as a bride she drove with her husband to the little home in the cut-over country.

Her husband is always too busy to cut the window for her and she is too gentle to demand it. But she pictures to herself how beautiful her work would become if only she could see the trees and the open sky. She dreams of it until her family discover one day that she believes the window is there and she talks about it in a happy, daft way.

How many farm women there are, kept at home by little children or other duties, wanting things and doing without them until, for one reason or other, it is too late.

We all want to practice the right amount of self-denial and we all heartily condemn the self-centered exacting woman who demads all and gives as little as possible. But there are many, many things that cost little, either in effort or money, and that would make us happier.

True happiness can never be built on injustice and so I feel that it is all right for us to go after anything that will make us happy in the right way. If we must stay at home, let us make our homes nice places to stay in. Only so can we enjoy them.

The most interesting place to start around the home is the yard if it is summer. If the men think they are too busy to help, the mother and children can do a great deal. My idea of a good beginning is a fence around the yard. That sort of sets off the work of the woman. Nothing is lovelier for this than white pickets if they are harmonious with the house, though a wire fence, covered with vines, is pretty, too.

Walks about the place do help such a lot in keeping the house clean. Some of the handsomest homes have walks of flag stones laid like the old-fashioned stepping stones. Brick walks are artistic and not expensive and then there are always the concrete, cinder, and gravel that may be used. It does look as if the men would have to lend a hand with the walks and fence but the mother and children can give moral aid.

If the yard is large be sure to leave a fence opening big enough so that the mowing machine can drive in to cut the grass. It does look as if this was going to involve the men again but then it is hard to get along without them and we might as well admit it.

Since we have admitted it, they are probably so flattered that they will help build a little grape arbor in the side or back yard. Many of the lovely old places had them but we hurry around so fast nowdays that we don't have time to use them any more and not many are built.

This little structure can be the simplest possible. Just four stout timbers set in a square and two extra ones to form a door. Then the whole thing covered, top and sides, with lath or something similar placed a foot or two apart, just anything to give support to the vines that are to grow over it.

Grape is the nicest of all but it takes a long time to grow. I have heard of an annual called the Japanese Kudzu that climbs almost as fast as the story-book bean stalk and forms a cover in two months.

Inside this little house there must be a bench on either side and a table, no matter how old, so that you will be tempted to carry your mending there. This is a soul-satisfying spot in which to shell peas or do other tedious work.

Sunlight that is not too strong and that does not come through glass is as good as medicine, the doctors say nowdays, and I believe that most anyone can find 15 minutes on a summer afternoon in which to strecth out on one of the benches and soak up sun. I don't mean that sunlight through glass is harmful but only that the glass takes out the valuable ultra-violet ray. A bird bath that the children can renew every day and a row of hardy flowers that don't take any care but, like Topsy, just grow, will rest your eye while you are working.

Don't be vaguely dissatisfied with your home. Figure out what it is that would make it nicer and you happier and then concentrate on ways of getting it. You will be surprised how soon you will have it.—LUCY THOMPSON.

Ice Cream Recipes

Home-made ice cream is always a treat. Besides, it's a way to use more milk and cream in the children's diet.

Here are some recipes suitable for one-quart freezers, suggested by Miss Bernice Dodge of the Home Economics Department of the University of Wisconsin:

Lemon Milk Sherbet—2 cups milk, ¾ cup sugar, juice of 1½ lemons. (1) Mix lemon juice and sugar. (2) Add this slowly to milk, stirring constantly. (3) Freeze packing with a mixture of 3 parts cracked ice to one part rock salt.

Philadelphia Ice Cream—½ cup cream, 2 cups milk, ½ cup sugar, 2 teaspoons vanilla. (1) Scald milk and cream together. (2) Add sugar and vanilla, after cooling. (3) Freeze, using 3 parts cracked ice to one part rock salt.

Chocolate Ice Cream—2½ tablespoons cocoa, ½ cup sugar, 2 tablespoons water, 1 cup cream, 1½ cups milk, speck of salt, ½ tablespoon vanilla. (1) Mix cocoa, sugar, and water, and cook till creamy, stirring constantly. (2) Scald milk and cream together. (3) Add cocoa mixture to hot milk and stir till smooth. (4) Cool, add vanilla and salt, and freeze, using three parts cracked ice to one part rock salt.

Hot Fudge Sauce for Ice Cream—Take equal parts of cocoa, sugar, and milk and cook till thick and creamy, stirring constantly. Pour hot over the ice cream.

Shorts

Add the white of an egg to cream that will not whip and note the success you will have with your cream.

⚜

Two teaspoonfuls of cream of tartar and one scant teaspoon of saleratus are equal to three teaspoons of baking powder.

⚜

Put ham and corned beef on to boil in cold water.

⚜

Tomatoes are good when stuffed with pork sausage and baked.

⚜

To make croutons take slices of stale bread and cut into one-half inch dice. Put into a shallow pan and bake in a moderate oven until golden brown.

⚜

Every trace of string can be removed from string beans if, after thorough washing, you plunge them into boiling water for five minutes, then drain. Then the strings are easily removed.

⚜

A few pieces of dried rind of orange kept in your tea canister will give your tea a delicious fragrance and flavor.

⚜

If you are cutting down on the number of eggs in a cake, add half a teaspoon of baking powder for each egg-white omitted.

⚜

When making sherbets or ices, try adding the stiffly beaten white of an egg to each quart of mixture. It will give you a lovely, smooth ice.

⚜

The jellied salad acts as a welcome substitute for dessert at times. Apples, nuts, and celery, chopped raw cabbage or raw carrots can be molded into lemon jelly which is delicious served on crisp lettuce with mayonnaise dressing.

⚜

Soft butter or lard should never be used in making pie crust. Whatever shortening is used should be hard and very cold.

⚜

Currant jelly is very good when served with any kind of meat. If you are serving in large quantities a light and a dark jelly cut into squares and served on the same plate makes an attractive way to serve jelly.

⚜

Fruits and desserts sweetened with honey make an agreeable change.

⚜

The first vegetables a child should have are the strained pulp of spinach, asparagus, peas, and young carrots.

⚜

Add a cup of grated cheese to the white sauce for cauliflower and see if you don't find it a very pleasant addition.

⚜

Over alternate layers of chopped spinach or cabbage and cooked noodles or macaroni, sprinkle grated cheese and seasonings. Add a cupful of milk and bake in a moderate oven for about twenty minutes.—Sophia K. Ormond.

One of the weakest points in home life in the present day is the lack of understanding of human relationships.—FLORA ROSE.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Miscellaneous Fashions



No. 1957—Becoming Design. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 2⅝ yards 36-inch material with 1⅝ yards 24-inch contrasting.

No. 2084—Easily Made Style. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 2¼ yards 36-inch material with 2⅛ yards 36-inch contrasting.

No. 1685—Becoming Porch Dress. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 40 requires 4 yards 36-inch material with 1 yard 36-inch contrasting.

No. 2103—Bloomer Dress for Pudgy Youngsters. Cut in sizes 2, 4, 6, and 8 years. Size 4 requires 2 yards 40-inch material.

No. 2148—Cool Frock for Hot Days. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3½ yards 40-inch material with 1⅞ yards of ribbon.

No. 2139—One-Piece, Slip-On Dresse. The diagram will convince you of the simple construction of this dress. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅜ yards of 40-inch material.

Fashion Magazine

From the front cover of our Spring and Summer Fashion Magazine right on through the book, you will see all of the styles which will be popular during the coming season. Styles for morning and afternoon wear as well as those needed for the more formal occasions. And cute styles for the kiddies. There are dressmaking lessons for the beginner, and charming styles which can be made in a couple of hours even by one who is a novice with the needle. Also photos of the most popular Broadway, New York, actresses. So settle your dress problems by sending 10c today for our new Fashion Magazine. You'll save dollars by doing so. Address Fashion Department, Hoard's Dairyman, Fort Atkinson.

Where children are, there is the golden age.—NOVALIS.

Ever Failing or Never Failing Pasture

(Continued from page 99)

the barn feeding for the summer six months could be avoided. The dairyman would gain two or three weeks' time in the spring by being able to turn out earlier; then in mid-summer the sweet clover would withstand the drought and supply ample feed during the hot weather, and thus save a month or two of barn feeding that would be necessary if bluegrass were relied upon; and in the fall the sweet clover would allow two or three weeks later pasturing. By growing sweet clover in the place of bluegrass, this pasture feeding period is extended from two months to six months—or four months longer—and no supplementary feeding of roughage in the barn is needed, thus saving four months of barn feeding labor through the busy season of crop work, and the labor of growing, harvesting, and storing this summer feed is also saved.

Saves One Hired Hand

Thus, in many cases the use of sweet clover pasture would save one hand's wages and his board, room, and washing. It certainly would enable the dairyman to keep a larger herd or do more work in growing extra crops for sale with the same labor force. It would enable many a dairyman, now hiring some help, to conduct a one-man farm or reduce his help from two hired men to one. There is not only the money value of the labor saved, but the greater independence in regard to labor and freedom from anxiety about it, for sometimes it is impossible to get good labor, regardless of price, and the dairyman is put under great stress and handicap in working alone for weeks.

This is the greatest possible means of saving labor on the dairy farm, where labor is a most costly and valuable commodity, and the most difficult to satisfactorily supply. Sweet clover pasture is the best hand on the farm.

More Economical Than Hogging Down Corn

Everyone knows that hogging down corn is a great saving of labor, but pasturing cows on sweet clover is a far greater labor saving method. The hogs save only the husking and shelling of the corn, comparatively cheap operations; while cows on sweet clover pasture save the work of making hay and silage, the threshing, shelling, and grinding of grain, which are expensive and laborious operations.

What Dairymen Say About It

The following quotations will show how dairymen find sweet clover pasture furnishes plenty of summer feed and thus saves the labor that is involved in providing supplementary feed when bluegrass fails.

"Sweet clover is a whole lot better than bluegrass because it gives not only more feed per acre but also makes the pasture extend over a much longer season."—Theo. Warnecke, Southern Illinois.

"Bluegrass can not be compared with sweet clover. I intend to plow up my bluegrass pasture and use sweet clover entirely because it starts earlier in the spring and produces more feed in the summer when our bluegrass is dried up."—Edw. S. Stumpf, Southern Illinois.

"When all the other pastures are burned up on account of the lack of rain and intense heat, I always have plenty of feed with sweet clover pasture, thus saving supplementary feeding."—J. J. Kennedy, Northern Illinois.

"The reason we like sweet clover for pasture much better than bluegrass is because it gives plenty of feed during the dry months, and also holds the ~ - of milk steadier during the season."—Thomas Thorson, Northern Illinois.

"Bluegrass is good only on swampy land which is wet all the time. On ordinary land, bluegrass will dry up during hot weather when it gets dry because it feeds only in a few inches of the top soil, while sweet clover roots go down into the sub-soil and get moisture as long as there is any there. We can raise sweet clover on the poorest land if it has had sufficient lime, where bluegrass dries up. A good sweet clover pasture aids greatly in growing a good corn crop the following year. We get double the yield of both wheat and corn following sweet clover pasture, that we did before we raised sweet clover."—Ed. Rehling, Southern Illinois.

A Question to Answer

Why should any man want to put in all this extra labor raising supplementary feed, particularly when it comes right at the peak of the year's work in the heavy harvest season? This is entirely unnecessary with sweet clover pasture. Why should any man want to enslave himself and his family or try to hire extra help when it is so scarce and high-priced, often unsatisfactory and annoying? That is a fair question, and the only possible answer seems to be that he does not understand what this wonderful crop will do toward lightening his year's labor load, or else he does not see how easily he can grow this legume pasture upon his farm.

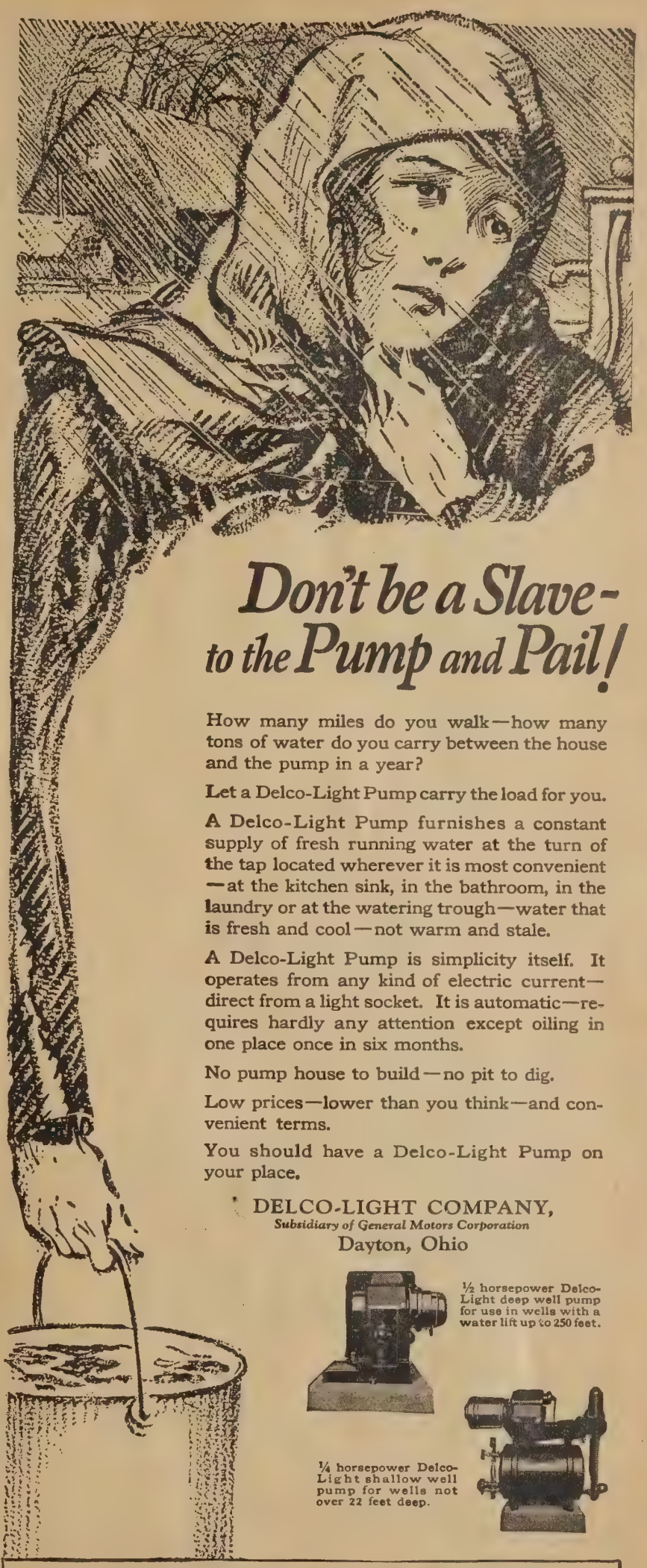
One of the chief difficulties in dairy farming is the large amount of labor necessarily involved in the cropping season. This sweet clover pasture saving of labor is certainly a large step in the direction of reducing the peak of the labor load, because it removes the bluegrass burden for four months and makes a real pasture period equal in length to the winter feeding period.

Milking Machines and Caked Udder

HOARD'S DAIRYMAN:—In your June 6th issue I read an article on milking machine trouble with caked udders. I have had the same trouble with my machine but have discovered the reason of the caking of udders with milking machines. T. R. N. describes the trouble O. K. It is not garget which I thought at first it was, but the trouble is not enough power to furnish the correct suction or otherwise too much suction. Some cows have a very tender udder and should be watched at all times and see that all four teats are milking out alike.

Now for proof: I have one cow that will cake very easily if the machine is not working perfectly. Yesterday morning her udder was caked. I knew there was something wrong so I got busy and watched it close and learned that one of the milkers was leaking, not much but enough to suck air. This can be noticed by bending the two milkers back and holding them, then put your thumbs in the other two and turn on the machine. If the rubber in the milker leaks it will suck air and you can feel it. If the trouble is too much suction or not enough you can discover it if the operator is familiar with his machine.

Illinois. READER.



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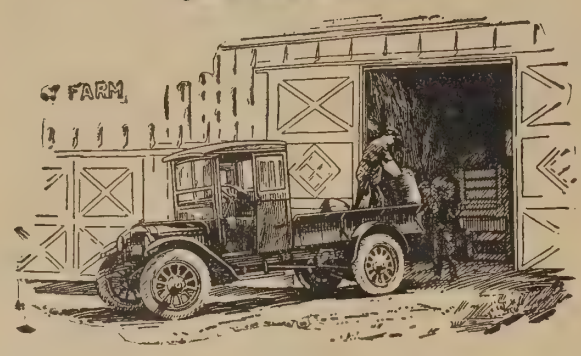
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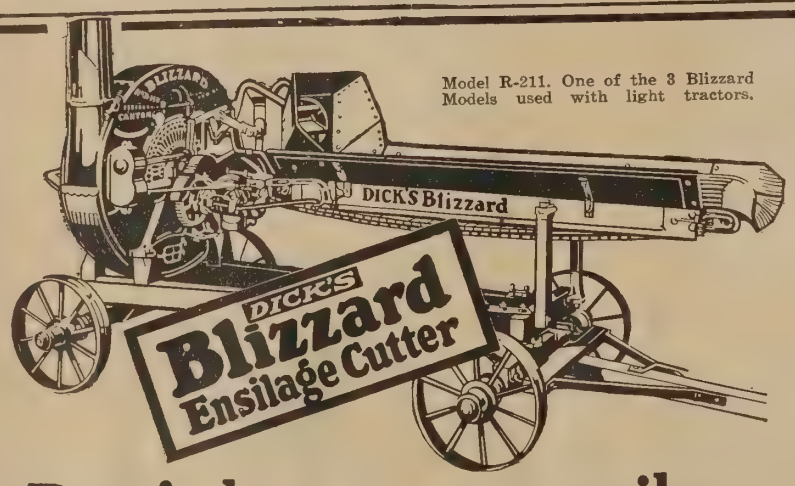
Because of the perishable nature of dairy products and because of the day-in, day-out reliability of GMC trucks they are a logical selection for dairy farm needs. This extreme dependability is obtainable at a substantial saving in price. The GMC price is lower than that of other high grade trucks. Participation in the vast purchasing resources of General Motors Corporation cuts GMC production costs to the very bone.

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DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets continued firm with active demand during week ending August 2nd. Wisconsin production heavy with prospects for heavy make throughout August. Pastures in good shape following abundant rains.

The average wholesale prices on American cheese, style Twins, for the week ending Aug. 2, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Aug. 2 1924	July 26 1924	Aug. 2 1923
	Cts.	Cts.	Cts.
New York	20.9	40.7	24.3
Chicago	18.8	18.1	21.7
Boston	21.2	21.2	25.2
San Francisco	18.4	19.0	24.7
Wisconsin Boards	18.3	17.9	21.1

The receipts of cheese at these markets were 5,079,940 lbs. for the week as compared with 5,360,738 lbs. last week and 5,465,556 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were unsettled and irregular during the week ending August 2. Tone at the close easy to weak. Sentiment mixed but anticipation of lower prices kept some buyers off the market. Production holding up well. Import situation unimportant.

The average wholesale prices on 92-score butter for the week ending Aug. 2, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Aug. 2 1924	July 26 1924	Aug. 2 1923
	Cts.	Cts.	Cts.
New York	37.9	38.7	42.5
Chicago	36.1	36.7	41.4
Philadelphia	38.8	39.6	43.0
Boston	38.2	39.1	42.4
San Francisco	38.3	38.9	43.1

The receipts of butter at these markets were 19,356,666 lbs. for the week as compared with 20,469,097 lbs. for last week and 13,659,436 lbs. a year ago.

Cheese Prices for July

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese (style Twins) for the three large markets in July:

	Average price July 1924	July 1923
	cents	cents
Wisconsin Boards	17.8	21.3
Chicago	18.4	21.8
New York		24.9

Longhorns averaged 18.3 cents in July on the Wisconsin Boards as compared with 18.8 cents in June and 22.5 cents in July a year ago. The receipts of cheese at Chicago, New York, Boston, and Philadelphia totaled 121,650,938 lbs. for the first seven months of the year as compared with 122,628,196 lbs. for the same period last year. Storage holdings at these markets on August 1 were 21,950,356 lbs. as compared with 21,179,573 lbs. a year ago.

Milwaukee Milk Prices

The following milk prices are determined on for the month of July:

For the portion sold as fluid, $2.85 per cwt. shall be paid for milk testing 3.5 per cent fat.

For the portion manufactured, $1.45 per cwt. shall be paid for 3.5 per cent fat. Four cents added or subtracted for each one-tenth of one per cent variation up or down from 3.5 fat test.

Sixty per cent of the total receipts was sold as fluid.—Milwaukee Co-operative Milk Producers.

Butter Prices for July

The following table is compiled from daily quotations by the U. S. Department of Agriculture and covers the average wholesale prices during July on 92-score butter (extras) at four of the principal markets, together with the receipts and storage holdings at these markets:

	Average price July 1924	July 1923	Receipts July 1924	July 1923
	cents	cents	tubs	tubs
Chicago	37.9	38.3	439,599	333,408
New York	38.3	39.5	444,827	376,243
Boston	40.2	39.7	202,230	175,822
Philadelphia	40.7	40.2	131,688	85,954
Total receipts for July			1,218,344	971,427
Total receipts since Jan. 1			5,861,017	5,466,736
Storage holdings Aug. 1			1,192,608	853,303

Ninety-score butter averaged 36.8 cents for July in Chicago, with centralized butter at this market selling for 37.8 cents. Jobbers' prices on extras sold to retailers averaged 40.4 cents in Chicago and 43.3 cents in New York.

CHICAGO, Aug. 7—With a good demand reported on all grades, the butter market today continued firm, with trading active. Receipts were heavier today, but supplies on dealers' floors remained light, receivers getting premiums on the medium and lower scores. The centralized car market continued firm, with offerings of 89 and 90 scores light and demand good.

Fresh butter—92-score, 36½c; 91-score, 35½c; 90-score, 34¾c; 89-score, 34¼c; 88-score, 33½c; 87-score, 33c; 86-score, 32c. Centralized carlots—90-score, 36c; 89-score, 34½c; 88-score, 33½c.

MILWAUKEE, Aug. 11—Butter—Creamery, extra, tubs, 36c; standards, 35½c; extra firsts, tubs, 34@35c; firsts, 32@33c; seconds, 30@31c.

Eggs—Fresh gathered firsts (new cases), including cases candled, 29@29½c; ordinary firsts (standard cases), 28@28½c; miscellaneous lots, shippers' cases returned, candled, 26@27c; seconds, dirties, 21@21½c; checks, 21@21½c.

Cheese—American full cream, Twins, 18@18½c; Young Americas, 19@19½c; Longhorns, 19@19½c; Daisies, single, 18½@19c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 16@16½c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

FOND DU LAC, Wis., Aug. 9—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 19½c; single Daisies, 19½c; double Daisies, 19c; Longhorns, 19½c; square prints, 20c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Aug. 9: Single Daisies, 18¼@18⅜c.

NEW YORK, Aug. 11—Butter—Firm; receipts, 10,285 tubs; fresh supply, 51,002 tubs; creamery extras, 38½c; specials, 39½.

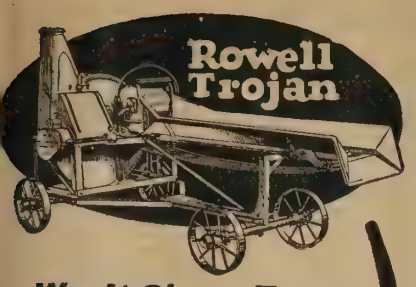
Eggs—Quiet; receipts, 6,483 cases; fresh supply, 62,988 cases; white, fancy, 51@52c; fresh firsts, 29½@37c; western whites, 32@50c.

Cheese—Quiet; state milk, common to specials, 15@23c; skims, common to specials, 11@12c; lower grades, 4@10c.

Carload Prices of Hay, Straw, and Feed, Aug. 2, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	31.50	30.00	....	24.00	26.50	25.00	27.00	22.50	18.00	27.00	18.00	20.00	....	15.00	
No. 1 Clover, mixed	20.50	....	....	18.00	22.50	....	....	....	15.00	....	16.00	....	....	14.50	....
No. 1 Clover	....	....	....	17.00	....	....	....	....	18.00	14.50	....	16.00	....	15.50	....
No. 1 Alfalfa	....	30.50	....	....		29.00	....	22.50	24.00	22.00	17.50	....	16.50	20.00	26.00
Standard Alfalfa	....	26.50	....	....		24.00	....	21.00	....	20.00	16.00	....	14.00	17.75	25.00
No. 2 Alfalfa	....	25.50	....	....	....	....	....	18.50	22.00	17.00	14.00	17.00	12.00	15.00	24.00
Oat Straw	13.00	14.00	....	15.00	13.50	....	....	....	10.00	12.00	8.00	....	8.50	....	....
Feed—Bagged															
Wheat Bran	....	....													
Spring	31.50	....	30.50	29.00	30.75	....	....	....	29.00	26.00	23.00	....		22.00	38.00
Soft Winter	31.75	....	33.00	31.00	32.25	....	....	26.75	29.00	....	....	25.00		22.00	....
Hard Winter	....	....	32.00	30.00	....	....	....	....	29.00	26.25		25.00	23.00	22.00	....
Wheat Middlings	....	....													
Spring (Standard)	33.75	....	33.00	31.50	32.75	....	....	....	32.00	28.25	25.50	....	....	28.00	44.00
Soft Winter	....	....	37.00	36.00	32.25	....	....	....	34.00	....	....	30.75	29.00	28.00	....
Hard Winter	....	....		36.00	....	....	....	....	34.00	....	....	....	....	....	....
Wheat Millrun	....	....		....	....	....	....	....	....	....	24.50	....	....	26.00	37.00
Rye Middlings	....	....	29.00	30.00	....	....	....	....	....	27.00	23.00	....	....	....	....
High Protein Meals	....	....	....	....	....	....	....	....	48.00	47.00	43.50	46.50	48.19	....	43.00
Linseed	49.75	....	50.20	48.70	....	....	....	....	48.50	49.00	49.50	46.50	....	....	....
Cottonseed (41%)	52.50	....	52.00	50.20	....	....	....	44.50	48.50	49.00	49.50	46.50	....	....	....
Cottonseed (36%)	48.00	....	46.50	46.20	....	....	....	40.50	44.50	46.75	46.00	44.00	....	....	....
Tankage (60%)	....	....	....	....	....	....	....	....	....	60.00	55.00	60.00	55.00	55.00	....
No. 1 Alfalfa Meal	....	....	....	....	30.50	....	....	27.25	28.00	27.00	....	25.00	25.50	22.00	33.00
Gluten feed	44.55	....	43.50	41.30	43.75	....	....	....	40.30	37.40	40.50	....	....	....	....
Hominy feed (white)	46.50	....	45.75	....	43.75	....	....	....	42.50	41.50		42.00	39.00	....	....
Hominy feed (y'llow)	45.25	....	45.00	....	43.25	....	....	....	42.50	40.00	40.00	....	39.00	....	48.00
Ground barley	....	....	....	....	....	....	....	....	41.00	41.00	37.00	....	....	....	38.00
Dried Beet pulp	....	....	....	....	39.00	....	....	....	....	43.00	....	....	....	....	....



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High or low; broad or slender—the height or shape of a silo makes no difference to the Rowell Trojan Silo Filler. Its sure-cutting, fly-wheel-mounted knives slash cleanly through the toughest stalks. The full-blast fan and lifting paddles shoot the ensilage up into the tallest silo. No "back dropping" or clogging.

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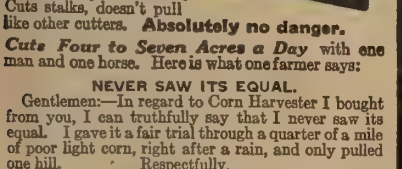
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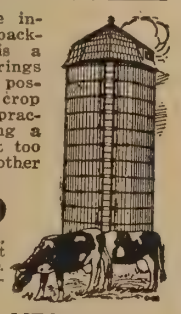
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Anthrax in the South

HOARD'S DAIRYMAN:—With more than 50 counties affected in Mississippi, Arkansas, and Tennessee—with more than 2,000 head of stock and eight people dead from the disease in Mississippi alone—federal, state, and county officials are making desperate efforts to hold the present outbreak of anthrax in check and prevent its spread over the entire South.

The outbreak—which started in the delta section of Mississippi—is considered by southern veterinarians and live stock men to be one of the worst ever occurring in the South. In the course of a few weeks it has spread into three states and unless heroic measures are taken, it promises to spread over a still wider area before checked by cold weather.

Work in combatting the disease is being hampered by a lack of funds and a shortage of trained veterinarians. Every available veterinarian in Mississippi, Arkansas, and Tennessee is in the field and veterinarians from neighboring states are aiding them as much as they can.

Appeals have been made by officials of the three states affected to their respective legislatures for emergency funds with which to carry on the fight, and an appeal will be made to Secretary Wallace for more federal aid in the epidemic under control.

The following recommendations have been sent out to all farmers engaged in the fight and it is claimed that if they are followed, the disease can be held in check for the time being:

1. Report all cases of anthrax promptly.
2. Have laboratory tests made to determine the infection.
3. Destroy by burning all dead stock believed or known to have been infected.
4. Kill all stray dogs, vultures, and suspected carriers of the disease and spray for horse and cattle flies which can transmit the disease from herd to herd.
5. Segregate herds and isolate all dairy cattle.
6. Vaccinate all stock in the spring months to prevent a recurrence of the disease next year.

It is pretty generally considered that the anthrax has gotten too wide a start this year to be stopped and veterinarians are bending every effort just to hold it in check and prevent its spread to other sections.

With appropriations, an adequate field force in the three states, and a campaign of vaccination throughout the sections infected next spring, however, veterinarians say that it can be effectively eradicated.

Meanwhile the loss to farmers of Mississippi and Arkansas in hogs, beef, and dairy cattle and mules, while not officially estimated, is said to mount into the millions and live stock in the section has suffered a serious setback.

Georgia. J. H. REED.

Waukesha—Milwaukee Co. Holstein Picnic

The Waukesha and Milwaukee County Holstein Breeders' Ass'n held a joint picnic meeting at the Milwaukee County Agricultural School, Wauwautosa, Wis., Aug. 2. It was an ideal place for such a meeting, the weather was right, and the program was good, but the attendance was not up to standard perhaps because the weather was good and field work pressing.

Just before lunch, County Agent E. C. Thompson of Milwaukee County gave a short talk on calf club work directing it particularly to parents. He urged them to help their boys and girls get started right with a good calf, not a misfit, and thereafter to help only with advice where needed. Let the boy or girl do the work. They will enjoy it and will benefit much more than as if father or a herdsman were to do most of it.

The afternoon program included talks by C. M. Long of the Holstein-Friesian Ass'n of America, D. D. Aitken of Michigan., A. J. Glover of Hoard's Dairyman, J. P. Riordan, Wisconsin, and Dist. Attorney Wengert of Milwaukee Co.; a judging demonstration by Reid Murray of the Wisconsin Live Stock Breeders' Ass'n, a milking contest, judging contest, and a ball game.

Mr. Long spoke on the future of the dairy industry and pointed out that the present small percentage of good sires, the large number of poor cows to be displaced, and the number of dairy cattle condemned for tuberculosis make the future business of the efficient dairyman and breeder secure.

D. D. Aitken wasted no time in commiserating with dairy farmers because of present conditions. He told them that the more efficient dairymen of today were making money and that there was still great room for improvements even on our better dairy farms.

A Correction

HOARD'S DAIRYMAN:—In my report of page 6, July 18th issue, there were two mistakes. One of these is of slight importance and stated that the committee passed a resolution for $2.33 for fluid milk. I find that after the League members decided to leave they apparently thought they had pressed matters too far and changed to simply a "higher price". It is all the same so far as I can see. Of more moment is the fact that the Eastern States representatives did not vote for the higher price. They stood manfully for the right as they saw it and they knew that a higher price at that time was not to be had. I am glad especially to correct this error.

New York. H. H. LYON.

New Pennsylvania Champions

Pennsylvania has five new champion butter producing Holstein cows, according to an announcement made by the Advanced Registry Department of The Holstein-Friesian Association of America.

Bell Farm Bakker is now the state's leading cow for ten months' production as a junior three-year-old with a record of 20,292.8 pounds milk containing 715.61 pounds butterfat, equivalent to 894.5 pounds butter. Her butter record is the third highest in the United States for cows in this class completing strictly official records.

Another cow in this herd, Bell Farm Generous, is the new state leader among senior three-year-olds for ten months' production. Her record is 17,796.7 pounds milk and 654.9 pounds butterfat—equal to 818.6 pounds butter.

For one year's production as a senior three-year-old Loyalsock Korndyke Witra, of the Flock Brewing Company herd, holds the state's highest record with 23,258.3 pounds milk and 859.44 lbs. fat (1,074.3 pounds butter).

The state's new high cow for ten months' production as a full age cow is Charlotte Lyons Korndyke, owned by A. S. Deysher. Her record is 21,323.4 pounds milk and 826.24 lbs. fat, (1,032.8 pounds butter).—Holstein-Friesian Ass'n of America.

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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Showing Pigs to Win

(Veva Divan, who wrote this article for the Hoard's Dairyman Juniors, has been for the past two years State Pig Club Champion for Wisconsin. She has a remarkable show ring record and was the owner of the only thousand dollar litter of pigs in Wisconsin last year. She is nineteen years old and a leader of 4—H clubs in Green County, Wisconsin.)

It has been my opportunity to watch exhibitors show their pigs at a great many fairs since I was five years old. I have learned several things which have been a great help to me in showing pigs for myself.

I have seen good pigs placed low in the showing for several different reasons: (1) poorly fitted; (2) crooked feet which could have been made straight by trimming when young; (3) hide and hair in poor condition which could have been remedied by frequent washing with a dip solution and oiling; (4) lack of training. When a pig is not properly trained it is impossible to show him to good advantage. Here are a few rules which have worked well for me.

Feeding. Feed four times a day, not too much at a feed. Let the pigs have plenty of skimmilk in their ration. In the skimmilk mix four parts ground oats, four parts standard middlings, two parts ground corn with a small amount of salt and oil meal added. Mix together and stir in the milk, making a thin slop. About six quarts of this feed daily should be enough for a one-hundred-pound pig. Then the pig should also have the run of alfalfa, red clover, or bluegrass pasture. A few fresh weeds from the garden add greatly to their ration.

Care of the feet and skin. See that the feet are kept straight by



Veva Divan and King's Oneida were great pals. This pig was grand champion at the 1922 Wisconsin State Fair.

trimming them lightly. Wash the pigs often with a solution of warm water and dip to keep them free from lice. This also keeps their hide and hair in a good, soft condition.

Training the pig. The pig should be driven with a light cane or stick. With this you can soon teach him to go where you want him to. In doing this do not be rough, but be firm. Let him understand when you want him to go one way or the other, even though it takes a few good boxes on the side of his head to let him know who is boss. Teach him to pose properly. Take plenty of time in training. You can't teach him everything all at once. Pigs learn fast if you start training them while young and train them a little every evening for at least six weeks before your first showing.

When you drive them into the show ring you can usually show them to so great an advantage that you are bound to be rewarded for your labor.

Do not forget to watch and show your pig all of the time. Never mind the other fellow or how he is showing. Keep your eye on your own pig—and show to win!



"See that the feet are kept straight by trimming them lightly," advises Miss Veva.

The Four-leaf Clover

The dark green, four-leaf clover is the sign of boys' and girls' agricultural club work. This emblem is made use of in a rather striking way by the Juniors enrolled in project work in the state of New York. If you should drive through the country and notice a large, dark green four-leaf clover in the window of a farm house or tacked up on the fence or some other conspicuous place, you would know at once that there is a wide-awake boy or girl on that farm carrying on some home enterprise. This is a splendid way of letting the world know about club work.

Every club member knows that each of the leaves in the four-leaf clover stands for an H in club work. The 4-H clover means head, hands, heart, and health. A further meaning is given to these four H's in the club pledge which states: "I pledge my head to reason, my heart to loyalty, my hands to service, my health to efficiency for the good of my country, my community, and my home."

Close to fifteen thousand boys and girls in New York State last year recognized this 4-H clover as their own, and approximately seven hundred and fifty thousand rural boys and girls, some in every state of the forty-eight, know the emblem and are working for the ideals for which it stands.

The four-leaf clover is universally known as the sign of good luck, but in this case it stands for more. Instead of spelling luck with four letters, the word is spelled with five, and in this manner P-L-U-C-K. By constant, diligent, and hard W-O-R-K it is possible to work the letter "p" away, and we then have left L-U-C-K.

Phil the Philosopher

"We never say can't in club work."

This remark was made by a Wisconsin canning club girl when she met and overcame an obstacle in a chicken canning demonstration. She was putting the parts of chicken into a can. One part was too large. She trimmed and squeezed until it slipped in, and then made the remark quoted above.

No wonder this girl and her sister were state canning club champions in Wisconsin for 1923. If you, too, would be a winner, remember, "We never say can't."

Michigan Club Week

Michigan Club Champions' Week was held at Michigan Agricultural College the week of July 7 to 11, inclusive. One hundred and sixty-five boys and girls and 29 leaders were registered. Only boys and girls who have won county or state championships in their respective projects during the last club year were eligible to attend.

Both a subject matter and a recreational program were carried out. The director of athletics for the college had charge of the recreational program. Swimming in the college pool, ball games, and track events were in order after three o'clock each afternoon. The annual ball game between the club champions and club leaders was won by champions with a score of 16 to 7.

The State Board of Agriculture gave a banquet to club champions. Grace Aldrich of Lenawee County acted as toast mistress. All of the talks at the banquet except a few remarks by Mr. Turner were made by club members.

As a climax to the week a sightseeing trip was made to Lansing and through the State Capitol building.

Michigan. NEVELS PEARSON.

All Hail the Champions!

"Tonight we are rejoicing over the results of the contest. The gold cup is coming back to Whiteside. Sure having a splendid time."

In these words did Donald Williams inform us that the United States had scored another victory, that of winning the international dairy cattle judging contest held July 11 in England. Congratulations, fellows, we're proud as a peacock of you.

Donald Williams, Elwyn Folkers, and Harold Gaulrapp, the boys from Illinois who turned this trick, are all readers of Hoard's Dairyman. Donald is a Hoard's Dairyman Junior and one of whom we are especially proud for among other things he secured 40 subscriptions to Hoard's Dairyman this spring and won a radio set.

The boys were coached by L. O. Wise, farm adviser of Whiteside County, Illinois, and Professor C. S. Rhode, dairy specialist at the University of Illinois. Here is a little something about these boys which may interest you:

Elwyn Folkers is 17 years old, lives eight miles from Sterling where he has attended high school for the past four years, three of which he has been studying agriculture. A year ago the home herd was practically wiped out by tuberculosis. Elwyn and his sister decided that they wanted to have Brown Swiss so each purchased two heifers from the Voegeli herd in southern Wisconsin. Among other accomplishments Elwyn was the champion sow and litter winner in Whiteside County.

Harold Gaulrapp, 20 years old, lives seven miles south of Rock Falls on a 160-acre farm and now has a young herd of four Brown Swiss heifers and one bull. With these animals he captured the following prizes at the county fair last fall: first and fifth prize heifers in club class—first prize young herd in the open class, also a first prize and grand champion junior bull. Harold had the first pure-bred dairy animals on his father's farm. He purchased four heifers from the Voegeli herd also.

Donald Williams, nineteen years old, graduated from Sterling High School a year ago, has been working at home this year and plans to go to college next fall. Donald lives on a 160-acre dairy farm maintaining a herd of about 35 Holstein milk cows. To go to high school meant an eight-mile drive each way every day. Donald entered two Holstein calves in club work. His 12-year-old brother, Russell, also had two calves in club work.



ILLINOIS JUNIORS WIN INTERNATIONAL HONORS

Judging in England against junior teams from other countries, Donald Williams, Elwyn Folkers, and Harold Gaulrapp (left to right) coached by L. O. Wise and C. S. Rhode, won the championship and brought back a gold trophy cup to Whiteside County and the good old U. S. A.

Another Birthday

The Hoard's Dairyman Juniors' Club is nine years old this month. They have all been years of happiness and continued growth. Each year our Juniors have been winners. We are looking forward to the coming year as one of greater achievement; as a year in which Hoard's Dairyman Juniors will meet with greater success; as a year when our club will double its membership. We want your help.

While we are on the subject of birthdays, we would like to call your attention to the fact that we have within our big organization a smaller unit known as the Birthday Club. When is your birthday? Perhaps some other Junior celebrates the same birthday that you do. Please write and tell us the date of your birthday.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

By referring to last week's issu

(Continued on next page)

How to Become a Junior

Any boy or girl under twenty years of ag may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to joi

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Junior Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it no

of Hoard's Dairyman (August 8th) you will get a further discussion on the questions asked below.

How much better is sweet clover pasture than bluegrass? From the experiences of 81 dairy farmers we learn that sweet clover pasture compared to bluegrass saves the dairyman two acres of land for every cow he keeps. This is the same as presenting him with a deed to twice as many acres of land as he has cows. (See article by W. J. Fraser.)

Tell about Mr. Meyers' experience with sweet clover compared to bluegrass pasture. Last year Mr. Meyers pastured his dairy herd of about 40 cows and 10 heifers on 100 acres of bluegrass. This year he has pastured the same herd on 25 acres of sweet clover and reports that his cows produced better during May and June this year on sweet clover alone than they did last year on bluegrass and silage. This is an actual example where 25 acres of sweet clover replaced 100 acres of bluegrass, thereby saving 75 acres of fine tillable land.

Name the essentials of success in raising calves as given in the experiences of F. A. Powell. (1) Proper feeding on a good balanced ration and all the calves desire. (2) Cleanliness—stalls, troughs, calves, feeding pails. (3) Regularity of both feeding and care. (4) Kindness. (5) Alertness by watching for signs of the calf's condition. (See article entitled "Starting a Dairy Under Difficulties".)

When was cow testing association work started in the United States? The first cow testing association began work in January, 1906. Since that time the number has increased year by year until today there are between seven and eight hundred. F. C. McDowell of the United States Department of Agriculture in his article, "More Than a Coincidence", reports that the ten highest states in milk production have fourteen times as many cows on test as the ten states showing lowest production.

What should be considered in building a milk house? A convenient dairy house helps to take the drudgery out of dairying. It need not be expensive but should be conveniently arranged, well lighted, and sanitary. Ample provision should be made for an abundance of pure water, both hot and cold. An inexpensive and efficient outfit for heating water and applying steam for sterilizing milk utensils together with plans for convenient dairy houses are given in C. A. Hutton's article, "Hot Water and Steam at Small Expense".

Junior Letters

Fifty Miles From Railroad

Hoard's Dairyman Juniors:—I have received the necklace, pin, and creed and think them very nice. I intend to put the creed in my room. I sometimes wear the button on my middy and the necklace around my neck when I go horse-back riding as I try often do.

We have 13 dairy cows and 13 heifer calves. My cousin and Dad own their cattle together. I have one little heifer calf and she is doing fine. It is just about three months old.

I am 15 years old and have lived on this farm since I was a baby.

We are fifty miles from a railroad and we get our mail on Mondays, Wednesdays, and Fridays. When we first came here there was no post office on this side of Rock Springs; that is about fifty miles from here and the people out here had to bring it out from town, whenever they were in town. We have no high school here either.

We have just bought a Dodge truck to haul our hay to market. I may learn to drive it; I can drive the Ford. We have had it quite a while.

We also have a tractor. We use it a great deal with our farm work.

We belong to a dairy association that owns two trucks, hires a driver and sends milk to Rock Springs to sell it.

I was very pleased to get that nice letter from you and would be glad if some of the juniors would write to me and tell me all about themselves. I will try and answer every letter I get.

My mother and I together have 17 baby chicks, but we are not having very good luck with them; it is so cold. We also have a few turkeys and I have asked a neighbor woman for two settings of geese eggs.

I wanted to get some rabbits for pets, but dad advised me not to as they are such a nuisance around a place, so I guess I won't get them.

We have a number of heifer calves around here without names. Couldn't you suggest some? Our cows' names are Daisy, Jewel, Princess, Queen, Bell, and I guess that's about all the real names.

I am, as ever, a friend of the Junior Club.
Wyoming. Edna Keeler.

Movies at Club Meeting

Hoard's Dairyman Juniors:—My father has taken Hoard's Dairyman for several years now. We enjoy reading it.

Our club work is coming along pretty well. There are only eight members in our club. We expect a few more to join within the next two months. At one of our meetings this spring the Guernsey Calf Club of Skippack, Pa., was present. The Quaker Oats Co. of Philadelphia showed films of the four leading breeds of dairy cattle at this meeting.

We started our club work last August. Most of the members bought calves from distant places. I got my calf from my father. He sold it to me for $75. I got this money by working on the farm. I made a little money on my rabbits, too. My smaller brother helped me start the fire at our school on Sunday so that it would be warm when the children came to school on Monday.

I feed the grain to the cows, horses, and calves. We give some of our calves skimmilk. We have 15 calves and 15 cows. Half are grades and the other half of them are pure-breds. My brother helps a good deal with this work. My second oldest brother retails the milk. We sell about 300 quarts daily. He uses a truck to retail the milk. We sell butter and chocolate milk, too.

Hoping the other juniors wlil have good luck I will close. I hope some of the juniors will write to me. My address is Red Hill, Pa. Clifford Wood.

Building Bird Bungalows

Hoard's Dairyman Juniors:—I live on an 80-acre farm. We had 12 Holstein cows last fall but we had a sale and sold them. Now we have 13 Guernsey cows and 2 Jerseys. I like the Jerseys best.

We have two big horses. They are all black, and a dog a year old. His name is Rover. I am 11 years old. I go to Shortville school. It is a brick school house. There is a store and a blacksmith shop and a cheese factory close by the school house.

My father is in the Neillsville testing association. My brother and I joined the Neillsville calf club. My brother is 10 years old. I have a sister 8 years old last summer. My brother and I built 5 bird houses; 3 were wren houses and 2 were robin houses. We are going to build more this summer.

I wish some of the juniors would write to me. I will answer. My address is R. 1, Neillsville, Wis. Henry Peterson.

Faye and Her Guernsey Calf

Hoard's Dairyman Juniors:—As you wrote and told me to tell about my club work and how I raised and cared for my calf, I am writing my second letter. My father was at Wooster and was at the office of Myron A. Bachtell, the county agent. He asked daddy if one of his girls didn't want to join the calf club. He said he would ask us. And when he came home he forgot to say anything about it. In a few days we were talking about something and daddy said that reminded him of what Mr. Bachtell said. He asked us if we wanted to join the club and I said I would but my sister, Vera, 12 years old, said she didn't know if she would or not. But later she decided not to.

Then I asked daddy what calf he was going to sell me. Afterward he told me he sold me the best heifer on the place. And I was very proud of her. I fed her once a day and daddy fed her milk twice a day. He fed her 5 lbs. at a time. I did not feed her very many times a day. Just once. I gave her about 3 lbs. of grain a day for awhile and then I fed her about 5 lbs. a day. I would take her out for a romp every day.

One day I was out along the road that goes just in front of our house and a machine came by and scared her. She ran up the bank and got away from me and ran down to the barn. I could hardly catch her. After I caught her I fed her some grain and put her out in the barnyard. About a month before the Wooster fair I brought her in from pasture and began to feed her extra and wash her once a week, and brush and comb her every day. I fed her 6 lbs. a day and gave her all the hay she would eat.

At the fair I thought I would be afraid to lead her into the show ring. But after I was there I wasn't very frightened. I led her out of the ring and the judge judged the calves. I got a second prize of ten dollars. My calf is 16 months old now. Her granddam, Blanche of Lone Oak, made a record of 7895.90 lbs. milk, 442.65 lbs. fat, in 256 days. Her dam, Long Raider's Blanche, made a record of 8766.20 lbs. milk, 446.3 lbs. fat.
Ohio. Faye Michener.

FACTS ABOUT A FAMOUS FAMILY



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STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

Holstein springers and fresh cows. W. STRAUSS, Route 5, Watertown, Wis. 3-4

Holsteins—Carload young cows $75.00. EDWARD YOHN, Watertown, Wis. 4-5

Five head registered Holstein females, four to freshen by January. One with A. R. O. record. Forced sale $550.00. Write for particulars. FLOYD HARRIS, Mantorville, Minn. 5-2

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

For Sale—Some good pure-bred Holstein bulls from A. R. O. dams. One ready for service. Several others will be soon. Prices $50 to $100, depending on age and record of dam. PORTER FARMING COMPANY, Colfax, Iowa. 5-2

Waupaca County high grade Holstein and Guernsey cows and heifers for sale in carload lots or will assist you in buying. JENNINGS FARMS, New London, Wisconsin. 5-7

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

For Sale—Twenty-seven grade Guernseys, two year old and yearling heifers. DUTTON & COIT, Galesville, Wisconsin. 3-3

For Sale—Registered Guernseys, male and female, of May Rose Bell Buoy of Linda Vista breeding, who has 32 A. R. daughters with records up to 769 lbs. fat. Federal accredied herd. O. R. SCHWALEN, Roberts, Wis. 3-*

For Sale—Yearling pure-bred and high grade Guernsey heifers. T. B. tested. BENJAMIN FORBELL, Montrose, Minn.

Glenchester Guernseys—Typy bull calves from Advanced Register dams and dams now on Advanced Register test. All registered and free of tuberculosis. Satisfaction guaranteed. Write for our liberal terms and low prices. GLENCHESTER FARMS, INC., Wyebrooke, Pa.

For Sale—2 cars of high grade Guernsey cows and heifers to freshen soon. J. J. JENNINGS, New London, Wis. 5-2

Forty-eight Registered Jerseys—Good size and type are consigned to LaCrosse County Jersey Breeders' Association to sell cheap. Owner will rent farm. JOS. G. GREENE, Bangor, Wis. 3-3

Sophie's Tormentor Jersey bull calves, registered. Accredited herd. Bargain prices. KENWARD FARM, Blue Ash, Ohio.

For Sale—Carload (or singly) registered Ayrshire cows and heifers, from Deubler's Finlaystone, and Pennshurst Bloomers Star. Accredited herd, no abortion. No reasonable offer refused. LEON C. BURROUGHS, Wysox, Pa. 4-2

For Sale—Entire herd registered Brown Swiss, eighteen cows and heifers, herd bull, young bull. THOS. LOVE, Howell, Mich. 5-3

STOCK WANTED

Wanted—Holstein heifers or young cows, springers, in exchange for excellent proven 34 lb. sire. Federal accredited. M. WEBER & SONS, Merton, Wis.

SWINE

Hampshire Hogs for Sale—The Hampshire hog is at home in the dairy comunity as they are good rustlers. We can give you a good start with a small investment. E. G. LEWIS, Media, Ill. 24-8

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred Hunting Hounds cheap. Trial catalogue. BECK, W19, Herrick, Illinois. 5-4

FEEDS

Soy Beans for Feed. Many Agricultural Colleges recommend soy beans to replace oil meal for dairy cows. We offer a limited amount of ground or unground at bargain prices. E. G. LEWIS. SEED CO., Media, Ill. 24-8

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

For Sale—150 tons alfalfa and clover hay, $15.00 f. o. b. Twin Lakes, Wisconsin. BELVOIR FARMS, Lake Geneva, Wis. 4-3

Wanted—Two carloads good cow hay. State price. JOE POGACT, Chappaqua, N. Y. 5-2

SILOS

14x30 Indiana silo, one-piece stave, sound; southeast Colorado. CADY, 5 West 125th, New York City.

FARMS FOR SALE

Farm land prices are low and terms easier than they will ever be again in the Northwest. Low round trip homeseeker and summer tourist tickets to Minnesota, North Dakota, Montana, Washington and Oregon. Free descriptive book. E. C. LEEDY, Great Northern Railway, Dept. 82, St. Paul, Minn. 23-*

Minnesota offers opportunities to farmers. Send for free map and literature. O. H. SMITH, Commissioner of Immigration, Dept. 676 State Capitol, St. Paul, Minnesota. 25-9

Official facts on Wisconsin farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis. 2-4

Pennington County, Minnesota. Come into the best dairy and diversified farming section in the state; fine black loam with a clay subsoil, heavy in lime. The natural home of alfalfa. Write to FARMERS' AND MERCHANTS' STATE BANK OF THIEF RIVER FALLS, Minnesota, for information regarding some real snaps as to value and terms. 2-4

Register and Secure a Farm. Hundreds have already started on our wonderful colonization plan. Come and see their fine new homes. We will also help you start in Wisconsin. You can get 40 or 80 acre dairy farm for only $100 deposit and balance in 10 years. Close to big towns. Many neighbors. Best, richest, gently rolling Wisconsin clay loam. Only $2000 for 40 with nice house, good barn, best milk cows. A greater opportunity than a U. S. Homestead. Particulars free. NATIONAL LAND COLONIZING CO., Dept. F 7, Madison, Wis. 3-3

For Sale—Two farms, one of 150 acres, one of 120 acres, fully improved dairy farms in Chippewa County. Price reasonable. For prices, description, and terms address C. L. CHRISTIANSON, Executor, Bloomer, Wisconsin. 3-3

For Sale—80 or 160 acre farm near La Porte. Good improvements, black, level soil. Address Owner, BOX 23, R. 6, La Porte, Ind. 4-2

For Sale—$10,000; fine fertile, Eastern Pennsylvania farm, 60 acres, with equipment. 8 head pure-bred Holstein-Friesian cattle, fine flock of poultry and the year's crops. Good water supply. Very good buildings. Write for particulars. Address BOX 236, care Hoard's Dairyman. 5-2

Splendid Vermont dairy farm on state road. Excellent buildings, fertile soil. Large amount wood and lumber. Near good village. Price reasonable. BOX 18, Chelsea, Vermont.

Found. In Wisconsin a great alfalfa, corn, potato, clover and dairy country. Shawano, Oconto and adjoining counties. Send for free picture catalog of farms. Deal direct, no commissions. WISCONSIN FARMERS & HOMESEEKERS SERVICE BUREAU, Marshfield, Wis.

167 acres near village. 23 cows, crops, furniture, 3 horses, 6 heifers, 7 calves, bull, hogs, poultry, dog, vehicles, gas engines, milking machines, complete implements and tools included; high class farming section, on good road, close stores, school, churches; good markets; 75 acres loamy fields, 40 cow spring watered wire fenced pasture, woodland; 50 apple trees, pears, plums, cherries, grapes, berries; good 2 story, 8 room house, porch, maple shade, lovely view; 90 ft. basement barn, stable, granary, poultry, ice, milk house, etc. To close affairs, low price $9.000. Part cash. A. B. CRUTE, 95 Chenango St., Binghamton, N. Y.

FARMS WANTED

You have not been able to convert your farm into cash. There is a reason. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

PARTNER WANTED

Working Partner Wanted—Dairying. Population 3000, growing fast, practically only dairy. Big opportunity. If interested write quick to WOODLAND DAIRY, No. 871, New Smyrna, Florida.

Wanted—Dairy farm partner. R. N. SNOW, Pagosa Springs, Colo. 5-5

MACHINERY

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 25-10

Cletrac Crawler Tractors. Used and new. CHADWICK BROS. CO., 430 Broadway, Milwaukee. 4-4

Milking Machines—Brand new, latest improved models, all makes. Trade in your old machine at liberal allowance. FELIX JULIUS, Stockton, Ill.

For Sale—De Laval cream separator with motor. 2 years old. 1201 W. Lake St., Chicago.

For Sale—2 double units Universal milker complete with piping 20 cows. Quit dairying. Price $200.00. HENRY RICKELS, Anamosa, Iowa.

For Sale—Universal milker with B. L. K. pump. $30.00 takes it. JOHN RENKES, Fulton, Ill.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

TOBACCO

Homespun Tobacco. Chewing 5 lbs. $1.75; Ten $3.00. Smoking 5 lbs. $1.25; Ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 5-4

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Use Cowtone if you have trouble getting cows with calf; easy to use. $1.50 postpaid. Money back if it fails. ARTHUR CLAUSING, Zillah, Wash. 5-2



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, willing to accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

Wanted—Cow tester with experience who can hustle and who understands feeding cattle. No beginners. Good wages for the right man. H. R. NOBLE, County Agent, Stevens Point, Wis. 3-3

Male Help Wanted—Firemen, Brakeman, for railroads nearest their homes—everywhere; beginners $150—$250 monthly (which position?) RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 3-5

Men—Women. 18 up. Get U. S. Government Life Positions. $95 to $192 month. Steady work. No layoffs. Paid vacation. Short hours. Pull unnecessary. Candidates coached. Common education sufficient. Full particulars free. Write immediately. FRANKLIN INSTITUTE, Dept. P107, Rochester, New York. 4-5

Wanted—Herdsman, to take charge of Guernsey herd, experienced in making A. R. records. Single man. Give reference. WM. M. JONES & SON, Waukesha, Wis. 4-*

Position open for first class farmer and dairyman, single man of good habits, thoroughly competent in care and handling of high class stock, team, tractor, and all modern farm machinery. E. S. CHANDLER, Bristol, Pa. 4-2

Wanted—Working herdsman, single, on one of best equipped dairy farms in Illinois. College training preferred. Must be economical feeder, able to mix rations, compute butterfat tests and keep records. Clean habits and ability to handle men essential. Give references, age. State salary in first letter. RO-KER FARMS, La Salle, Ill. 4-2

Wanted—Men with dairy experience for cow testing association work September 1. Salaries $70 to $80 per month. Give references first letter. H. E. JAMISON, Dairy Department, University of Illinois, Urbana, Illinois. 5-2

Wanted—Farm hand for general farm work. State wages and experience. Address BOX 240, care Hoard's Dairyman.

Wanted—Man for tractor and also team work, in Wisconsin. Must understand both. State wages and experience. Address BOX 239, care Hoard's Dairyman.

Wanted—Young man, single, to learn herdsman's duties in herd. Imported Jerseys. Must be good milker. H. W. AYRES, R. 78, Jamestown, N. Y. 5-3

Dependable Man Wanted—With experience and ability to care for a herd of registered and grade Holsteins, manage a herd of registered hogs and operate farm. Should be married, not afraid to work and know how to care for pure-bred cows and hogs, handle their pedigrees, and do all things needed on a farm where high class animals are maintained. For additional details address DR. A. HEINZELMANN, 205 Jenkins Bldg., Kansas City, Mo.

Wanted—A sober, reliable, and agreeable married man to work on dairy farm to assist with the milking and do general work, in fact anything that comes to hand. Prefer a man who had some members of the family that could assist with the milking. House, garden and fire wood furnished. H. E. BOSWELL, Box 66, Burkeville, Va. 5-2

Want a single man as herdsman, with a herd of Registered Holstein cattle. State experience, also wages desired. MARINETTE COUNTY ASYLUM, Peshtigo, Wis.

Wanted at Once—2 middle aged men who can milk 20 head of Jersey cows each. Must be clean. Good home and wages. SWISS DAIRY, Quincy, Fla. 5-3

Wanted November 1—Competent married man to work 180 acre Holstein dairy farm near Dixon, Illinois on shares or salary. Good house and barn. Send references first letter. Address BOX 235, care Hoard's Dairyman. 5-2

Wanted—Middle aged lady to help with the house work. Five in family. Good place and good wages. Must furnish reference. ISAAC STOPPLE, Walworth, Wisconsin. 5-2

Wanted at once, single man, on modern farm, between 20 and 30 years of age, of clean habits, who loves cows and young stock, understands milking machines and separator and is good feeder and cow man. Electric lights and power. James equipment throughout. Good wages. FERNWOOD FARMS, Walter E. Jenney, Mgr., Pewaukee, Wis.

Wanted at Once—A single man to work in dairy barn. Must be a first class dry hand milker, a worker and have good habits. A real job for the right fellow, and the best living conditions. POPLAR DAIRY FARM, Box 371, Uniontown, Pa. 5-2

Wanted—White man and wife both good milkers, to handle small herd and milk 12 cows. Man must understand cultivation cow peas and oats for winter grazing. Wife to care for milk and assist in general house work. State experience and wages in first letter. C. M. RUSSELL, Handsboro, Miss.

POSITION WANTED

Superintendent, 40, college training, 15 years successful, practical experience farm and estate management, desires position. A-1 reference. Address BOX 225, care Hoard's Dairyman. 3-3

Manager, college graduate, single, experience in every phase of grain, stock, dairy farming, gardening, marketing, wants to change. Specialty breeding and development of dairy cattle. Only large, modern proposition considered. Salary or share basis. Please write BOX 224, care Hoard's Dairyman. 3-3

Couple—Americans, Scotch-Irish, Protestants, Man, thorough farm and estate experience, capable taking charge. Wife, excellent cook, laundress or houseworker. Age 35. Two boys, 5 and 6. Best of references. Address BOX 231, care Hoard's Dairyman. 4-2

Position Wanted—As herdsman, by single, middle aged man, on pure-bred modern dairy. A. R. O. Veterinary ailments. State wages and conditions. Address BOX 238, care Hoard's Dairyman.

POSITION WANTED

Will be open September 1st for superintendency dairy farm or will consider renting on shares. Married. Life experience. Address BOX 237, care Hoard's Dairyman.

Position wanted by experienced dairyman, married. I have plenty of help. Capable of taking charge of an up-to-date dairy. BOX 13, Burkeville, Va. 5-2

Married man wants job as foreman on dairy farm. Understand milking machine, tractor, and handling help. Lifetime experience. Best references. C. L. COBURN, Carleton Hotel, Beloit, Wis.

Position Wanted—As farm manager or herdsman. Life time experience in all branches of farming and raising Holsteins. Particularly experienced in official testing of Holsteins, have made good A. R. O. records. Keep accounts and records. Judge of show cattle. Have handled dispersal sales. Best of references. JOHN BOHRNANN, 923 Milwaukee Ave., Racine, Wisconsin.

Wanted—Work and home on good, small dairy, truck or general farm. Would rent an equipped farm. Minnesota, Wisconsin or Canada preferred. HORACE GODFREY, Fayette, Mo.

South Dakota Butter Champions

South Dakota has six new champion butter producing Holstein cows, according to the Advanced Registry Department of The Holstein-Friesian Association of America.

Pansy Lockhart Genesta is now the state's leading cow for ten months production as a junior four-year-old with a record of 22,770.1 pounds milk containing 729.18 pounds butterfat equivalent to 911.4 pounds butter. She is owned by F. W. Barth.

For ten months' production as junior two-year-old Beauty Mercedes Colantha Nig, of the same herd, holds the state's highest record with 16,844.3 pounds milk and 543.41 pounds butterfat—equal to 679.2 pounds butter.

The state's new high cow for one year's production as a junior four-year-old is Yankton Gerda Pontiac Beryl, owned by the State Hospital. Her record is 24,309 pounds milk and 704.3 lbs. fat (880.4 pounds butter).

A record of 18,931.6 pounds milk and 701.36 lbs. fat (876.7 pounds butter) in ten months makes Redfield Segis Johanna of the State School or Home for Feeble-Minded herd the state's new leader among senior two-year-old cows.

Ormsby Korndyke Johanna, owned by F. E. Johnson, is now the state's highest record cow for production in ten months as a full age cow. Her record is 21,629.7 pounds milk 649 lbs. fat and (811.4 pounds butter).

Another cow in the Johnson herd, Clothilde Vernon Rose, now holds the highest record in the state for ten months' production among senior three-year-olds. Her record is 20,585 pounds milk and 641.6 lbs. fat (802 pounds butter).—Holstein-Friesian Ass'n of America.

BULL CALVES

Desirable sons of Sir Charlevoo Ormsby Finderne whose dam produced 35,339.5 lbs. of milk and 1,278.56 lbs. of butter in 365 days and out of short and long time record cows.

J. B. JONES FARMS, Romeo, Mich
FRANK BOCK, HERDSMAN

For $250 Son of a 1024 yearly record granddaughter of King of the Pontiacs. Grandson of Sir P. O. M. 41st. Born Nov. 8, 19 Splendid individual, good size, mostly bla
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SALE ANNOUNCEMENTS

Sept. 6—Holsteins. Iowana Farms, Davenport, Iowa.
Sept. 6—Holsteins. Dispersion of the Chas. E. Hay herd at Findlay, Ohio. Ohio Holstein Friesian Association, Managers.
Sept. 8—Cayuga County Guernsey Breeders' Ass'n., Auburn, N. Y.
Sept. 8—Holsteins. Dispersion of Geo. M. Flynn Herd at Medford, Minn., Twin City Pedigree & Service Co., Mgr.
Sept. 9—Guernsey Dispersal. M. A. Obercash, Hummelstown, Pa. (near Harrisburg).
Sept. 10—Holstein Dispersal Sale. J. C. Kostman, Bruce, Wis. W. H. Krause, Sale Mgr Thorp, Wis.
Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades Dassel, Minn. A. B. Rayburn Mgr.
Sept. 15—Guernseys. Louis Merryman, Timonium, Md.
Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.
Oct. 6-7—Holsteins. Wisconsin Dairy Show Sale at Waukesha, Wis. Wisconsin Holstein Friesian Association, Managers.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.

Friendly Talks For Farm Folks

Last year on Labor Day Hal Purdy and his family decided that they would take a much deserved and needed vacation and get onto the road with the rest of the world and have a good time. So forth they started bright and early, even if the haying wasn't quite finished and several little things about the farm needed attention. They hadn't been driving more than an hour when the left hind wheel gave an awful bang which announced to all that a blow-out was first on the program. After Hal and the oldest boy had labored manfully in the scorching sun for the better part of two hours to get the thing patched up—Hal hadn't seen his way clear to getting a new spare as yet—they all piled in again and started out on the joyous vacation day. By that time it was pretty near noon and the younger kids were making motions toward the lunch basket. Hal promised that at the first shady place with a spring they would stop and eat, so he and Mrs. Hal gave their undivided attention to the view for a few more minutes, ignoring the quarreling and so on proceeding merrily on the back seat. Hal was pretty tired and cranky after the tire episode and Mrs. Hal was too warm and happened to remember that she had forgotten a pie in the oven in the rush of getting started, which didn't cheer matters up much. The oldest boy was reading a comic strip on the back seat in the midst of the younger children, and was grouching to himself because he hadn't stayed home and gone swimming with some of the neighboring boys. Pretty soon an ideal spot for lunch hove into sight and Hal stopped the machine and all hands prepared to descend and give the inner man nourishment, Mrs. Hal being a fine cook. But when they went to get the capacious lunch basket on the floor in front of the back seat, it simply wasn't there. "Where's that lunch basket?" demanded Hal and Mrs. Hal in unison as they hunted around for it. Where in blazes has the thing gone to, I should like to know!" "Why, pa," answered Mary, the five-year-old girl innocently, "the baby threw it out a long ways back but we didn't want to make you stop 'cause you was cross about the tire." About three o'clock the Purdys arrived home, not rested and refreshed as those are supposed to be who devote themselves to pleasure on a laborless Labor Day, but most decidedly hot and tired and hungry. "Serves me right for leaving the haying," said Hal to himself after all hands had filled up on burned pie and stale bread. "What business has a farmer got to take a vacation anyhow?"

⚜

Perkins Crumb allows that if the fly season don't get over with pretty soon, he'll have the hired man spray his bald head along with the cows night and morning.

⚜

In the good old days before the era of gasoline engines, they used to change the horses every hour when they furnished the power for threshing and the like. But nowdays, the farmer does the treading without any change whatever, while his contemporaries in the city get every holiday and Saturday afternoon off, not to speak of an eight-hour day. But the silver lining is that the city man has to do something so he spends his money and has nothing left.

⚜

Alton Springer has confided to his mother that he's got to quit going with that new clerk in the five and ten as her strong perfumery gives him a headache. The double distilled scents are sort of strong after being used to the more subtle smell of clover hay and daisy and curing hay made after the Lord's recipe.

⚜

To illustrate the power of habit, a summer boarder from the city, who originally hailed from the country herself, just can't get used to the taste of fresh milk because she has become accustomed to the different taste of pasteurized milk. She says she can't enjoy milk again until she goes home in the fall.

⚜

It seems very unlikely at this writing that Paul Holcomb will get his haying done this year until December, as he has a perfectly legitimate excuse in not beginning as usual toward the later part of August, inasmuch as everyone knows the season is just a month late this year. Paul manages most years to get all through by the first of October with good luck. This is a great life if a fellow vows not to worry.

New York. HELEN S. K. WILLCOX.



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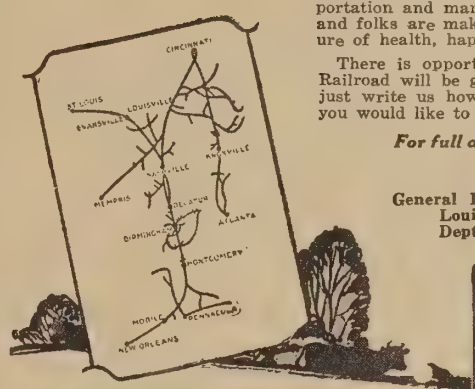
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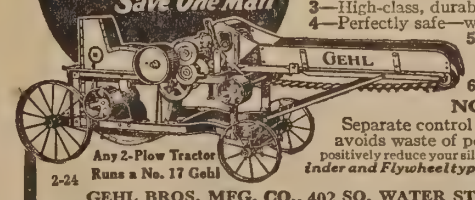
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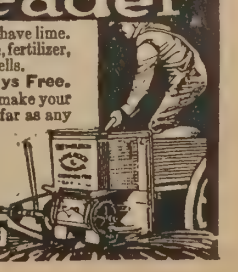
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POULTRY On The DAIRY FARM



The Hen on Trial

Careful Checking Proves Her Case

HOARD'S DAIRYMAN:—If a thief robbed a hen roost, entered a home or in any other manner took property without giving adequate value in return, he would, if detected, be tried, and if evidence of his guilt could be proven, he would be punished.

On nearly every farm where poultry is kept there are thieves constantly reducing the profit from the flock, that in many cases go undetected year after year. These thieves, known during war-time as the "slacker hen", are the birds that eat good, high priced grain, representing money and fail to produce enough eggs to pay for the cost of the feed. They are taking valuable property, which represents money, and do not give value in return, therefore they are thieves and should be tried.

Plenty of evidence is there and needs only a little observation on the part of the owner to prove the case against the unproductive hen. All hens that lay well have certain characteristics and no hen that does not lay well can possibly have these qualities.

Several methods are in vogue for determining these qualities and thus detecting the unprofitable birds in the flock. Nearly all of these methods give satisfactory results and have been practical for years, yet on the general farm culling for egg production is not generally practiced and heavy losses that might otherwise be checked are suffered in consequence.

The following method is one that has been practiced by the writer for years and can easily be learned by even the inexperienced poultry keeper. No claim is made for any one best method, but the method given has produced very satisfactory results. The method follows:

In Order to Lay Well a bird must have a sound body. As a first consideration a bird must be vigorous and healthy if it is to be able to lay well. Vigor and health are shown by a bright, clear eye, a well set body, a comparatively active disposition and a good circulation.

Further, the bird must be free from physical defects such as crooked beak, excessively long toe nails, eyelids that overhang, scaly leg, or anything else that would keep the bird from seeing or getting an abundance of food.

Loss of Fat Due to Laying

Color of Pigmentation Changes. (These should be observed by daylight.)

A laying fowl uses up the surplus fat in the body, especially it removes the fat from the skin. In yellow skinned breeds this loss of fat can readily be seen by the loss of the yellow color. The different parts of the body tend to become quite white, according to the amount of fat stored in the body and the amount of circulation of blood through that part. The changes occur in the following order:

The Vent changes very quickly with egg production so that a white or pink vent on a yellow skinned bird generally means that the bird is laying, while a yellow vent means a bird is not laying. It should be recognized that all yellow color changes are dependent on the feed, the coarseness of the skin, and size of bird. A heavy bird fed on an abundance of green feed or other material that will color the fat deep yellow will not bleach out nearly as quickly as a smaller or paler colored bird.

The Eyering, that is, the inner edges or the eyelids, bleach out a trifle slower than the vent. The earlobes on Leghorns and Anconas bleach out a little slower than the eyering, so that a bleached earlobe means a little longer or greater production than a bleached vent or eyelid.

The Color Goes Out of the Beak beginning at the base and gradually disappears until it finally leaves the front part of the upper beak. The lower beak bleaches faster than the upper but may be used where the upper is obscured by horn or black. On the average colored, yellow skinned bird, a bleached beak means heavy production for at least the past four to six weeks.

The Shanks are the slowest to bleach out and hence indicate a much longer period of production than the other parts. The yellow goes out from the scales on the front of the shanks first. The scales on the heel of the shank are the last to bleach out and may generally be used as an index as to the natural depth of yellow color of the bird. A bleached out shank usually indicates fairly heavy production for at least 15 to 20 weeks.

Body Changes Due to Laying

A Laying Hen has a large, moist vent showing a dilated condition and looseness as compared with the hard, puckered vent of a non-laying hen.

The whole abdomen is dilated as well as the vent so that the pelvic arches are widespread and the keel is forced down, away from the pelvic arches so as to give large capacity. The more eggs a bird is going to lay the following week the greater will be the size of the abdomen. The actual size of the abdomen is, of course, influenced by the size of eggs laid and by the size of the bird.

Heavy Production is shown by the quality of the skin and the thickness and stiffness of the pelvic arches. Fat goes out from the skin and body with production so that the heavy producers have a soft, velvety skin that is not underlaid by layers of hard fat. The abdomen in particular is soft and pliable. The sternal processes are very prominent and are generally bent outward. The thicker and blunter the pelvic arches, the greater the amount of hard fat in the abdomen and the less the production or the longer time since production.

One of the Finer Indications, but yet one of the most valuable in picking the high layer, is the fineness of the head and closeness and dryness of feathering. The head of a high layer is fine. The wattles and earlobes fit close to the beak and are not loose and flabby. The face is clean-cut. The eye is full, round, and prominent, especially when seen from the front. The high layer is trimmer, that is, the feathers lie closer to the body and after heavy production the oil does not keep the plumage relatively as sleek and glossy but the plumage becomes worn and threadbare.

Changes in Secondary Sexual Characters

The comb, wattles, and earlobes enlarge or contract, depending on the ovary. If the comb, wattles, and earlobes are large, full and smooth, or hard and waxy, the bird is laying heavily. If the comb is limp the bird is only laying slightly, but it is not laying at all when the comb is dried down, especially at molting time. If the comb is warm it is an indication that the bird is coming back into production.

Molting

When a bird stops laying in the summer she usually starts molting. The later a hen lays in the summer or the longer the period over which she lays, the greater will be her production so that the high producer is the late layer and hence the late molter. The length of time that a hen has been molting or has stopped laying can be determined by the molting of the primary feathers. It takes about six weeks to completely renew the primary feathers next to the axial feathers and an additional two weeks for each subsequent primary to be renewed.

Temperament and Activity

A good layer is more active and nervous and yet more easily handled than a poor layer. A high layer shows more friendliness and yet elusiveness than a poor bird. A low producer is shy and stays on the edge of the flock and will squawk when caught.

While the characters discussed have dealt with the current year's production it should be borne in mind that a high producer one year is, generally speaking, a high producer in all other years.

Egg prices are low and grain prices are relatively high. No man can afford to keep birds in his flock that does not produce enough to more than pay their feed costs.

July, August, and September are the easiest months in which to practice the method given. A little study and practice with this method will do much to increase the profit from the poultry flock.

Rhode Island. S. D. HOLLIS.

Book For Poultry Raisers

Poultry raisers will find "Productive Poultry Husbandry", by H. R. Lewis, a valuable and interesting addition to the book shelf. It presents the subject thoroughly but in such readable form that one enjoys it.

To the farm poultryman it clearly pictures methods which would enable the keeping of more birds with no more labor and at much increased profit. It gives the practices found most efficient by successful poultry raisers and by the various state and national experiment stations. By making free use of its good index, information regarding almost any question on poultry raising and disease control may be located.

"Productive Poultry Husbandry", now in its fourth and enlarged edition, is one of the series of Lippincott's Farm Manuals. It will be sent postpaid upon receipt of $2.50, either by the publishers or by the Hoard's Dairyman Book Department.

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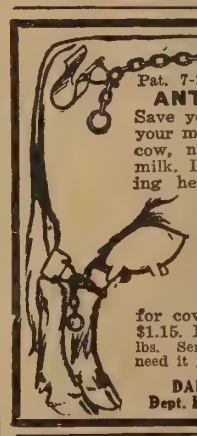
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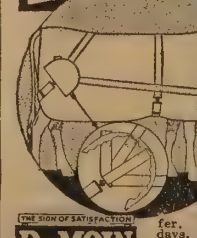


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VETERINARY

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The "Crazy" Cow

It is important to be able correctly to differentiate between the forms of so-called "craziness" in cows. In one form the animal suddenly becomes "raised" and runs amuck when tremendously excited. That sometimes occurs when a cow or steer is being driven on a city street to market or has been unduly excited when in the market or when being led home from the railroad. Often a steer has become "raised" on its way to the stockyards in Chicago and has done considerable damage before being shot. A range steer is most liable to become so affected. When it happens the animal would be likely to recover in a short time if placed in a secluded yard or box stall, kept perfectly quiet, and cold applications were put upon the head. A full dose of chloral hydrate, dissolved in water and injected into the rectum, would also tend to quiet the animal until rush of blood to the head subsided. Similar attacks may be caused by exposure to the hot sun when cattle run on pasture, but are comparatively rare.

A form of the disease that usually is a great puzzle to the owner and sometimes to the veterinarian is that seen affecting a pregnant cow some time before calving. She suddenly goes "crazy" and shows symptoms that often have been mistaken for those of rabies. Affected cows have even been shot, as rabies was thought to be present. For that reason and the possibility of making an expensive error in diagnosis, a veterinarian always should be employed to examine a cow that becomes frantic and apparently "mad". In some attacks of lead poisoning the cow dashes about and falls now and then. Similar symptoms sometimes appear in forage poisoning. These facts emphasize the importance of a correct diagnosis by an expert. In all cases the animal should be penned and watched until the exact nature of the disease can be determined.

In craziness associated with the pregnant condition and technically termed "puerperal mania", the animal becomes violently excited and unmanageable. She runs about pawing the ground, bellowing as if in heat, attacks imaginary foes, threatens to attack animals and man, but does not lay hold with her teeth.

The eyes are staring and excited, as in all cases where the brain is affected, and the white of the eyes may turn red. The membranes of the eyes always are more or less injected and reddened. Feces and urine are expelled involuntarily or spasmodically and muscular twitching may be seen. If a dog comes near, the cow chases it at once and may so attack other animals. The attack does not prove fatal.

When a cow affected in the way described, but is not very violent, is placed in a secluded box stall or pen, the windows darkened and perfect quietude maintained she may recover in a few hours. The violently affected animal is best confined in a well fenced yard or paddock where she cannot get at the other stock and will not be likely to injure herself. Here she should be disturbed as little as possible, but if it proves possible the rectal injection of chloral hydrate may be tried or a large dose of bromide of potash administered. The medicinal treatment is not absolutely necessary. The cow will in time recover, certainly when calving has occurred.

Cowpox

About a year ago my cows go pimples or small boils on their teats which would get very sore and finally get kind of white and scab off. This seemed to spread from one to another even with the frequent use of disinfectants. Now these boils are as large as a pea, covering the teat the entire length. Can you suggest a remedy for this ailment?

Alda, Nebr. H. B.

The cows are evidently affected with cowpox which is readily carried from cow to cow by the milker's hands. The most important measure, when a cow is attacked, is to keep her isolated and have her milked by one who does not handle the other cows. It is also necessary to keep the sores from being infected by filth germs. Twice daily, for 5 minutes or more, immerse the teats in hot water containing all the boric acid it will dissolve, or in a hot 1 to 1000 solution of chinosol. Then dry gently and paint the sores with a saturated solution of permanganate of potash.

As soon as the sores apparently are healing cover them each evening with a soft paste of subnitrate of bismuth and castor oil. If any sore is slow in healing, apply strong iodine ointment once or twice daily. Milk with clean, dry hands. If a milking tube must be used to draw off the milk, boil it for 15 minutes, and apply carbolized vaseline each time before inserting it in the teat. Cleanse, disinfect, and whitewash the cow stable, including the floors and gutters.

Depraved Appetite

Please tell me why two out of ten of my cows eat rotten wood and board and just smell around the corral for it.

Colorado. R. N. S.

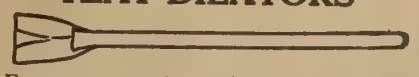
Indigestion commonly is the cause of a craving for wood, bark, bones, rags, and other foreign substances. The ration may lack some needed element. Allow free access to salt and feed a generous ration of ground grain, bran, and oil meal, in addition to good pasture. If that does not suffice give each cow a tablespoonful each of bicarbonate of soda and powdered wood charcoal twice daily in her feed. Increase the dose of soda, if the symptoms do not quickly subside.

Obstructed Teat

I have a promising heifer that had a calf about three weeks ago. One teat is about closed. What can I do for it, please?

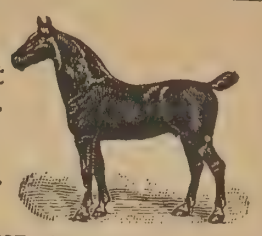
E. Dubuque, Ill. W. W.

A teat plug or dilator that has been sterilized by boiling should be used to enlarge the opening in the teat. If that does not suffice it will be necessary to slit down through the stricture in four different directions with a teat bistoury. It would be advisable to have a veterinarian operate.

MEDICATED WAX TEAT DILATORS

For sore teats, obstructions, Spiders, Hard Milkers, etc. 25c per doz., or 5 doz. for $1.00, postpaid. MOORE BROS., Dept. H, Albany, N. Y.

DAISY FLY KILLER PLACED ANYWHERE ATTRACTS AND KILLS ALL FLIES. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 5 by EXPRESS, prepaid, $1.25.


HAROLD SOMERS, 150 De Kalb Ave., Brooklyn, N. Y.

Does not scar or discolor the hair

NO CHANCE of a scar or discolored hair when you use Gombault's Caustic Balsam. The 41-year-tested remedy for most horse ailments. Supersedes firing and cautery. Dependable and quick in results. Directions with every bottle. $1.50 per bottle at druggists or direct upon receipt of price. *Good for human use, too.* The Lawrence-Williams Co., Cleveland, Ohio.
GOMBAULT'S Caustic BALSAM

La Belle Silver Fox Farm
INCORPORATED
Breeders of— HIGHEST QUALITY REGISTERED
SILVER BLACK FOXES
Fully Guaranteed Breeding Stock for Sale

It will pay you to investigate this wonderful new industry. We solicit your consideration.
DR. O. STADER, Secretary, Oconomowoc, Wis.
Members of the National & Wis. Fox Breeders' Ass'ns.

CORN HARVESTER cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $26 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS MFG. CO., Salina, Kan.

AYRSHIRES

Accredited Ayrshires
Good type and production are found in our herd. A special price on young stock. Write for prices.
W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering
BULL BORN APRIL 18, 1924
Color: white with brown cheeks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.
Herd Federally Accredited—Certificate No. 10241.
Price: $125.00
GLEN FOERD FARMS, Torresdale, Pennsylvania.

Ayrshire Bull Calf
Five months. Dam has 300 day record, 11591 lbs. milk, 450 lbs. fat. Calf by same sire as Sr. 3-year-old R. of H. World's Champion. Accredited Herd. Price $125.00.
SYCAMORE FARMS, Douglassville, Pa.

FOR SALE
Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires
AT FARMERS' PRICES
Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.
CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Ayrcroft Farm Ayrshires
Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.
B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale
Accredited herd No. 62105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.
Wm. NISBET & SONS, Richland Center, Wis.

Edgerstoune's Luxury Bond
A Promising Young Bull For Sale

Edgerstoune's Luxury Bond
Born Aug. 10, 1923
His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.
EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

Making Soy Bean Hay

(Continued from page 101)

success in curing. I doubted if soy bean hay could be cured in good fashion in a wet fall as we had in 1923 by cutting with a binder and shocking, but after looking at Mr. O'Keefe's fine hay I am convinced that this method is possible and where the plants reach a fair height, is a desirable method because the coarse, woody part isn't all saved and a cleaner hay is saved. At University Farm where we tried curing after cutting and shocking, some of the bundles molded in the centre, but we had an unusual rainy spell very unlike the average September.

Ways of Handling Crop After Cut

There are probably as many ways of handling soy bean hay as with any other hay—but it is the aim of every farmer to so cure his hay that it is most palatable and contains the most feeding matter. Our investigators find that hay cured in cock has a higher feeding value than hay cured in swath or windrow, especially if it has been subjected to a rain. On large acreages, especially in short labor times, the cocking of hay is about impossible but where help is available I believe that the extra time required is a good investment. J. W. R. Smith, veteran soy bean grower of Ohio, has for years cured acres of soys for hay and his method consists of cutting one day, and after only a few hours, probably soon after the dew is off the next morning, uses a side delivery rake and then uses it as often as necessary until the hay is cured. Mr. Smith leaves the hay in the windrows until ready to haul into the hay mow and then bunching only previous to hauling without shocking. Mr. Smith's experience leads him to believe that there is no wasted or spilled beans if they are cut just before the leaves begin to fall if the beans are fully grown but still green, but believes that the side delivery rake essential when cutting for hay or seed, in that the field can be turned over so very easily. However, on our smaller Wisconsin farms with limited areas of soy beans for hay, possibly the cocking would be more desirable.

Professor Delwiche of Wisconsin is a strong advocate of cocking into small cocks soon after cutting. On lighter soils where drainage is excellent this immediate cocking will give excellent curing, but for larger acreages and heavier soils, a cutting of the hay one day, then raking early the next morning before leaves become brittle, then cocking, is probably the practice most widely followed. Because of the character of stubble being loose, oftentimes it is wise to make cocks direct from swath instead of raking or using side delivery. Available labor will determine the method. It is well to know that soy hay cocked rather green before leaves have become brittle, rolled up or fallen off, will shed water better than when cocked later. After putting into a small cock, narrow and high, rather than wide and low, very little attention need be given. In damp weather a better grade of hay is realized from just leaving the cocks alone, rather than spreading them out too often. Some farmers make small cocks, then double them up after a few days. Others find that better results come from leaving in swath for probably a day, then putting directly into medium sized cocks and leaving them until day of hauling into barn, when a few hours previous to hauling every cock is turned over so as to drive off moisture on lower side of cock.

When old fashioned reaper is used—the bunches can cure as they have fallen. There is not so much in a place to mold, and there is just about enough to make a small forkful. In that it is lying loose, air will circulate some and in a reasonable fall, good curing is assured. If crop attains a height where a binder can be used, the soys could be handled as with a reaper, using no twine. However, after more trials with binder and twine, maybe this method will be more widely practiced, because of ease in handling the bundles.

Then there are a few men besides McMillan who have been brown curing their soy bean hay. Take Fred Sack of Wood County; last season he waited until early September to cut his 23 acres of soys. When he finally got them cut, it rained and rained and he became so discouraged he put the full amount into a large, open shed. The pile heated—steam came from all directions, mushrooms covered the whole surface two weeks after putting into stack. To his surprise, in midwinter when he investigated this pile to see if he could use it for feed or fertilizer, after cutting through a few inches of outside, worthless rotten material, he came into the finest of brown cured hay one could ask for. Sure, there was some waste, but the way cattle dig into almost unfeedable hay is a wonder. Word came from Mr. Thomas of Indiana (I have also heard farmers of this state, too) that it is surprising how cattle will consume this brown cured hay. They will even eat stalks cured this brown method that they wouldn't eat if cured the regular way. But, then, I'm not advising farmers to resort to brown curing of soy bean hay. It is only the last resort and, personally, I would try it only in an out-of-the-way building or stack.

JERSEYS

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

Belswood Farm Jerseys

Offering bred or open heifers. Heifer calves. Bull calves. Herd Federal Accredited. Write for pedigrees and prices.
A. F. BLOCK, Mgr. Norwood Park, Ill.

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

"Just Jerseys"

Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.

The Oaklands, R. 5, Ann Arbor, Mich.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy., R4, Box 5, Springfield, Ohio

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
R. S. HAGER, PRAIRIE DU SAC, WIS.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

GUERNSEYS

GUERNSEY

Production is increasing
Values are increasing
Demand is increasing

Resulting in a good market for your surplus stock. Let "The Story of the Guernsey" give you the details. Ask for it,—we will do the rest.

THE AMERICAN GUERNSEY CATTLE CLUB
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HILLBROOK FARM GUERNSEYS

Herd Sire—
LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in Class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.
CHAGRIN FALLS, OHIO
For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

Thorn Hill Farm Guernseys



Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to
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SERVICEABLE BULLS with best of breeding for sale. Write
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We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.
Send for new list.
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Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.
Accredited herd No. 50474.
WADDINGTON FARM, Wheeling, W. Va.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

BULLS 6 to 10 Mos. Old

From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.
F. E. FOX, Secretary. Waukesha, Wis.

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Several bull calves approaching service age $65.00 to $75.00. Bulls three months and older, $50.00 and up. Best of A. R. breeding.

WM. A. ERBACH, D. V. M.
Athens, Wisconsin

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.
Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

Summer Bargains In Guernsey Bulls

Midsummer price reduction sale of Registered Guernsey males, calves and yearlings, May Rose breeding, mostly from A. R. cows. Federal Accredited herd.
RICHARD F. KLEMM, Baraboo, Wis.

Homestead Farm Guernseys

FOR SALE, bulls of serviceable age and younger, bred for production and type. Cows, 2 to 7 years old, fresh or to freshen soon. Also two heifer calves. Write
JAMISON BROS. R. 2, Appleton, Wis.

JEFFERSON COUNTY GUERNSEYS

combine type and production. We offer high grade and pure-bred cows, heifers and calves of all ages from clean, healthy herds free from T. B. Buy that bull needed for fall service now.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.,
J. C. Ralston, Sec'y., Fort Atkinson, Wis.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.
Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys.
We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.
Send For New Price List

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM • • • Waterloo, Iowa



Raleigh's Torono's Meme 544207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood

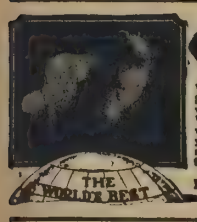
We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.
HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

Delaware Butter Champions

Delaware has two new champion butter producing Holstein cows, according to an announcement made by the Advanced Registry Department of the Holstein-Friesian Association of America.

Winterthur Vernon Burke Luna is now the state's leading cow for one year's production as a senior four-year-old with a record of 24,529.9 pounds milk, 956.66 pounds fat—equal to 1,195.8 pounds buttter. She is owned by Winterthur Farms.

For ten months' production as a senior four-year-old, Winterthur Uneeda Alcartra Nierop, of the same herd, holds the state's highest record with 22,606.5 pounds milk containing 692.67 pounds fat, equivalent to 865.8 pounds butter.—Extension Service—Holstein-Friesian Ass'n of America.



Bargains in Blue Ribbon White Collies

Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home--joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.
SHOMONT KENNELS
Box 117 Monticello, Iowa

SWINE

HAMPSHIRES

Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-OUT-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

BROWN SWISS

ANNOUNCEMENT

Kinnelon Farms, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name, ownership and location.

The entire herd will be moved this month, August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.

The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.

Herd fully accredited, Certificate number 65301

LEES' HILL FARM, New Vernon, N. J.
P. O. Morristown
MR. AND MRS. WARREN KINNEY, Owners
HARRY KROEMMELHEIM, Herdsman

HOLSTEINS

WAUKESHA COUNTY HOLSTEINS

BARGAINS
In Purebred Tuberculin Tested Holsteins
Sold Subject to a 60-Day Retest

35 Registered cows due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 Registered Heifer Calves, sired by a 30 or 1000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head.
This is only one of several bargains that we are able to offer you in better bred Purebred Holsteins where breeding has been in progress for twenty years. Wire or come at once. Buy before prices advance.
WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.
DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.
If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Dousman, Wis.
A clean herd under state and federal supervision

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

Green County Holtsein Breeders' Association

Can furnish Holsteins. Choice grades and pure-breds, all ages, any number. Bulls of serviceable age. Calves for calf clubs. Reasonable prices.
J. W. KEATING, Sec'y, Monroe, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Fond du Lac Co. Holstein Association

OFFERS GOOD HOLSTEINS

both pure-breds and grades from clean herds. If you want cows, bulls or calves for calf club work we can supply your order up to several car loads. Our prices are very reasonable.
CARL BRUGGER, Sec., Fond du Lac, Wis.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
N. T. GILL, Sec'y., Reedsburg, Wis.

HERD SIRE FOR SALE
Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

CRYSTAL STOCK FARM offers choice, high-grade Holstein heifer calves at $17. Pure-bred bull calves, $30 and up. Crated f .o. b. our station. High-grade Holstein Springers, carlots or less, pure-bred cows and heifers at farmers' prices. Before you place your next order write
J. C. BOLGER, WATERLOO, WISCONSIN.

GRADE HOLSTEINS—PRICED RIGHT

Several carloads good grade heifers and cows due in Oct. They are healthy. Select what you want from a Holstein section not picked over by earlier buyers.
RANDOLPH HOLSTEIN ASSOCIATION
S. W. PIERCE, Sec. Randolph, Wisconsin

BUY YOUR HOLSTEINS

where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.

Our Honor List Traverse Inka Johanna 2d, 440605

Bred, owned, and developed by
TRAVERSE CITY STATE HOSPITAL, TRAVERSE CITY, MICHIGAN
Her sire has 84 A. R. O. daughters, including five above 30 lbs., and her dam has a record of 33.27 lbs. butter and 736.4 lbs. milk.

RECORDS:

At 2 yr. 2 mo.:	Butter,	7 days,	18.89; Milk,	383.4
At 3 yr. 2 mo.:	Butter,	7 days,	27.74; Milk,	599.5
At 4 yr. 4 mo.:	Butter,	7 days,	28.47; Milk,	645.9
	Butter,	30 days,	116.80; Milk,	2656.7
	Butter,	305 days,	955.76; Milk,	22400.2
	Butter,	365 days,	1080.20; Milk,	25151.1

In the last honor list, she stands second in butter and third in milk production in Class 4 in the 305-day division and seventh in butter and sixth in milk in Class 4 in the 365-day division.
Michigan State Herds are offering a few choice young bulls ready for the fall and winter breeding season. Send for our sale list.
BUREAU OF ANIMAL INDUSTRY
Department B Lansing, Michigan

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

200 Carloads of Holsteins

is our motto for this year. We can supply you with as many as you want. Carload lots our specialty. Fine selection, courteous service, and reasonable prices. Less than one-half of one per cent T. B. Home of the World's Greatest Bull Association.
LIVINGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
Burr J. Hoover, Secretary Howell, Michigan

Iowana Ona King Pietertje Born July 25, 1923

A son of Meadow Holm Ona Hartog King, and from a daughter of Sir Johanna Fayne. His dam has a good two-year-old record and is dam of a 950-pound junior three-year-old.
Bull is three-fourth white and a fine individual.
Send for pedigree and particulars.
IOWANA FARMS (*Herd under Fed. Supervision*) Davenport, Iowa

This is Only One

of the great daughters of K. K. S. V. 24th that make up the greater part of our herd. Her records: 35.96 lbs. B. for 7 days, 958 lbs. for a year. Other daughters include one with 32 lbs. and 4 heifers that average 805 lbs. B., 21,000 lbs. milk at 3 years, 3 months. Send for illustrated circular.



Queque Korndyke Sadie Vale

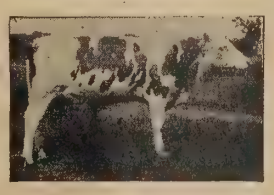
Line bred Sadie Vale bulls for sale.
HOME FARM HERD — *Accredited. Estab. 1881.*
W. B. BARNEY & SONS - - - CHAPIN, IOWA

Bargains in Registered HOLSTEIN BULLS--- all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.
Hargrove & Arnold, Norwalk, Ia.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—King Piebe Ormsby Mercedes, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and King Pietertje Mercedes Ormsby, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.
Herd tuberculin tested. Write for information or visit herd.
P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.



This Handsome Bull For Sale -- $400

Six nearest dams average 1007 lbs. butter in a year.
Sire, SIR WALKER SEGIS HOMESTEAD, a show bull (31 A. R. O. daughters), a "PIEBE" son from a 1230-lb. (former world champion) daughter of "COUNT"
Dam, MARIE PONTIAC PRIDE, 745 lbs. butter in 365 days as a junior two-year-old, while her dam made 1016 lbs. butter as a four-year-old. A TOP-NOTCH INDIVIDUAL WITH A SPLENDID PEDIGREE. Born August 26, 1923.
Send for pedigree and photo.
A. J. LASHBROOK - Northfield, Minnesota



SERVICEABLE BULL — From A. R. O. Dam

Born April 18, 1923. Sired by Sir Walker Segis Homestead, a son of "PIEBE" from a 1230 lb. former world record daughter of "COUNT." Dam—a 22.38 lb. 2-year-old, 615 butter, 16000 lb. milk in 305 days and now making 26 lb. in 7 da. as 3-year-old. One of 29 A. R. O. daughters of King Segis Pontiac Fayne Star, the best proven son of "COUNT". Price $350.00. Write for photo and pedigree.
CARLETON COLLEGE FARMS, NORTHFIELD, MINNESOTA
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Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.
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BUFFALO CREEK FARM HOLSTEINS
Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.
ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service. GRAHAMHOLM FARM,
D. G. Tweatyman, Manager Rochester, Minnesota

30 Extra Fancy Grade HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.



A 1000-lb. Son of Prince Aaggie of Berylwood

BERYLWOOD PRINCE JOHANNA SEGIS was born February 23, 1923. He is an excellent individual that we have used in our own herd.
His dam a 1050-lb. 4-year-old is from a year record dam.
His sire, Prince Aaggie of Berylwood is a grand champion bull, all of whose 7 nearest dams have records above 1000 lbs. butter in a year.
He is guaranteed to be right. Write today for price, pedigree, etc.
BERYLWOOD STOCK FARM, J. W. Snodgrass, Mgr., Hueneme, Calif.

A YEARLY RECORD HERD

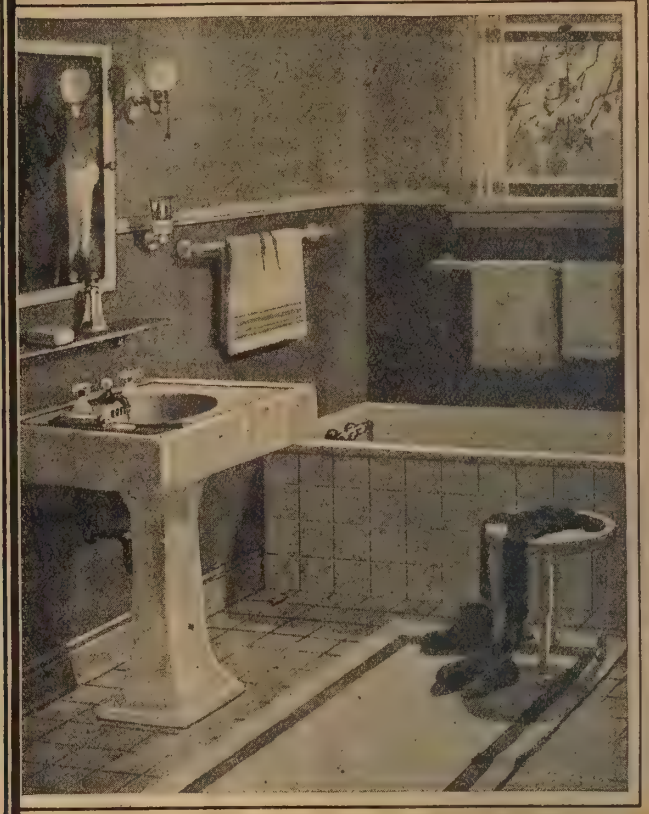
The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
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HOARD'S DAIRYMAN

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EVER FAILING OR NEVER FAILING PASTURE

Part 8.

Sweet Clover Saves The Cow's Energy

WILBER J. FRASER, University of Illinois

The dairy cow is the hardest worked animal on the farm.

On short pasture the cow must spend much of her time foraging.

On abundant pasture heavy milking cows can keep filled up by grazing only a few minutes at a time—2 or 3 hours a day.

Sweet clover pasture will save land; save labor in the busy season; save the cow's energy for use in the manufacture of milk.

THE conditions under which a good dairy cow produces a large yield of milk are: an abundant supply of suitable feed to meet her needs, and a chance to lie down in peace and comfort so that her milk factory can operate efficiently in its work of producing milk.

It is apparent to all that it is more healthful and invigorating to the cow to gather her own feed in an open pasture than to stand in a stall all summer. Sweet clover lengthens the pasture period to the utmost and gives her at least six months of abundant feed in the open, while the failing bluegrass compels her to get most of her feed in the manger if she gets feed at all.



MINIMUM "PASTURE WORK" ON JOHN R. SMITH'S FARM, CHAMPAIGN COUNTY, ILLINOIS

When on sweet clover pasture like this, cows can gobble up all they can hold in fifteen minutes, and then lie down for three hours in peace and comfort, chew their cuds, and make milk.

Foraging or Making Milk?

The cow is equipped by nature with a seven bushel bread basket—or rumen—in which she gathers her feed; then she lies down to "eat" and digest this material and manufacture it into milk. She must be at apparent rest for the greatest efficiency in this work of handling her feed. She can fill her bread basket in a very short time if plenty of food is at hand, but she needs to *concentrate for a twenty-hour day upon her factory work.* It can not be done so well while she is walking the range. The kind or rather quantity of pasture has a direct bearing on these two operations. The ever abundant sweet clover enables the cow to fill her bread basket in less than an hour, but the scanty bluegrass keeps her foraging night and day to get enough raw material to run her factory. This was clearly seen by the writer in some field observations and is familiar and reasonable to us all when we watch the cows in the pasture and consider which operation is receiving their principal time and energy—foraging or factory work.

Wasting the Cow's Energy

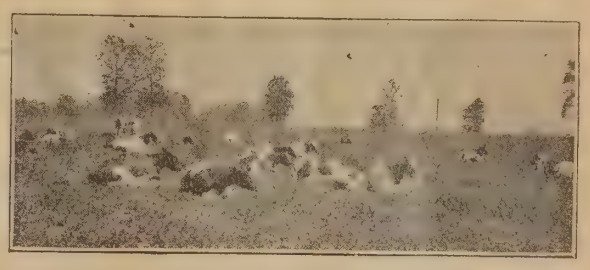
On September 13 the writer visited a fine dairy herd of high producing cows on sweet clover pasture in Central Illinois, and 15 of the 17 cows were lying down. The two that were standing were not eating, but simply chewing their cuds. Two days later, in a 50-mile auto trip through Central Illinois, 61 herds were observed on bluegrass and grain stubble pasture, none of which was sweet clover. In the entire 61 herds, but five cows were lying down. The other 732 animals were all busily engaged in the vain attempt to get sufficient feed from the scant pasture. Both these observations were made between three and five o'clock on bright afternoons when the cows would naturally be lying down if plenty of good feed were available in the pasture.

On May 11th I went out to a dairyman's farm, arriving at 6:30 a. m., and found all of his cows lying down in the pasture of sweet clover which was from eight to ten inches high. None of these cows had been out of the barn more than 40 minutes, yet they were full, lying down, and contendedly chewing their cuds.

Big Contrast in Feeding

On a ride of 180 miles from Central to Southern Illinois on May 26, 1924, not a single dairy cow was seen lying down because they had been out for several weeks on bluegrass pasture and had the grass eaten so close to the ground that they had to eat all the time—night and day—in the vain attempt to get sufficient feed. Of course, this was not through a dairy section, but most of the farmers kept a few dairy cows, and many were seen on the pastures.

In striking contrast to this, Ed. Rehling's dairy herd of 21 head was visited in Southern Illinois at 10 o'clock in the morning, May 28. The cows were all lying down. We went to the herd and they got up. We then walked away in the pasture and the cows laid down again as follows: in five minutes six cows were down; in ten minutes 15 cows were down; and in 15 minutes 18 cows were down. We then came back to the herd and every cow got up. We stood by the fence near them and in 15 minutes, 19 of the 21 head were again lying down. This is a typical illustration of what heavy milking cows on an abundant pasture will do where they can keep filled up full by grazing only a few minutes at a time.



MAXIMUM "FACTORY WORK" ON ED. REHLING'S FARM IN SOUTHERN ILLINOIS

When on sweet clover pasture, cows can lie down much of the time and save their energy for making milk.

As we entered this pasture, these cows all got up. We stood by the fence 15 minutes and 19 of the 21 head were again lying down. One cow in this herd produced 69 pounds of milk per day on sweet clover pasture without grain.

The remedy for this serious waste of the cow's time and energy in grazing the whole day over a large area of scant pasture, is to provide sweet clover which grows so abundantly and steadily that the cow can fill her bread basket with this finest of feed in a few minutes any hour during the whole summer. On good sweet clover pasture a cow can get sufficient feed for the day by eating a total time of only two to three hours, if this time is distributed at proper intervals throughout the twenty-four hours.

(Continued on page 133)



A FARMER IN GERMANY USING HIS COWS' ENERGY FOR "PLOW" WORK

This farmer did all his farm and road work with dairy cows. It took him two and a half days to plow one acre, but even this slow work reduced the milk yield of an ord[illegible], although the grain ration was decidedly increased.

THE HONGKONG DAIRY FARM

C. O. LEVINE, CHINA

HONKONG in the popular western view is "a mere dot on the China Sea". Virtually it is no more than that; actually it is the connecting link between the East and the West, a port of the greatest magnitude and one of the brightest gems adorning the diadem of the British Empire. Just a trifle over seventy years ago it was a "barren rock". Today it has close on a million inhabitants, and besides its vast mercantile interests, it is second to none in the Orient as a financial, engineering, and educational center. Long before the Dairy Farm Company came into existence, the want of a pure and adequate milk supply was acutely felt. It was the one drawback to existence on an otherwise beautiful and hospitable island.

Hongkong has no pasture lands, not even a blade of natural grass that a dairy animal could live upon. Scarred with deep ravines, strewn with the immovable wreckage of some great upheaval, a maze of pinnacle-pointed hillocks, the island offered no opportunity for the agriculturist. Blind quartz and disintegrated granite supported a plentiful but useless mountain growth, a few stunted shrubs, and here and there some clumps of distorted China pine. Such were the conditions that faced the pioneers of the Dairy Farm thirty-eight years ago. It was no land of promise they set to work upon. Yet today there exists on the southwest corner of the island what has developed into one of the big scientific dairy farming successes in the East—an institution supplying not only the dairy food requirements of Hongkong and South China, but, thanks to the extensive shipping facilities of the port, distributing its products to almost every part of the globe.

The Dairy Farm, Ice, and Cold Storage Company, Limited, Hongkong, as it is called today, owes its inception to Sir Patrick Manson, G. C. M. G., the distinguished parasitologist and first to enunciate the hypothesis that the mosquito is the host of the malarial parasite and thus an active agent in diffusing the disease. The company at present owns 1,000 cows, over 300 acres of land, with more than 100 up-to-date buildings for offices, dairies, pigs, etc., equipped with the most modern appliances, coolers, milk fillers, cold stores, etc.

By acquiring the ice manufacturing property the company now supplies the whole of the colony with ice and owns the only refrigerating stores in the colony, which stores are always well stocked with Australian frozen meats and dairy produce.

In addition to its dairying and cold storage business, the company has ham and bacon curing and meat canning branches, which are firmly established and are proving a boon to the colony and the outports of China.

Distributing the Produce

The distribution of the company's various products in the city is mostly effected by means of carriers (coolies), owing principally to the hilly nature of the country. On the lower levels of the city, however, carrier-tricycles and motor vans are used to great advantage.

The company possesses four steam launches, one motor boat, and two lighters. These are used entirely for provisioning the numerous mail liners and other steamers which call at Hongkong.

All dairy produce and fresh meat for distribution in the city are brought to the depot from the farms by closed motor vans. At the depot this is received, tested, weighed, and prepared for distribution. The company possesses up-to-date milk filling and capping machinery run by motor power and the strictest measures are enforced as to the cleanliness and the sanitary condition of the premises and the servants.

The fresh milk comes from the barns in sealed containers, is bottled in standard, wide-mouth crystal bottles, capped with fibre caps, and hermetically sealed by means of paraffin wax, thus ensuring the milk against the possibility of contamination.

The company's carriers are all housed on the company's premises in specially built quarters which, being under constant supervision, are kept in a most sanitary condition. Regulations are strictly enforced, as the company realizes the importance that men employed in the handling of food are both clean and healthy. This could not, of course, be guaranteed if the servants were allowed to live away from supervision and in the insanitary dwellings that unfortunately abound in the city.

The Central Farm on the southwest side of the island, is about four miles from the town depot. It is 500 ft. above the sea level and receives the full benefit of every breeze in summertime. So steep and rocky is the ground that despite the height above sea level being as stated, the distance direct to the shore is only about 350 yards. In the early days all foodstuffs and building materials had to be carried by coolies from the seashore to the top of the hill. The difficulty was eventually eliminated by the erection of an electrically driven overhead ropeway some 600 yards in length, a convenient connection thus being established between the commodious foodstuff stores on the farm and the wharf and go-down by the sea.

Cleanliness Emphasized

The principal dairy is the chief feature of interest on the farm. Until 1895, the only milk-collecting station consisted of a picul-stick slung from the branch of a tree for the purpose of weighing the milk. The present dairy is a modern establishment in every sense of the word, equipped with the most up-to-date appliances and incidentals.

It is imperative to take the most stringent precautions with regard to cleanliness of the native staff. Many will appreciate the constant alertness required in this connection when dealing with a class of people who often have little idea of ordinary cleanliness, let alone such cleanliness as that of which the bacteriologist takes account. The measures adopted at the dairy are thorough and, it may be said, effective. The cow boys, as well as the dairy staff, are provided with clean white clothes which are changed daily, and the men are encouraged by the provision of ample hot water to make a practice of the evening bath.

All milking and dairy utensils, bottles, etc., after being scoured three times—first in hot water with soda, secondly in lime water, and thirdly in clean water—are enclosed in a chamber and kept under steam pressure for at least one-half hour. No can is ever taken into the cow sheds until actually required for milking. On the milk being received at the dairy, it is strained and samples taken of the produce of each shed. Milk showing the slightest indication of dirty milking is not used for human consumption. That which is to be sold is run over a powerful cooler connected with a refrigerating plant, aerated, and cooled to about 40° Fahrenheit before being bottled or canned. The bottling is done by an electric bottling machine and cream is obtained by a modern electrically-driven separator. An up-to-date sterilizing plant is also installed by which milk can be either pasteurized or sterilized—truly a great boon where milk is required for children or invalids, or for a long sea voyage. Sour milk, famous for its remedial qualities in all complaints of the digestive organs, is also produced. A well equipped butter room deals with all surplus cream. After being carefully graded and pasteurized it is made into butter of either first or second grade.

Notwithstanding the special difficulties incidental to the climate of Hongkong, so far as cheesemaking is concerned, this branch of dairying also is carried on. Both Coulommier and French cheese, on the lines of Port du Salut, are produced, although the temperatures required for curing have to be regulated by artificial means. Clotted or Devonshire cream, cottage cheese, and all other dairy delicacies are produced as occasion demands.

In the laboratory or in the test room, samples of milk, cream, etc., are subjected to the severest tests, not only for butterfat but also for purity, and discovery of objectionable micro-organisms. Here a check is kept which enables the company to guard against adulteration and secure the cleanliness of the whole of the large milk from the cow shed to the customer.

The Dairy Regulations

The following are the dairy regulations:

All dairymen and milk distributors must wash their hands upon entering the dairy premises and before proceeding to their various duties; washstands, water, soap, and towels are provided for that purpose.

All employed upon the dairy premises must be clean in dress and person at all times, clean white suits being provided for them by the company.

All milking utensils to be rinsed in clean water, then:—

1. Washed in hot soda-water.
2. Washed in clean hot water.
3. Placed in steam chamber to be sterilized for half an hour.

All bottles on being returned by the milk distributors are to be subjected to the following routine:—

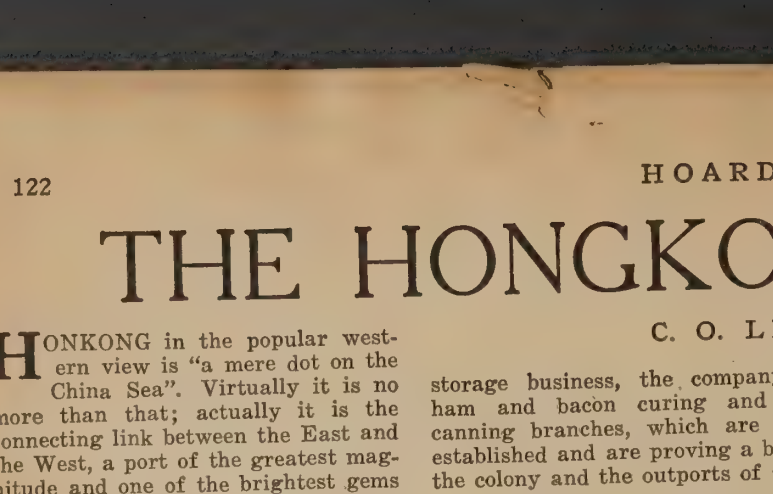
1. Rinsed in clean lukewarm water.
2. Washed in hot soda-water with revolving machine brush.
3. Washed in lime-water.
4. Washed in clean water.
5. Placed in steam chamber for one-half hour at temperature of 190 degrees F.

All ice boxes and cold stores, in addition to the usual daily washing, are to be sprayed once a week with disinfectant.

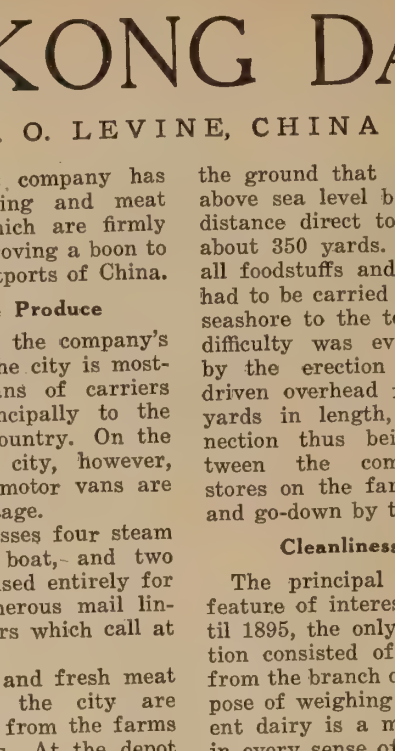
All butter churns, cheese tables, milk tables, etc., are to be scoured with lime once a week in addition to the daily washing and scalding.

All floors to be well washed at least once a day.

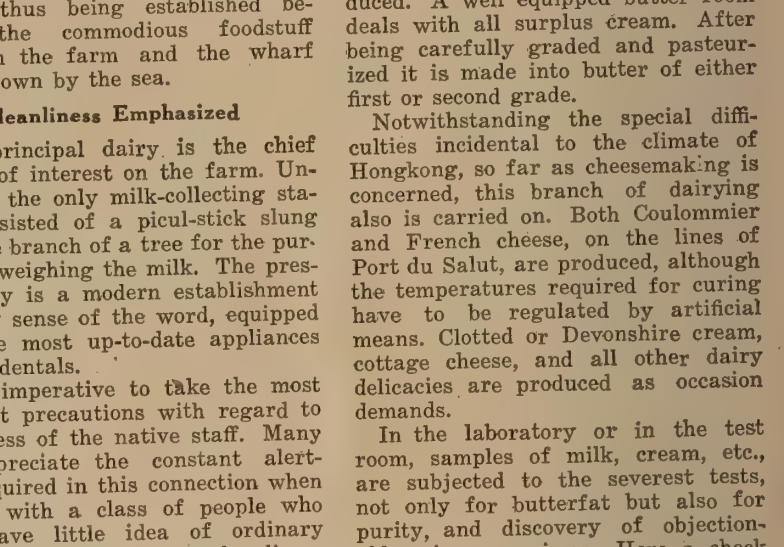
All roadways round the dairies to be



A typical bull barn of the Hongkong Dairy Farm. Insert at left shows the type of milk pail used, milk being drawn into the funnel that is equipped with a cotton strainer while the milker sits on the lid covering the pail.



The eight stone silos on the farm are built on the slope of the mountain with a road at the top for filling and with doors on the opposite side for removal of silage.



A barn full of Holstein heifers recently imported from England. Note the openings at the end. The sidewalls are open about one-third of the way down from the ceiling. There are also small semi-circular openings at the bottom in front of each cow.

sprayed with water once a day, or oftener if necessary in dry weather.

All employees are specially invited to report to the management at once any case of sickness amongst the staff.

The Cattle Sheds

After many years experimenting in building cattle sheds and outhouses of various types, the company devised a cattle shed which will be difficult to improve upon as far as the necessities of such an undertaking are concerned. It is white-ant, typhoon, and fire-proof—so much so that the directors have decided it to be unnecessary to effect insurance against any of the risks mentioned. These sheds are constructed of brick walls with reinforced concrete dome shaped roofs. A 3-ft. open space (with the exception of where the pillars carry the roof) runs along the entire length of both sides of the building, while the gables have ventilators at the top. In front of each animal a 10-inch circular opening is provided, ensuring the admission of pure air. The roof overlaps for three feet and protects the animals from both sun and rain. Surrounding each shed is a paddock into which the cattle are turned twice a day and, in favorable weather, all night for pure air and exercise.

The attendants' quarters are outside the shed on a higher story, erected over the cook-house and store. A plentiful supply of water from the public main is conveniently laid on. The sheds are washed out three times a day, once a week with disinfectant, and once a month with limewash. All manure is taken some distance from the shed and placed in the fertilizing pit. The cattle sheds, large and small, number seventy; there are also six hospitals for the cows and a slaughter house. The floor area and cubic content of air space per animal in each shed is three times that required by the local sanitary by-laws.

Importation of Cattle. Story of the Early Setbacks

The health and condition of the cattle have been dominating factors in the operations of the dairy farm, and the story of the company's early misfortune can only excite wonder that success was ever attained. Those who are in any way acquainted with the difficulties of securing a constant yield of milk all the year round from the same herd of cows, when reinforcements can only be obtained after a long sea voyage entailing much risk, must be quite amazed at the tremendous task performed by the company in the face of its succession of disheartening happenings. Infectious diseases, climatic conditions, stall feeding, the high cost of imported animals, serious loss on sales of useless animals—all have combined, with their separate anxieties and problems, to make definite progress a matter of extreme difficulty. It should be noted that fully one-third of the deaths among the stock are caused by rinderpest; also that the average useful life of a cow in the past has been but from three to four years. These facts alone create a difficult problem.

The first lot of cows imported from America in 1886 proving to be practically worthless, the company had to borrow funds from the directors to purchase other animals. Happily, these turned out to be more useful than the initial batch. After this, small shipments of cattle were obtained periodically from America until the spring of 1893. In that year the herd was insufficient to cope with the now greater call for the company's milk, and the directors decided to send the manager to Australia to purchase more stock. Sixty-three head were bought. Forty-three of the anmals were shipped on the S. S. "Airlie". The "Airlie" encountered a typhoon when crossing the China Sea between Manila and Hongkong. The heavy seas broke over the deck, smashed the stalls, and washed the cattle down the alleyways. Only twelve out of the forty-three were landed alive and so badly bruised that half of them died soon after they were got ashore. The company continued to import cattle from Australia for some years. Several batches of Ayrshires were obtained from Scotland and a number of the finest Holsteins from Holland.

All stud animals must conform to a very high standard before taking their places in the herd. The result of this grading up of the stock has been so advantageous that the price of milk has remained at the same figure since 1903, namely 30 cents, Hongkong currency, a pint; or in terms of United States currency about 14 cents a pint, although wages, foodstuffs, and general charges have generally doubled in cost and cows are now costing $300 to $500 (U. S. currency) landed in Hongkong, whereas formerly the cost was only about one-half this figure. The company is able to say that its milk is the only item of food supply in Hongkong, the price of which was not raised during the great war, and the directors take special pride in this fact as they have always felt that the company's goods should be within the scope of every individual in the colony.

Ravages of Epidemics

The ever-present possibility of serious diseases and epidemics in the company's herd has on several occasions become translated into grim and crippling reality. It was due to such causes that for many years real success eluded the grasp of the directors, despite the fairest promise and the most careful and skilled management.

In 1896, rinderpest made its first appearance at the company's farm. At that time the whole herd was confined to the limited space within the gates of Mains of Pokfulum. The manager at that time was not acquainted with the diagnosis of Asiatic rinderpest, but after some days it was found that the entire herd was in grave danger of being wiped out. The Sanitary Department took charge of the whole premises, engaging a squad of coolies to bury the dead animals. The coolies bolted and were replaced by others in great numbers, yet they were not able to keep pace with the rapid mortality, and the dead animals were being piled up in a heap in a cattle paddock in the center of the farm.

In 1894, the herd of cattle was doubled, and for the year 1895 a dividend of 10% was paid, leaving a balance of $24,000 to be carried forward. This sum, and a call of $10,000, made up the total amount that the company had with which to start business again and replace the lost herd of over 200 cows. The property known as Sassoon's had previously been bought, and in order not to put new cattle into the old sheds, this property was developed by converting the then existing outhouses into cow sheds. When they were completed, a "raid" was made on the Chinese dairies and sixty of their best milkers were purchased while seventy cows were imported from Tacoma. Trouble did not cease, however, for in the spring of 1897 rinderpest again broke out. Profiting from previous experience, segregation of the animals was commenced at once, and this had the effect of reducing the mortality to thirty head. Since 1896 rinderpest has made its appearance almost every year, and on one occasion 156 head died from it or from red water. During the next six years the company had a stiff, uphill fight between disease and the winning back of old customers. No dividends were paid, all available cash being invested in stock, buildings, land, and general improvements. A very efficient vaccine for rinderpest is now secured through the Philippine Bureau of Agriculture, and the company also makes vaccines of its own for use against rinderpest.

Foot and Mouth Disease

The first outbreak of foot and mouth disease occurred in 1899. It spread rapidly and in the course of one week was all over the farm. This disease, like rinderpest, seems to be most lively during the cool season. It became a hardy annual until quite recent years, but now seems to have entirely disappeared. All outbreaks of infectious disease are immediately reported to those responsible under the Sanitary Department, who take precautions to prevent infected milk from leaving the shed in which it is produced. The method customarily adopted is to lock up the infected shed or remove the animals to a segregation hospital. The attendants are given quarters attached to the hospital and the door is kept locked to prevent them from visiting their friends over the farm and so spreading the disease. No one is allowed to enter the shed without donning a suit of overalls kept for the purpose at the hospital, even boots are thoroughly disinfected on leaving the shed.

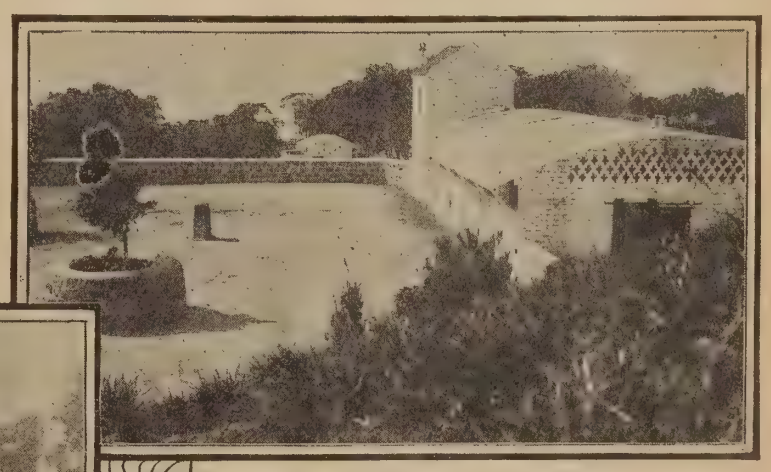
Ticks

During the early years of the history of the company, almost the whole of the stock was infected with ticks. Many animals were rendered absolutely useless and it became a strenuous fight between the cattle and the ticks for existence. The cattle won, but it took several years of war against the ticks before the company could claim their extinction in the neighborhood of the farms. For many years past not a tick has been found on the cattle. To give some idea of the great amount of labor necessitated, and the seriousness of the pest before it was got under control, it might be instanced that as many as three boys have been engaged in picking ticks off one animal for three whole days.

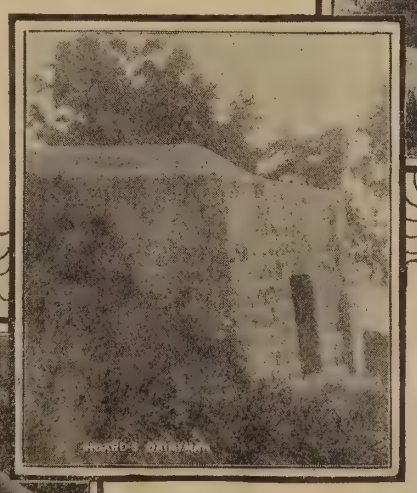
Guinea Grass Cultivation

One of the difficulties in the early days was the production of sufficient green fodder to give variation to the cattle feed. Many experiments were carried out with different plants with a view to selecting the most suitable forage to meet the conditions of the climate and soil. With intense cultivation, fair crops were obtained from cereals such as millet and maize, but it was impossible to find sufficient ground to produce in one crop per annum enough forage to meet all requirements. Experiments with alfalfa were persisted in for about twenty years without any material success. The much advertised spineless cactus, said to be the heaviest cropper per acre of anything on earth, was also a "wash out". After the foregoing experiments, attention was entirely given to Guinea grass as the most suitable plant to meet local conditions. Farmers in America would have a grievance, if, after having purchased virgin ground, cleared it

(Continued on page 141)



One of the several cow barns, all of which have brick walls and a roof of reinforced concrete. At the left is the exercise yard, back of which the upper part of a bull barn shows. While not so advised by the author, the editors imagine the forage in the foreground to be the "Guinea Grass" which seems to be the main forage reliance of the herd.



Near each cow barn and located on a side hill will be found a manure pit.



Every evening at five o'clock, if the weather is not too severe, the cows are turned outside for the night in the yards surrounding each barn. That trees are precious is indicated by the stone walls built around each tree.

NEW YORK EXPERIMENT STATION JERSEYS

Comparative Value of Bulls Used

A. C. DAHLBERG, NEW YORK

A BRIEF study of the breeding of the bulls used in the Experiment Station herd will enable one to obtain an idea of their value. The sires of the bulls were all at the head of a fine herd of pure-bred Jerseys. Their value was considered greatly in excess of those used in the Station herd. The sire of the first bull calf won the first prize in his class at the New York State Fair in 1893. He had four daughters that produced 14 pounds butter in seven days. Although the dam of this bull was never tested officially, she was said to be a heavy producing cow. The sire of the second bull used in the Station herd was from untested stock but he was an excellent individual and his pedigree included good producing animals. The dam of this calf had a Register of Merit record of 473 lbs. fat and her sire was a highly commended Island bull. The third bull was especially well bred. His sire was a well known bull of popular show and producing blood lines. His mother had a Register of Merit record of 568 lbs. fat. The sire of the fourth bull was in the Register of Merit and his dam had a record of 520 lbs. fat. Neither the dam nor the sire of the fifth bull was ever tested but the two grandams had an average record of 715 lbs. fat. Both grandsires had several high producing daughters. Likewise the dam and sire of the sixth bull were both untested but the dam was known to have produced 450 lbs. fat in twelve months and the sire was a bull of good type.

It is evident that the bulls were all of good breeding but they did not represent the best that money could have purchased. Bulls of similar production breeding can be purchased today at a price within the reach of nearly all dairymen so that from a cost basis there is little excuse for the existence of the scrub bull. When the first bulls were purchased little Register of Merit work had been done so that bulls from cows tested for production were relatively scarce. Bulls now in service at this station are from stock of established producing ability and all bulls used in the future will come from Register of Merit stock. Likewise all bull calves sold by this experiment station are from tested cows and in most cases their mothers are the fourth generation of females that have produced over 400 pounds fat on private or semi-official test.

The production records of the daughters of these bulls are more uniform than one would expect them to be. Table 1 shows the value of the bulls in getting daughters that exceed or are inferior as producers when compared with their dams upon the basis of yearly butterfat records. The table includes only the records of those cows that are ancestors of the cows in the herd in 1923, for the reason that if the progeny of a cow is not represented in the herd her breeding has been lost. The first two bulls used improved the production of the herd; the next three decreased it; and the last one increased the production records. The third, fourth, and fifth bulls had to be better bulls than the first two if they were to show an increase in production because they were bred to higher produeing cows. This illustrates the well recognized breeding principle that a good bull will increase production in a poor herd but it takes an extremely fine bull to increase production in a high producing herd. It is interesting to note that the daughters of bull No. 4 have now been eliminated from the herd but this blood line has not been lost because a few of his granddaughters remain. The fifth bull made the poorest record of all, due to two very poor producing heifers but he also got four very good producing heifers. His progeny vary more than those of any other bull.

All of the bulls purchased at a yearly cost of $31.82 produced daughters that gave an average of 350 lbs. fat per year as mature cows. For the general dairy farmer these cost prices of the bulls used and the production of their daughters are well worthy of consideration.

Herd Production Records

To the breeder of dairy cattle who is making sensational records and improving the general average of his herd and possibly of the breed as a whole, the Station herd may be somewhat disappointing. No effort has ever been made to obtain the best sires and females offered by the breed and no female has ever been handled to produce her maximum yield of milk and fat. Economical breeding and feeding practices that the dairymen producing milk or butterfat for profit could follow have been adhered to rather than those practices followed by some breeders whose chief concern is the greatest production from the best cattle regardless of cost.

Table I—Influence of Each Bull Upon Fat Production

Bull No.	Years in herd	No. of daughters (in ancestry of present herd)	Daughters' fat records Increased Lbs.	Decreased Lbs.
1	1901—1907	3	69.0	
2	1904—1912	9	37.1	
3	1908—1913	4		19.5
4	1910—1916	4		36.0
5	1913—1919	8		61.4
6	1915—1919	5	19.6	

The two foundation cows produced approximately 350 lbs. butterfat per year. Since that time production has increased and decreased, reaching its lowest point in 1921 with 337 lbs. fat and its peak of production in 1923 with 407 lbs. of fat. The low production in 1921 resulted largely from scanty feeding due to the high price of concentrates and failure to weed out a few boarder cows because of the cost of growing heifers to replace them. The reasons for the high production of 1923 are also self evident. More liberal feeding was practiced and the heifers proved to be above the customary average. In 1923 only one cow in the herd produced less than 300 lbs. butterfat.

Slow progress in increasing herd production has been due to several causes. The foundation cows were good producers which made it more difficult to obtain still higher records. The necessity of increasing the size of the pure-bred herd made it imperative that too rigid consideration could not be given to the quality of the animal. It is probable that for many years practically all profitable pure-bred females have been retained in the herd. The question of sires is of major importance in the attempt to increase the production of a herd. The author believes that very good production was obtained in the past from the Station herd especially when one considers the financial limitations in the purchasing of bull calves. Increased production above the present standard can be accomplished only if a bull capable of imparting greater production on an average in his daughters can be found and purchased or selected in a promising bull calf. It is evident to breeders that such an animal is worth many times the purchase price of bull calves used during the past. If such a bull is obtained it is probable that some of his daughters will not excel the poorest cows now in the herd. Careful selection and management must be exercised to raise the average production of the herd, no matter how good the sire may be.

Feed Records

About three years ago when the author left the Middle West and came to New York, he was astonished at the difference in feeding practices in the eastern and middle west states. In Wisconsin and Minnesota the customary recommendation is to mix some high protein feed, such as oil meal or cottonseed meal, with about 3 to 5 times its weight of farm grown grains and the resulting mixture was used as a balanced grain ration to be fed with a legume hay and corn silage. In the eastern states such recommendations are seldom heard and much talk is current about the 24% ready mixed grain ration. To one unfamiliar with the situation here it is surprising to learn of the large number of farmers feeding the 24% ready mixed grain ration. As might be expected, however, some farmers are feeding no protein concentrates whatever.

The grain ration has always been mixed in the barn and has been built upon feeds available to the average farmer, namely, corn, oats, bran, and middlings. These grains have been supplemented with high protein feeds to balance the ration. So far as the author can ascertain, the percentage of crude protein fed to the station herd has never exceeded 22 and has never been less than 17. The grain mixture has contained an average of 18 to 19% total crude protein or about 15% digestible protein. The hay has consisted quite largely of alfalfa or clover of mediocre quality with about one-quarter timothy and orchard grass. Corn silage has always been fed throughout the year because the pasture has not been ample to meet the needs of the herd. Grain has been fed in such quantities that a mature cow receives 1 pound for each 2½ pounds of milk testing 5.5 to 6.0% butterfat when calculated on the yearly basis including the dry period. The amount of grain is varied according to the condition of the animal as well as her production.

The grain mixture that has been in use with slight deviations, due to prices for the past two years, contains 18—19% of total crude protein and consists of bran, oats, corn, and linseed oil meal, mixed in approximately equal parts by weight. Oats have been a few dollars a ton higher than bran in price and since they are so much alike in their nutrient composition the quantity of oats has been slightly reduced. A limited quantity of wheat middlings, peanut meal, and gluten meal have also been fed. The feed boat holding 450 lbs. of grain has been mixed full when needed as follows: Bran, 140 lbs.; oats, 90 lbs.; corn, 100 lbs.; oil meal, 120 lbs.; salt, 3 lbs.; and steamed bone meal, 3 lbs.

This mixture is simple and easily prepared. The salt is added for palatability and the bone meal to increase the amount of minerals. They were recently added to the ration and the only noticeable effect of their addition was the increased appetite of the cows for the grain due to the salt. The grain ingredients have been purchased in one- or two-ton quantities on the open market at such a price that this mixture has varied in cost during the past two years from $31 to $41 per ton.

To many dairymen there is nothing unusual in this grain ration; to others, it is a luxurious feed; and to some dairymen it is almost an insult to the cow. Several farmers who have visited the Station herd have emphatically stated that they would not feed such a cheap, low-protein grain mixture to their cows. A grain dealer in New York State who wrote for the Station grain formula advised that he could sell nothing but the 24% mixture because his trade demanded it. Representative of the other extreme

(Continued on page 142)



THREE DAUGHTERS OF THE SAME BULL. THEY HAVE REGISTER OF MERIT RECORDS WHICH AVERAGE 540 LBS. FAT IN ONE YEAR

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Utah	Wells.-College Ward	July	G. S.	65.7	Mrs. J. A. Leatham
Ida.	Pioneer	"	G. H.	75.5	J. H. Gott
S. D.	Watertown	"	G. G.	62.2	White Hill F'm
Colo.	Mesa	"	R. H.	70.0	F. Clymer
Va.	Southside	"	R. H.	66.4	O. Moyer
"	Henrico	"	R. H.	80.6	Minihaya F'm.
"	Fairfax	"	G. H.	79.4	M. Perkins
Ia.	Hancock	"	G. G.	59.5	K. Christianson
Minn.	So. Dakota	"	G. H.	64.5	C. H. Manhart
"	Kanabec	"	R. H.	76.1	A. G. Hageman
Ill.	McHenry	"	R. H.	63.6	F. M. Barber
"	Kane Co. 3	"	R. H.	86.3	J. H. Burr
Ind.	Elkhart	"	G. H.	87.3	G. Davison
"	Culver	"	G. H.	96.1	J. Y. Rust
"	Dubois	"	G. J.	66.2	E. F. Caldmeyer
Ia.	Linn 2	"	R. H.	66.6	E. J. Gillmore
Colo.	Brighton-Denver	"	R. H.	81.1	W. F. Norris
Kans.	Os.-Lyon-Franklin	"	R. H.	57.8	C. Shade
Mo.	Jas.-Newton	"	G. J.	61.0	C. A. Kellog
Ill.	Kane 2	"	G. H.	85.7	O. E. Pritchard
Mich.	W. Allegan	"	G. J.	52.1	L. C. Morse
"	Sparta-W. Kent	"	G. J.	66.4	C. E. Moxon
"	Kalamazoo 2	"	G. H.	65.7	C. Osterhouse
"	Alp.-Leer	"	G. G.	68.4	N. Benson
"	Livingston 2	"	R. H.	71.4	Armstrong Bros.
"	Musk.-Rav.	"	G. H.	69.1	I. J. Bennett
"	Barry 1	"	R. H.	64.7	C. H. Hyde
"	E. Montcalm	"	R. H.	51.0	J. Steer
"	Montcalm	"	G. G.	69.3	W. Hansen
"	Alto Metomen	"	R. H.	61.4	A. Kuehn
"	Genesee 1	June	R. H.	76.0	W. A. Gale
Wis.	Saukville	July	G. H.	70.1	N. Jocque
"	Ced.-Grafton	"	G. H.	67.4	W. Buth
"	Tenny.-Dickey	"	G. G.	71.2	Ginter Bros.
"	Farmington	"	R. H.	85.2	W. Gruhle
"	Eagle Pt.	"	R. H.	65.1	M. T. Kelley
"	Fountain City	"	G. H.	71.3	N. Fetting
"	Leop.-Pel.-Tilleda	"	G. H.	65.7	J. Sazan
"	Mil.-Edgerton	"	R. H.	71.1	L. C. Kumlien
"	Verona	"	G. H.	65.3	A. Rhiner
"	Remy	"	R. H.	72.3	S. Kemper
"	Bloomer 1	"	G. H.	65.1	J. Wirth
"	Bruce	"	R. G.	54.8	E. F. Brainerd
"	Wr.-Greenleaf	"	G. H.	56.2	C. VanDeWalle
"	Plov.-Marathon	"	G. H.	85.1	P. A. Krubsack
"	Lancaster	"	G. J.	71.6	E. C. Govier
"	Eau Claire 1	"	G. G.	67.0	S. Meyer
"	Sheldon	"	G. G.	59.1	C. M. Elkon
"	Tomahawk	"	G. H.	70.0	A. Herman
"	Foot.-Evans.	"	R. H.	71.8	W. Lewis
"	Luck-Mill	"	G. H.	61.8	P. Jenson
"	Gr. Bay-De Pere	"	G. H.	57.5	M. Zelten
"	Lakefield	"	R. H.	66.4	F. Armbruster
"	Edgar	"	R. H.	64.4	L. Hart
"	Dunn Co. 1	"	G. H.	72.8	F. Uetz
"	Oneida Co.	"	G. J.	73.8	W. Olson
"	Iola	"	G. H.	52.7	M. Sether
"	Sp. Green	"	R. D.	72.4	T. Gorman
Calif.	Kern Co.	"	G. H.	59.2	Peacock F'm.
Ia.	Colesburg-Two Co.	"	G. H.	64.5	G. A. Kuhlman
Minn.	Pine 2	"		75.4	Weideman Bros.
"	W. Dakota	"	G. H.	62.6	Carey Bros.
Mich.	Rives.-Jack.	"	G. H.	57.9	W. S. Wood
"	St. Claire 2	"	G. H.	63.2	H. Kaatz
Colo.	Boulder	"	R. H.	63.7	N. Anderson

Association Notes by Testers

Wellsville—College Ward, Utah: The 501 cows tested in July produced an average of 791 lbs. milk, 29.98 lbs. fat. Eighty cows produced more than 40 lbs. fat. Some dairymen are mowing their pastures, a good practice to follow where land is irrigated, removing the old, unpalatable grass and giving the pasture an opportunity to renew its growth. The condensery paid 42 cents per lb. for fat.—R. Hansen.

Watertown, South Dakota: Alfalfa acreage has been increased considerably and more silos are being erected. Market milk sold for $2.00 per cwt. and retailed for 10 cents per quart.—H. E. Erickson.

Mesa Co., Colo.: The high herd shows an average of 45 lbs. fat per cow. There were 26 forty-pound cows in July compared with 21 for June. Market milk sold for $2.90 per cwt. and retailed for 12½ cents per quart.—C. H. Boyd.

Southside, Va.: Three herds were tested for T. B. and all passed clean. Pasture is short, the hay crop good, and corn promises only a mediocre yield. Market milk sold for $3.93 per cwt. and retailed for 15 cents per quart. The cheese factory paid 43 cents per lb. for fat.—C. A. Buck.

Henrico Co., Va.: The average production of the 640 cows tested was 613 lbs. milk, 24.3 lbs. fat. Three herds averaged over 30 lbs. fat. O. C. Hedrick's herd of 25 Holsteins made the highest average of 33 lbs. fat. X. Beck is leading the association in yearly herd production. In 9 months his 18 Holsteins averaged 7,834 lbs. milk, 275.7 lbs. fat. Grade A market milk sold for $4.71 per cwt.; grade B, $4.05.—S. Simpson.

Fairfax Co. No. 1, Va.: An exceptional clover crop has been harvested. All members feed grain to supplement pasture. Dry weather lowers silage prospects from late planted corn. A considerable acreage of soy beans makes the cows smile in anticipation. Virginia, Wilson, and Mammoth Yellow are the leading varieties. Fourteen acres of Mammoth Yellow outyielded 32 acres of the other two, but Virginia makes the best quality hay. Market milk sold for $3.48 per cwt; cream, $1.30—$1.45 per gallon. Milk retailed for 14 cents per quart.—C. E. Snell.

Hancock Co. No. 1, Ia.: This association started its first month with 25 members and 371 cows. Two separators were found to be faulty, one losing its owner almost 50 cents per day. The creamery paid 44 cents per lb. for fat.—H. W. Tiggeman.

South Dakota Co., Minn.: New seedings of alfalfa are in A-1 shape. Soy beans are a very good prospect. Some alfalfa cuttings from first crop are yielding 2 tons per acre. Market milk sold for $1.85 per cwt. and retailed for 11 cents per quart.—F. R. Lee.

Kanabec Co. No. 1, Minn.: Two herds were tested for T. B. and no reactors found. Twenty-two purebred sires are used, 25 members have silos, 10 feed grain, 2 milk 3 times daily, and feel that it pays for the high producing cows. The creamery paid 43—45 cents per lb. for fat.—H. E. Sutton.

Kane Co. No. 3, Ill.: Ten cows gave over 60 lbs. fat and 23 over 50 lbs. in July. Fourteen herds are under federal supervision.—W. P. Schmit.

Elkhart Co., Ind.: The average production of the 267 cows on test in July was 827 lbs. milk, 31.4 lbs. fat. Thirty-nine cows produced over 40 lbs. fat, 16 over 50 lbs., and 6 over 60 lbs. I. W. Miller had the high herd of 7 cows which averaged 45.16 lbs. fat. Market milk sold for $1.80—$3.12 per cwt. The condensery paid $1.80. Milk retailed from 8—10 cents per quart.—W. D. Campbell.

Plover—Marathon, Wis.: One new barn is being built and one was whitewashed. One member installed drinking cups. The cheese factory paid 38 cents per lb. for fat; the creamery, 39 cents.—A. G. Elbert.

Sheldon, Wis.: One more member installed drinking cups. A 10 per cent saving was made on buying scales by the dozen lots. By substituting gluten feed for ground corn and oats, a saving of $5.20 a ton on the summer ration was made. One new barn was built with modern stanchions and drinking cups. The corn crop is very short and pastures good.—G. E. Ronne.

Culver, Ind.: Several members purchased their foundation purebreds at the Indiana State Holstein sale. One herd, depending on pasture alone for June, dropped 10 lbs. fat per cow compared with the previous month. In July, by feeding a grain ration with pasture, an increase of 5 lbs. fat per cow was realized. Market milk sold for $2.10 per cwt. and retailed for 10—12 cents per quart.—W. R. Matthews.

Linn Co. No. 2, Ia.: This association completed its first year's work in which time 10 pure-bred bulls were purchased and 68 cows were found unprofitable. In July market milk sold for $2.10 per cwt. The creamery paid 43 cents per lb. for fat.—C. J. Moore.

Osage—Lyon—Franklin, Kans.: All but 4 members supplement pasture with dry feed. The second crop of alfalfa is practically all harvested. Every member feeds alfalfa. Three members use Sudan grass for pasture with satisfactory results. The condensery paid 42 cents per lb. for fat; the creamery, 35 cents. Milk retailed for 10—12 cents per quart.—J. C. Coffman.

Kane Co. No. 2, Ill.: The 542 cows tested in July averaged 763 lbs. milk, 26.3 lbs. fat. Even the best dairymen were unable to keep up production last month. Another herd was tested under federal supervision and no reactors found. Another milking machine was installed. Market milk sold for $2.50 per cwt. and retailed for 10—13 cents per quart.—W. K. Bullock.

Easton, Minn.: During July 32 cows produced 42 lbs. fat or more and 18 herds made 25 lbs. fat or over. There were 92 pound-a-day cows. The association average of 271 cows tested was 769 lbs. milk, 28.2 lbs. fat.—A. Nelson.

West Allegan, Mich.:—One member whitewashed his stable. Another sealed his stable over head. The average of the association is 556 lbs. milk, 26.58 lbs. fat. The creamery paid 38—40 cents per lb. for fat.—L. A. Wilcox.

Sparta—West Kent, Mich.: Two adjoining counties are making clean-up tuberculin tests. Wheat and oats are good but corn and beans are slow on account of an extremely wet season. Hay is exceptionally good but hard to cure. The condensery paid $1.75 per cwt. for 4 per cent milk.—L. Woodhams.

Tomahawk, Wis.: One member bought a milker. Two bad separators were repaired. All members own or use registered bulls and all have silos except three. Market milk sold for $2 per cwt. The cheese factory paid $1.40 for milk.—W. S. Schneider.

Colesburg—Two Co., Ia.: One new separator was purchased. One of the 5 cars of feed purchased on the low market has arrived and is being fed with pasture. The last of the silos purchased last spring has been erected. This association completes its year's work next month and nearly all old members have signed up for another year.—G. H. Crawford.

West Dakota Co., Minn.: Second crop alfalfa looks good. Red clover also looks fine. The association average for July of 454 cows tested was 650 lbs. milk, 25.6 lbs. fat. Fourteen herds averaged over 25 lbs. fat and 43 cows made over 40 lbs. fat. Market milk sold for $1.85 per cwt.—L. L. Hammond.

Kalamazoo No. 2, Mich.: All members but 3 have fed grain all summer. Ten members keep daily milk records. Pastures are good although production has dropped off somewhat the last two months. Market milk sold for $3.00—$3.20 per cwt. and retailed from 13—15 cents per quart.—J. E. Fleming.

Alpena—Leer, Mich.: The association average for July was 720 lbs. milk, 30.6 lbs. fat. Forty-three cows made over 40 lbs. fat, 6 over 60 lbs.—C. Jennings.

Muskegon—Ravenna, Mich.: The T. B. test has been about completed in this county. Two barns were whitewashed. Farmers are busy disinfecting. Market milk sold for $2.40 per cwt.; the condensery paid $1.60; the creamery, 45 cents per lb. for fat.—G. Rockel.

Tennyson & Dickeyville, Wis.: During July 12 cows produced over 50 lbs. fat, 56 over 40 lbs. The highest herd average of 39.3 lbs. fat was made by J. Kowalski. The cheese factory paid 37 cents per lb. for fat; the creamery, 40—41 cents.—J. Aufdermauer.

Milton—Edgerton, Wis.: Two Holstein bulls from this association are now with the Rock County show herd. One more herd passed another clean test for tuberculosis. G. W. Holliday, who supplies Guernsey milk, has a low bacteria count for this time of the year of 4,700 per c.c.—W. H. Roberts.

Verona, Wis.: One farmer is pulverizing limestone. Two silos are being built and one old one replaced. Market milk sold for $1.85 per cwt. The condensery paid $1.55; the cheese factory, $1.32.—G. W. Weihing.

Remey, Wis.: Cows are going down hill this month on account of flies and heat. Herds being grained are not falling off in production. The cheese factory paid $1.50 per cwt. for milk. Milk retailed for 10 cents per quart.—H. A. Robinson.

Bruce, Wis.: Twenty-eight members had one or more cows producing more than 40 lbs. fat in July. There were 58 quality cows; 8 of these produced more than 50 lbs. fat. Two members erected silos.—C. W. Rye.

Rives—Jackson, Mich.: Two herds were tested for tuberculosis and two reactors found. A meeting for the associations in this county is planned for August 22. Very heavy crops of alfalfa and clover are in this section. No more separators run backward. Market milk sold for $2.50 per cwt. The condensery paid $1.60 and the cheese factory $1.59 for milk.—J. Bird.

St. Clair No. 2, Mich.: One member installed a ventilating system in his dairy barn and another has a new milking machine. F. R. Watkins purchased a registered Jersey bull and is proud of the only 100 per cent purebred Jersey herd in this association.—J. N. Ingland.

Spring Green—Wyoming, Wis.: This association had a pleasant picnic at the state park the 2nd of August. Calf club calves were judged and prizes awarded. Professor Humphrey gave a talk on summer feeding.—V. H. Dani.



Over 3,000 persons attended the annual Lawrence—Barry, Missouri, Cow Testing Association meeting held at Mt. Vernon, July 24th. The meeting was held on the farm of the Missouri State Sanatorium and is considered to be the largest dairy meeting held in Missouri this year. Talks were given by W. B. Barney, fieldman for the National Holstein Association; E. M. Harmon, dairy specialist of the Missouri College of Agriculture; A. C. Oosterhuis, extension agent of the Carnation Company; and E. G. Bennett, state dairy commissioner.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $3.00 including postage.

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Coming Events

Sept. 14-20—Eastern States Exposition at Springfield, Mass.

Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.

Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.

Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition, Portland, Ore.

Marathon County, Wisconsin, has planned an exhibit at the National Dairy Show that will include three or four carloads of the various breeds of dairy cattle, a carload of boy and girl club calves, and other things connected with the dairy world. It is Wisconsin's largest county and an important dairy center. William Rogan is the county agent.

Where the Moon Drains the Land

HOARD'S DAIRYMAN:—The moon works nights in most parts of the world and, in this day of shorter hours, its value to the farmer is not generally considered great.

In the dairy district near the mouth of the Columbia river in the Pacific Northwest, however, the moon is one of the greatest allies of the dairyman. And, moreover, it works night and day in his behalf.

The dairying is conducted on an enormous tideland area which differs from what is usually considered tideland in that it never floods. Neither is it sufficiently wet to cause trouble. Much of the tideland is diked, but in some places even this is not needed. The tides are controlled by tide gates, which are in effect large valves or boxes with a hanging door which swings outward. As the tide rises the pressure of the water holds the door tightly closed. When the tide falls the recession of the water in the tidal sloughs which run here and there over the land forces the gate open and the water pours out.

Artificial pumping is as unknown as floods. The land which is thus drained by the moon's influence in sweeping the tides out lies about the city of Astoria, which is situated on the Columbia river where that stream varies from 3.5 to more than 20 miles in width, with a width opposite the city of 7 miles. Regardless of how great freshets become inland, they have no effect whatever on this enormous body of water.

The district and its characteristics of soil and climate have been likened closely to that of Holland. Dairying is the natural agricultural activity in a section where there is excellent green pasture for the cattle during the entire year. Snow rarely lies on the tidelands for more than a week all told during the winter, and the frosts are never severe enough to cut down the grass. On the other hand, the cool summers and abundance of moisture in the tidelands prevent the pasture from being burned up during the summer months.

The dairymen are finding that, if they take advantage of these weather conditions properly, it is utterly unnecessary to give the cattle feed or grain at any time of the year. With pasture the year round they are able to depend largely upon this. The pasture is supplemented with root crops and a small amount of ensilage.

Oats and vetch grow with remarkable success on the tidelands once the ground is sufficiently inoculated for the culture of the legume. This crop is extensively used for ensilage.

The turnips and rutabagas flourish and an average yield of 35 tons to the acre is common where care is taken to counter the root maggots. The dairymen have learned to do this effectively and economically by late planting. For best results the root crops are not planted until late June, under average weather conditions. A long, warm fall gives plenty of time for the roots to mature, the plants not coming up until after the egg-laying season of the maggot moth. Direct seeding is universally used for these root crops, it having been found unnecessary and poor economy to transplant the roots.

This general use of pasture, roots, and ensilage makes extensive storage barns superfluous, while the mild winters cut the cost of farm buildings by making but light shelter necessary for the animals.

Oregon. J. DEWITT GILBERT.

Bank Loans for Cows

HOARD'S DAIRYMAN:—The smallest local bank in one of the smallest counties of Georgia was first in the state to avail itself of the new $5,000,000 federal fund set aside, in the creation of the twelve Federal Intermediate Credit banks, for the use of farmers desiring to purchase live stock.

That bank was the People's Bank of Tignall, Ga., one of the smallest banks in the entire state, and the smallest bank in Wilkes County. The amount which it set aside to secure these funds of the government was $10,000—an amount entitling it to $100,000 of the government's new relief fund for dairy and live stock farmers.

But that wasn't all.

In the meantime, the secretary of the Tignall Chamber of Commerce had drawn up a form of contract between the bank and farmers desiring to start dairy herds and had signed up fifty farmers ready and "rarin' to go".

The contract was good—so good that I am going to reproduce it in full for other farmers and bankers who may want to secure a share of this new fund and yet be properly protected in the new enterprise. It reads as follows:

"I hereby authorize ——— to purchase for me ——— cows of dairy breed, at a price not to exceed ——— per head, this to include the cost of purchase, transportation, and insurance. The age of the cows is to be from two to seven years. I agree to receive and to settle for said cows on notice of arrival, and to execute a promissory note for any deferred payment secured by bill of sale on said cows, and an obligation to pay on said note with every other cream check.

"Any offspring disposed of shall be applied to this cow debt. I further agree that I will be personally responsible for the care and attention of said cows and their products.

"In consideration of ——— assisting me in the purchase of said hogs, and securing credit therefor, I agree to keep the necessary hogs and poultry to consume the surplus skimmilk from said cows.

"I further agree to cultivate and grow not less than three acres of feed crops for each dairy cow kept on the farm, the variety of these crops to be recommended by the county agent.

"If I fail to carry out this agreement through fault or negligence on my part, I agree that said ——— shall have the right to re-possess the said cows without notice. I further agree that any payment made by me on said note shall be liquidated damage to be applied as rent on said cows in the event that they are re-possessed by ———.

"It is understood that should any of the said cows die before being paid for that that portion of their cost shall revert to me."

Every contingency was thought of and carefully covered, in the contract, even to the death of the cows which were to be insured. The farmer could not lose on the proposition unless he deliberately laid down on the job—in which case the cow simply reverted to the bank to be sold to some better and more intelligent farmer.

Is it any wonder that Guy Guthridge had no trouble in signing up fifty farmers before the bill had even passed the Senate?

At the same time, the bank was adequately protected. It got 7 per cent interest on the notes signed by the farmers. It received each month 2 substantial payments on every cow secured. It secured the offspring of the stock to sell and apply on the notes. In the case of death it was protected by insurance and in the case of carelessness, the contract provided that it could take the animals away and re-sell them to some farmer who would care for them.

At present, the People's Bank has its fund of $10,000—and a drawing account of $100,000, you might say on the district Intermediate Credit Bank. Cows are now being purchased for fifty farmers in the district—the first installment of many. And it is expected that more than 1,000 dairy cows will be placed in Wilkes County in the next two years as a result of this quick action.

The South may be slow—but not in the matter of going out after more and better live stock. Her farmers have been taught the bitter lesson of the one-crop system and they are going into dairying in a way that will soon put them on their feet.

Georgia. J. H. REED.



WINIFRED HOTALING PONTIAC

A new Holstein champion for California is Winifred Hotaling Pontiac who now holds the state's highest record for butter production in ten months as a junior three-year-old. In the herd of W. J. Higdon this cow produced 21,283.1 pounds milk containing 723.67 pounds fat—equivalent to 904.5 pounds butter. Her butter record is third highest in the United States among animals of her age.—Extension Service, Holstein-Friesian Ass'n. of America.

"If you would be wealthy think of saving as well as getting."—FRANKLIN.

Judging Dates

Minnesota State Fair

Sept. 1—Brown Swiss—Judge, Earl Weaver, Iowa.

Sept. 2-3—Holsteins—Judge, T. E. Elder, Massachusetts.

Jerseys—Judge, R. S. Hulce, Wisconsin.

Guernseys—Judge, Earl Weaver, Iowa.

Sept. 4—Ayrshires—Judge, R. S. Hulce, Wisconsin.

IN THE DAY'S WORK

It's All Been Done

ELWOOD ERICKSON, NEW YORK

HOW often the feeling comes over us as we note the marvelous achievements of this wonderful age in which we live that it is no longer possible for anything new to be done. It seems as though the last word has been spoken—the last deed done.

We pick up a fine book and as we read it seems to sum up all that we have ever thought. We could not add or take away a word though we would. It bears a note of finality.

We watch an intricate machine, like a printing press, at work and it moves with an almost human intelligence. Apparently nothing more complete can be constructed.

Years ago the senior senator of Massachusetts was being replaced by a younger man by the name of Chas. Sumner. As the old gentleman was coming down the steps of the Capitol building, he met his young successor and taking him by the hand he said to him, "Young man, you are too late, all the big things have been done."

The old gentleman was wrong, all the big things have not been done. They are still being done, they are still to be done. H. G. Wells in his popular book, "Outline of History", after a survey of the great events in the history of mankind, comes to the conclusion that we are just beginning to stand on the threshold of knowledge which later generations shall enter. We are getting intimations of bigger things yet to be.

And as one reveiws the achievements of our own day this prophecy is trustworthy. Wireless and radio, telephone, and telegraph, and wonders still to come. Just recently a successful experiment was made of transmitting pictures over the wire, portending the time near at hand when we may behold the world's events as they are being enacted.

The fact of the matter is that new wonders never ceasing are being revealed to the astonished gaze of man. For life is not a static affair but energy that is constantly expressing itself in new forms and new channels. Life is full of surprises. It is dramatic, expectant.

Often where least expected, a new secret is wrested from the close grip of nature. Men stumble on her treasures. A group of Phoenician sailors many years ago carrying on their ship a cargo of saltpetre came to a sandy beach and wanted to make a fire. No stones were near at hand and some of the lumps of saltpetre were used around which the fire was built. The saltpetre melted with the heat and fused with the sand and the result was a clear mass which today we know as glass.

Locked up in that treasure house there are still those many secrets which we stumble upon that he that has a seeing eye and a hearing ear detects and puts to the use of his fellow men.

It is always stimulating to review the possibilities of life. For many of us have to live our lives in a narrow and prescribed circle of rather irksome duties which shut out the vast varieties and potentialities of living. And we often conclude with the old senator that the big things have all been done. At least it seems so to us. We have our task and it is all exclusive. But I like to think of the yet to be. No matter how dull and uninteresting the present, there is still that unknown potential future out of which there may arise the unanticipated joy.

This duty now chafes and restricts. It is dreary and dull. But as I perform it faithfully, out of my fidelity there comes without plan or procedure on my part a fine reward. It is like to a man walking around in a narrow room and suddenly his hand touches a spring which opens a door out into a garden. The room gave no token of the garden's presence just the other side of the wall but the garden was there and he finds it who day in and day out is walking his pathway of life with sturdy stride.

And that is why it is such a glorious thing just to be alive. Life's greatest gift to man is life. We live in a world of wonders which are constantly being revealed to us. And all through the journey of the years we are sustained by the enheartening thought of expectation. Every advance in science, every accomplishment in industry, in crafts, are merely presages of the something which is still waiting to be revealed.

So, we shall go through the years allotted to us on this planet dull and unmoved, when every golden minute has its riches for us? Let a man live expectantly, live on tiptoe, and though his accomplishments have been meagre his life will have been a glorious venture.

"Grow old along with me
For the best is yet to be."

Book on Co-operative Marketing

Co-operative marketing of farm products has been growing as never before in the last few years. It is a subject which is being talked about on all sides. What is the significance of this movement? What progress has been made? What are the objects in view? What are the possibilities of these developments? What are their limitations? What are the problems involved? What plans of organization have been worked out?

"Co-operative Marketing of Farm Products" by O. E. Jesness takes up these and many other vital points. The experience of the author in this field makes him exceptionally well qualified to discuss these questions. He has had intimate contact with the co-operative marketing movement, being a native of Minnesota, a state which is a stronghold of co-operative marketing, and having been connected with co-operative marketing work and investigations in the U. S. Bureau of Markets and Universities of Minnesota and Kentucky for a number of years.

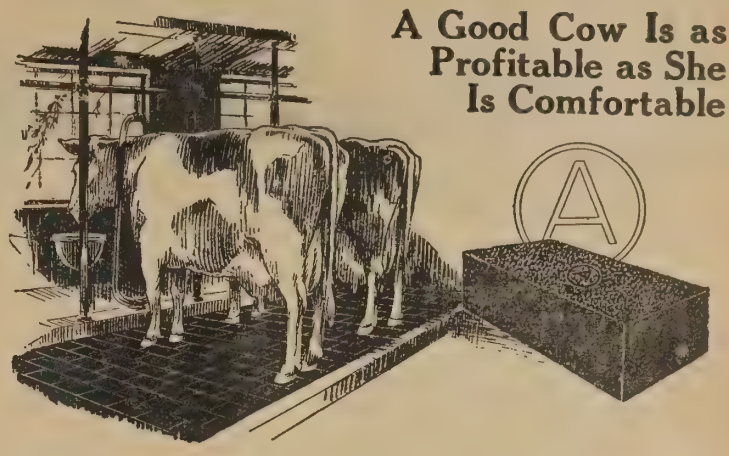
This book first takes up the development of co-operative marketing for specific commodities, such as grain, dairy products, live stock, fruits and vegetables, tobacco, cotton, wool, and poultry and eggs. Representative organizations for different commodities are described. Co-operative purchasing and general agricultural associations are also discussed. The book then takes up in detail questions of pooling, essentials for success, crop contracts, organization forms, financing, how to organize, incorporation, co-operative laws, relation to antitrust laws, possibilities of monopolies, and future prospects in the co-operative marketing field. The book also has an appendix with a wealth of material relating to co-operative marketing, including among other things the contract forms of The California Fruit Growers' Exchange, The Dairymen's League Co-operative Association, and the Burley Tobacco Growers' Co-operative Association.

The book is one of the series of "Lippincott's Farm Manuals" and sells for $2.50. It may be ordered direct from the publishers or from Hoard's Dairyman Book Department.



BUTTERCUP OF ROCKY REACH
OWNED BY LOUIS MERRYMAN OF MARYLAND

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EDITORIAL COMMENT



LAST year members of the Wisconsin cow testing associations sold 5,000 of their unprofitable cows for beef. They also sold nearly 4,000 cows, with yearly records, for dairy purposes. If all dairy farmers were culling their herds as closely as members of cow testing associations, there would be no surplus dairy products anywhere.

MANY letters received by Secretary of Agriculture Wallace suggest that some method of curing foot and mouth disease should be found. These men forget that foot and mouth disease has been a subject of much study and that the problem is not how to cure the disease but rather how to destroy the germs which cause the disease. Our government wisely decided to bury all infected and exposed animals. This, so far, has proven to be the better course to take, even though some method of curing the disease could be found.

It may be stated that in countries where they have tried to find a cure for foot and mouth disease it has escaped from the research laboratories. Notwithstanding especially equipped buildings and the exercise of every known precaution, the malady could not be prevented from jumping from one barn to another. Foot and mouth disease is very contagious and while the slaughter and burial method may seem cruel and unnecessary, it is still the best way of handling this disease.

WISCONSIN AN OBJECT LESSON

Some few weeks ago 135 bankers, farmers, editors, county agents, and business men from the states of Missouri, Oklahoma, and Kansas visited Wisconsin. They spent four days in this state and visited many dairy farms, inspected many fine herds of dairy cattle, and visited creameries, cheese factories, condenseries, etc. Upon their return home resolutions were passed by this body and we quote the following from them:

"The most outstanding condition which was evident in every county visited was the fine co-operation among the bankers, business men, county agents, college representatives, cow testers, and all others with the farmers in every activity looking to the betterment of conditions and increased prosperity. This co-operation has brought about a most prosperous and wholesome agricultural condition in Wisconsin.

"This impression corroborates what the entire country has come to understand, through published statements and personal reports, that the state of Wisconsin has suffered less depression during the past three years than any other agricultural section in the United States."

TUBERCULOSIS INFECTION

A report of the U. S. Department of Agriculture states that nearly nine-tenths of the herds of cattle in this country contain no tuberculous animals. The percentage of infection varies greatly. In ten states it exceeds 25%, or one herd in four, and in eleven states the average infection is one herd in twenty. Another encouraging thing about tuberculosis eradication is, that when tuberculin testing is properly done, a larger part of the infected animals can be eliminated upon the first test. Records on nearly 25,000 herds show that 15,000 of that number were entirely free from tuberculosis on the first tuberculin test. The second test cleaned up 4,600 additional herds, or more than four-fifths of the herds tested were free from tuberculosis on two tests made about six months apart.

As the Department of Agriculture says, when the disease is extremely deepseated, more tests are required and in some instances even eight tests have been made before all infected animals were removed, but such instances are very rare. All that is needed to free our herds from tubercular infection is careful and well informed men to apply the test and then have the owner eliminate infected animals and exercise care in keeping his premises thoroughly clean and see that his healthy animals do not have an opportunity to come in contact with diseased ones.

THE BREEDER'S OPPORTUNITY

College and club boys' judging teams which will compete at various live stock shows this fall are making preliminary trips to prominent breeders for the purpose of becoming informed on what constitutes the best breed type. Reports have come to us that few breeders show interest in this character of work and have even gone so far as not to welcome the boys who desire this information. It seems to us such breeders are not utilizing an opportunity to popularize their breed or their own herds. When a person becomes a breeder of live stock, he must not only seek information on how to mate animals, but he must also train himself to be a good business man.

A man who simply mates animals and never lets anyone know the kind of live stock he has and shows a disposition against receiving visitors is not likely to meet with the highest success. A breeder must be a good business man. To this end he must embrace every opportunity to present his breed and his cattle favorably to the public. Most breeders, however, feel complimented when visitors come and especially when young men desire to use their animals in training themselves to be capable judges. It is good advertising to have these young men visit prominent breeders and all wise breeders know this and will inconvenience themselves to assist the boys in having an opportunity to pass upon their best as well as their poorest animals.

WEALTH AND CULTURE

We too frequently narrow our conception as to what constitutes wealth and culture. We should not measure wealth only in terms of corn, milk, land, and money; or culture by luxurious surroundings. They are much broader than this. Professor Robertson of Canada, one of the outstanding leaders in agriculture, a few years ago said:

"Agriculture may be said to include not only the cultivation of the land but the culture of the people who live on land. Wealth may be defined as anything that ministers to the wants and happiness of man, and the ownership and possession of which can be transferred from one person to another. Its original sources are the sun, soil, air, water, plants, animals, and labor. It is the task of the agriculturist to so manage these agents and agencies as to obtain the largest and best service for himself and his fellows from them.

"His effort must be directed by intelligent purpose, if he is to prove successful in his vocation. The outcome of true culture is the exercise of intelligent purpose in the activities of life; and that, in his occupation, stamps the good farmer as a man of real culture. It is a false and mischievous notion which imagines that culture consists in or is shown by a life of idleness in the midst of beautiful and luxurious surroundings. That is not culture; it is corrosion of the fibres of muscular, mental, and moral life."

ORGANIZATION POWERFUL FORCE

Frank O. Lowden, president of the Holstein-Friesian Association of America, is a staunch friend of farm organizations. He has devoted himself to studying various co-operative enterprises not only in this country but in foreign lands. He has found that when farmers are properly organized they are in position to render themselves a better service than when they work individually. In a recent address he stated:

"Organization is a most powerful factor in human progress. The economist as long ago as Adam Smith found in organization the key to industrial growth. Organization means the difference between the mob and a highly organized progressive society. The psychologists tell us that in an unorganized mass of men the primal instincts have full sway. Therefore, he who appeals most strongly to the passions of the unorganized mass influences them most. Reason, justice, mercy, all the finer qualities which civilization has evolved, are swept aside by the rising tide of the primitive passions of men. The voice of the scholar, of the humanitarian, of the moralist, and of the preacher is drowned. Now, if we take this same unorganized mass and shall succeed in giving it a thorough organization, the wisest and best men within it naturally rise to positions of leadership. The result is that its conduct, instead of inclining to the plane of the lowest, will tend to rise to the level of the highest.

"Through organization only does progress come."

CO-OPERATION IN DENMARK

Co-operation among the dairy farmers in Denmark is many times referred to by leaders in co-operative effort in this country and not infrequently do they misrepresent the Danish farmers' co-operative efforts. The Danish farmer has spent more energy, effort, and time in co-operative production than he has in co-operative marketing and every student of co-operative marketing knows this is the first step to successful co-operative marketing.

The Danes have been wise in co-operating in the production of a uniform quality of butter and of the kind of bacon the market demands, for quality and uniformity of farm products are fundamental to any co-operative marketing concern. While the Danish farmer has been very successful in co-operation in reference to production, he has not equaled the American farmer in co-operative marketing and in reference to this, Dr. Tait Butler, who lately visited Denmark and editor of The Progressive Farmer, in a recent article says:

"Co-operative marketing in Denmark has been much exaggerated by our American writers on co-operation. They have nothing to compare, in my opinion, with our California fruit and egg marketing or even with our tobacco and cotton co-operative marketing. What they have done better than any other country is co-operative production. They have done wonders in co-operating to produce fresh, marketable farm products, bacon, eggs, butter, etc., but to my utter astonishment these products are largely sold in competition by individual creameries and bacon factories."

We have many times called attention to this and have pointed out that there are several co-operative marketing associations exporting butter from Denmark.

We should make use of what has been accomplished in Denmark and what has not been accomplished there in co-operative effort as an example and as an encouragement. We should follow their example of developing more co-operation in production; that is, in producing uniform high quality products. The encouragement we should gather from them is that while Denmark is one-third the size of Wisconsin, the Danes have not been able to establish a co-operative marketing company that takes care of all their products. Further, while we at times grow discouraged over our progress in co-operative marketing, yet in a country many, many times larger than Denmark, with far greater diversification, and with different classes of people to satisfy, we have made even greater progress than has Denmark in marketing farm products co-operatively.

Green, Cured, and Stored Weight of Hay

What is the difference in weight of bluegrass, mammoth clover, and alfalfa when first cut, when well cured, and when it has been stored in the mow three to six months?

Brighton, Mich. D. F. A.

It is rather difficult to estimate the cured weight of grass from its green weight, owing to the many variable factors involved. At certain seasons and in some years, clover, for instance, will carry a higher percentage of moisture than at others. The amount of moisture that evaporates will also be dependent upon weather conditions, so any estimate may be generally wide of the amount. However, we give below an estimate by Professor Boss of Minnesota of the moisture content of the green grasses mentioned at the three periods:

	Moisture content		
	When cut	When hauled	After 6 mos.
Bluegrass	65%	30%	13%
Mammoth clover	80%	35%	18%
Alfalfa	80%	35%	15%

Using the above figures the approximate weights of each ton of the grasses mentioned, at the time indicated, would be as follows:

	Weight when cut	Weight when hauled	Weight after 6 mos.
	lbs.	lbs.	lbs.
Bluegrass	2000	1000	804
Mammoth clover	2000	615	488
Alfalfa	2000	615	470

The above estimates are based on a relatively few observations and too much importance should not be attached to them. However, insofar as average conditions may be considered, these estimates are about as accurate as may be expected.

Sodium Arsenate for Weeds

In your issue of July 25 there is an article by S. R. Winters on weeds. Among other things he mentions a spray for killing dodder which is made by the U S. Smelting, Refining, and Mining Co. I would like to have some one tell me the mode of spraying, i. e., with what kind of spray, how much to use, etc.

Jackson, Tenn. R. A. H.

The chemical spray recommended by Mr. Winters is known as "Usseo". This is a commercial herbicide or plant killer of which arsenic constitutes the principal ingredient. The success of this spray will depend to a very large extent upon the per cent of sodium arsenate which it contains. Another chemical closely resembling sodium arsenate, sodium arsenite, is a more effective herbicide. Sodium arsenite has been recommended for destruction of weeds for many years. It can be purchased from druggists or from wholesale chemists. It is a compound of white arsenic and soda. If it is not available commercially it can be made up at home by anyone who desires to do so, after the following formula: caustic soda 2 lbs., or high grade concentrated lye, 3 lbs.; white arsenic (arsenic trioxide) 4 lbs. To it should be added enough water to make one gallon. The caustic soda used should be in the granulated form. This material usually comes in 5-lb. cans and if not obtainable from the chemist may be obtained from dealers in laundry supplies. If caustic soda does not happen to be available, the concentrated lye can usually be obtained from any grocer. The caustic soda and the arsenate should be mixed thoroughly in a wooden or granite receptacle. Water must be added slowly and the mixture stirred vigorously as it is apt to boil freely when the mixing takes place. Sometimes the arsenic dissolves rather slowly and it is necessary to heat the material until all of the arsenic goes into solution.

When ready for use this gallon of stock solution should be diluted to 50 gallons by the addition of water. If smaller amounts are needed they can be made up in the same proportion. The stock solution will remain in the liquid condition for a week but after this is apt to crystallize and if it is needed for a longer period should be stored in an air tight container so as to prevent crystallization. The sodium arsenite spray should be applied with a pressure sprayer equipped with a nozzle to throw a very fine mist-like spray. The success of the spray depends on bringing the herbicide into direct contact with practically all parts of the plant

The solution may be applied with a sprinkling can with fine holes but is not so effective unless applied in heavier quantities so as to be certain to reach all the plants. One gallon of the solution will spray approximately 75 square feet of space, or the 50 gallons made by using the entire gallon of stock solution will spray approximately 3,600 square feet. Best results in the application of this solution can be obtained on a somewhat cloudy day when the air contains considerable moisture but when rain is not predicted within 24 hours. If rain falls within that time it may be necessary to spray again. It must be remembered that sodium arsenite is a deadly poison and that it ought not be used where there is any possibility that live stock may feed upon the herbage that has been sprayed. Owing to the somewhat salty flavor which the sodium arsenite bears, stock are attracted to it. Extreme care should be taken to see that all forms of animal life are kept from coming into contact with it.

Wis. College of Agriculture. A. L. STONE.

Grain to Feed with Alfalfa and Silage

Kindly suggest a balanced ration, using any or all of the following feeds, to be fed with alfalfa hay and corn silage: Ground oats, ground corn and cob meal, hominy, gluten, oil meal, and bran. Will hominy replace corn and cob meal in the ration? I have a herd of grade and pure-bred Holsteins.

Burlington, Wis. C. G. K.

It would be rather difficult to make a poor ration when there is a good supply of alfalfa hay and corn silage. These two feeds supplement each other very well and good records are made when cows receive no grain with them, but this is not a practice which we would advocate under average conditions, for in most instances it pays to feed grain with silage and alfalfa.

Since the prices of the feeds were not stated, we are giving no consideration to this in suggesting the following mixture to feed with silage and alfalfa: Ground corn and cob meal, 300 lbs.; hominy, 100 lbs.; ground oats, 100 lbs.; and bran, 100 lbs. If it is desired to have the cows do exceptionally well, then we would suggest the addition to the mixture of 50 lbs. gluten feed and 50 lbs. oil meal. Feed one pound of this mixture for each 3½ lbs. of average testing milk produced. Some cows will require perhaps a little more than this. On the whole, however, it would be our suggestion to feed a little less. It will be found that some cows will make the most profitable returns when they are fed at the rate of one pound for each 4 lbs. of milk produced. Besides the meal, let each cow have all the alfalfa hay she cares to consume and about 30 lbs. of corn silage per day.

Hominy will replace corn and cob meal. It is a richer feed because the cobs are removed. The composition and feeding value of hominy is very nearly the same as that of ground corn.

Stirred Curd Cheese Not Kind to Build Industry

HOARD'S DAIRYMAN:—A great many cheesemakers in order to get their work done as soon as possible, make hand stirred cheese. If they would only follow such cheese from the time it leaves their hands until it reaches the consumer they would not make another pound of hand stirred cheese. From the commercial standpoint the making of hand stirred cheese should be discouraged because it lacks the smooth, silky body which good cheese should have and is doing more than any other factor to injure the consumption of cheese.

If we are going to increase the consumption of cheese we must give the housewife a cheese that will not go slushy and grainey in the preparing of cheese dishes as hand stirred cheese does. For this is causing the housewife to become discouraged with cheese recipes and disgusted with cheese, with the result that consumption does not increase.

It is true that some of our hand stirred varieties have merit, but the great bulk of hand stirred cheese is made by makers that desire to get through early and as a result the cheese market is ruined by this product. The loaf cheese people have conducted experiments on the curing of hand stirred cheese and their findings were that the cheese has a tendency to cure with a bitter flavor due to the high moisture present. They buy a little of the hand stirred varieties but it is most all used for resale as bulk cheese.

The great majority of our hand stirred varieties is made without starter and this is the worst kind of cheese as it will spoil before it cures. The milk is nearly sweet when set, and there is not a great deal of acid present; the maker in his hurry to be through does not develop the acid in the whey as he should with the resulting high moisture cheese. The separation of the whey from the curd goes on faster if there is a moderate amount of acid in the whey and curd, and also results in a better cheese. It is known that Wisconsin has a moisture law of 38 per cent but cheese testing as high as 40 per cent are not hard to find.

In the making of cheese, about half an hour after cutting a curd the rate of whey expulsion becomes quite slow at a temperature of 86 degrees, so in order to hasten the expulsion of whey, the vat is heated higher to a temperature of 100 degrees. Conversely at any time we wish to stop the moisture separation, this can be done by cooling the curd down to 80 degrees or below. The simplest and quickest way to do this is to cover the curd with cold water. Cold water may be applied to a granular curd as in the Colby process and to a milled curd as in the washed curd process. As the temperature goes down the curd stops releasing moisture and when cold enough actually begins to absorb moisture again. That is, the proportion of moisture which a curd can hold depends on the temperature to a considerable extent. If the cold water is left in contact with the curd long enough a very inferior soft, wet product results, called soaked curd in New York. If the cold water is used in such small proportion that the curd is not cooled too far and drained off very quickly, so that the curd has little chance to soak up extra moisture, the product is called a wash curd.

Other effects of this cold washing are a milder flavor such that some people pronounce it flat, and less tendency to gas holes in the cheese due to the cooling of the curd. This cooling system might be used to some extent whenever a curd shows gas in the vat.

Illinois. C. R. BARKER.

Value of New Feed for Dairy Cows Tested

Extensive tests of the values of various new feeds for dairy cows have been made by the United States Department of Agriculture at its experiment farm, Beltsville, Md., and the results are now made available generally in Department Bulletin 1272, just published. Details of the work were carefully planned to insure a fair test. In every case the feed tried out was compared with some standard feed as similar in composition as could be obtained, and one that might be replaced by the new feed if found satisfactory.

Fish meal, though not so palatable as cottonseed meal, was found to be worth, pound for pound, 20 to 25 per cent more than prime cottonseed meal. The cows would eat all that was offered, and no bad effects on the physical condition of the cows were noted. The flavor of the milk apparently was not affected in any way either by exposing the milk to the odor of fish meal or by feeding the cows 4 pounds of the fish meal before milking.

Peanut feed containing 27.25 per cent crude protein possesses a nutritive value not exceeding 74 per cent of prime cottonseed meal. It is thought that the protein content affords a fairly reliable guide in estimating the value of this feed in comparison with cottonseed meal.

Potato meal is worth not more than 78 per cent as much as corn meal.

The maximum value that can be assigned to velvet bean meal is 65 per cent that of cottonseed meal.

Sweet potato meal appears to be almost as valuable as corn meal.

Potato silage and corn silage were found to possess about the same feeding value.

Apple-pectin pulp compared with dried beet pulp was found to be less palatable and less efficient as a feed.

Hydrolyzed sawdust is unpalatable, contains but little nutriment, and can be fed only in small quantities. The maximum value that can be assigned to the sawdust is 14.5 per cent of that of corn meal.

Supplementing with cane molasses a ration that is already suitable is not economical. Compared with an equal value of hominy feed the molasses appears slightly less valuable. Molasses renders feeds of poor quality more palatable and induces a greater consumption of nutrients, a matter of importance in feeding exceptionally high producing cows.

Details of the experiments are contained in the bulletin, which may be had free, as long as the supply lasts, upon request of the United States Department of Agriculture, Washington, D. C.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

A Serum Needed

HOARD'S DAIRYMAN:—We are a strange people. It would seem in these times of agricultural distress that the so-called leaders have completely lost their heads. There seems to be no place for the man who advocates right principles and practices in agriculture and who believes the farmer must save himself and that agriculture must be built upon a basis similar to that which has made other industries successful. We run to Congress and ask the enactment of laws which will suppress monopolies; then we ask this same body to pass a law showing how these monopoly laws can be evaded.

A certain group of men have gone to Congress and asked for millions of dollars to open new tracts of land, and another group has gone to the same body, asking it to enact laws that will take care of our surplus agricultural products. We have the spirit of putting something across rather than laying plans which will build constructively and permanently.

Certain men think that they must do something in order to bring favorable comment from those whom they would serve. There seems to be a lack of understanding and genuine thinking. It's step on the gas, whoop her up, and put her across regardless of results. Thank goodness for the thinking farmers found everywhere who see the travesty of the present situation. They are the ones who will save agriculture, for in time the present disease for doing something will run its course. If it doesn't, perhaps there will be some department of government established for manufacturing a serum that will stop the spread of this contagion.

Minnesota JAMES BRADLEY.

Overproduction

HOARD'S DAIRYMAN:—The farmer is told by those who want to take care of the legislation for him that the old man, supply and demand, handles the job of price fixing and that no legislature, state or national, can wrest it from his grip. He is also told by those who want to spend millions more to increase production that such increase will not hurt the market of present producers. Even Senator Jones is reported as bewailing the fact that so many ranchers, who are losing their farms because of overproduction, should be appealing to congress for a moratorium, extension of time on irrigation charges, thus making it hard for the senator to convince congress that millions of dollars more should be appropriated to irrigate more land, to greatly increase the ruinous surplus of farm crops.

Again the farmer is reminded over and over that his ills are the result of a diseased imagination, that he is not really hard up, but is like a man who is told by everyone he meets that he is looking awfully bad, that he ought to put himself in a good doctor's care at once or he will surely not last long. These would-be comforters of the farmers hope to convince them that their distress is wholly imaginary and has no basis in fact. Mortgage companies that are unable to collect interest on farm loans, county treasurers that are selling more farms for taxes than was ever known before, the many banks that have closed because unable to collect loans made to farmers, abandoned farms and farms for sale at less than half former prices and no buyers at that, do not make it possible for the farmers' would-be guardians to see anything wrong with the farming business.

More than 75% of the fruit raised west of the Rocky Mountains must be shipped east of the mountains to find consumers. The freight charge on this is about $300 per acre. Almost everything that the West produces is in excess of the demand of the western consumer. The farmer on the Pacific coast must take the price for his crop that is paid in Mississippi valley and Atlantic coast markets less the cost of transportation there.

According to Professor Spillman, the Secretary of Agriculture, and the Secretary of Interior, the outstanding trouble with farming is that too much is produced. According to Senator Jones' economies, as reported in the papers, if he had an automobile factory and found that he was making more machines than he could sell at a profit he would mortgage his plant, and double its size and double the output to make the business profitable.

Washington. S. J. HARRISON.

Remedy for Farmers' Problem

HOARD'S DAIRYMAN:—We are still in search for a practical remedy for the farmers' problem and in my opinion any suggestions which may be published at this time are very much in order. In formulating any remedy for the present disparity of prices between farm produce and other articles of commerce, the following conditions must be reconciled before the solution can be adopted:

1. We are an export nation. It should not be necessary to argue this point but there are those who still think of reduced production as a possible remedy. Let me call attention to the many million acres of arable land suitable for cereal production which are still to be reclaimed in the arid West. Let me call attention to the recent railroad activities of the late James Hill in bringing these acres tributary to Pacific Coast ports on a water grade. Let me call attention to the vast sums already expended by our Dept. of Commerce and Labor on the Columbia river jetty in order that deep sea going vessels could get up to the wharves at the terminals of these railroads.

2. We are a nation irrevocably committed to paternalism. Displeasing as this term may be to the present administration, our national policy since 1896 has been one of high protection for our manufacturers. I may mention the Payne—Aldrich textile schedule under which American-made dress goods was sold in the U. S. under a 60% *ad valorem* import duty and that surpluses could be exported and sold in competition with world prices in free trade countries.

3. Well known farm machinery made in the U. S. can be purchased cheaper in Europe than at home. Our railroads have been guaranteed a profit and our labor unions have received national recognition and their right to set a price has been nationally indorsed. We are therefore a nation committed to paternalism.

4. Our foreign market is demoralized. Our foreign policy must be directed toward this question with the least possible delay.

5. We are living on the highest standard in the world.

Any solution to the farmers' problem must be reconciled to these conditions.

There are those who think we can well allow the disparity in prices to continue long enough to weed out enough producers so that the remainder will get a profit. The supporters of this view are invarably located in the older sections where the reservoir of resource is large enough to stand the strain until frontier bankruptcies bring down production to the domestic requirements. This is a narrow viewpoint and does not take in the conditions very well.

We cannot expect the farmers to organize from the bottom up in time to cope with the present emergency.

In my opinion, the government should undertake to organize the farmers from the top down the same as the farm bureau was organized and use the present agricultural department and county agents to determine the cost of production.

Minnesota. HOWARD KIMBLE.

Wants These Columns Continued

HOARD'S DAIRYMAN:—I read with considerable interest the letter of P. B. Crane of New York in the July 4th issue and with twenty-five years of dairying behind me I feel he has put the solution of the dairyman's problem in two very terse paragraphs.

Three years of cow testing work has convinced me that even more than one-third of all so-called dairy cows should go to the shambles. Another point, while only about 25 per cent of the cattle are pure-bred, I believe only about one-fourth of them should be raised for breeding purposes; then perhaps they would be good enough to raise the general standards.

Time after time I have bulls purchased at considerable expense, many times with good pedigrees, and they were actually a disgrace to the breed and to the owners. Only a few weeks ago I saw a bull that came from a prominent breeder that, considered from a type standpoint, should never be used for he can easily undo the work of years.

I hear a great many favorable comments on the O. B. B. page and trust it may be continued.

Michigan. S. P. SEXTON.

Will Farmers Protect Their Children?

HOARD'S DAIRYMAN:—A few days ago the writer saw an editorial in the Kansas City Star entitled, "Arkansas Protects Her Children". The editorial was praising Arkansas for being the first state to ratify the recently proposed child labor amendment, and the action of the legislature was being commended.

Things are not always what they seem. Instead of the act of the Arkansas legislature being commended, it should be condemned in the most scathing terms possible. Arkansas did not protect her children; she betrayed her children. Arkansas is an agricultural state. The proposed amendment gives Congress the power to regulate and prohibit the labor of children under eighteen years old. This, however, is to apply largely to city children. It is a fine thing for children on the farm to work—it develops them; but for city children—it is inhuman. We should pass another foolish constitutional amendment to prevent child labor—in the city. If this foolish amendment becomes part of the supreme law of the land, city labor of all kinds, already overpaid, from factory managers to day laborers, will demand higher wages to cover the increased cost of bringing up a family, or will limit still further the size of the family.

The main idea back of the eight-hour day, the child labor laws, laws to regulate industry, and various other foolish laws advocated by union labor, women's organizations, crackbrained sentimentalists, and demagogic politicians is—there should be one standard of living for the cities and towns; and another, and much lower standard, for the country. Such a position is untenable and will wreck this nation. The labor of women and children figures largely in the production of all farm products, especially fruit, poultry, and dairy products. This labor of women and children makes all kinds of farm products cheap to the people of the cities and towns, and I hear no objection to it. But, when the labor of women and children goes into the production of something made in the city—a fact that would reduce the price of something that the farmer buys—I hear a constitutional amendment proposed to stop it. The legislature of any rural state that ratifies this amendment betrays its children; the legislature of any state, rural or urban, which ratifies this amendment betrays the nation. Farmers of the United States, if you want to protect your children, tell your representative to vote "No" on this amendment.

Missouri. F. W. HANCOCK.

Trading Business

HOARD'S DAIRYMAN:—The firm by whom I am employed subscribes for your good publication and I read it with much interest.

In your issue of July 4th I note the suggestion of Helen S. K. Willcox under the head of "Friendly Talks for Farm Folks" that farmers and city men trade jobs for a year, so that each might know something of the other's tribulations. I fancy that the foremost trial of each would be the knowledge that at the year's end he must take back his own business and try to repair the wreckage that the other had wrought. I can picture only one thing that would surpass the dismay of a city man at turning over his business for a year to the average farmer, and that is the absolute consternation of a good farmer at turning over his well ordered farm for a year to the average business man.

I farmed for over 20 years and have been in town for the last 4, and my guess is that Mrs. (or is it Miss?) Willcox will not get an enthusiastic response to her suggestion.

Montana. F. L. WATERS.

Against Tariff on Butter

HOARD'S DAIRYMAN:—You Wisconsin dairymen are writing your congressmen for an increase on butter tariff and I am writing my congressman that as Kansas has 48,000 farms that are cowless and considering that Wisconsin dairymen are unanimously against any legislation in behalf of the Kansas farmers and wheat growers, I am very decidedly against any tariff increase on any article and that to raise the tariff on butter would be unfair class legislation presumed to raise the price and penalize the consumer. There are two sides to all questions. The best thing Wisconsin can do is to keep us out of the dairy business.

Kansas. E. E. HAZEN.

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, D. C., AUG. 12—Dr. George F. Warren of Cornell University, author of the "Warren Formula", the first and best known method of estimating costs of milk production, will be the cost expert sent by the U. S. Tariff Commission to Denmark to study and report on the cost of butter production in that country. He is one of the commission of four which has been selected to go to that country in the butter tariff inquiry.

The others will be George P. Comer, chief investigator of the U. S. Tariff Commission; Professor Juve of the U. S. Department of Agriculture, already assigned to the Tariff Commission work, and an accountant whose name has not been announced.

Figures made public this week by the U. S. Department of Commerce show that during the first six months of 1924 the imports of butter into the United States were almost double the imports for the same period in 1923. The amount imported during the January to July period, 1924, totalled 16,965,773 pounds, valued at $6,173,647, as compared with 11,241,196 pounds in January to July, 1923, valued at $3,940,732.

Denmark furnished almost half of our imports in 1923, but Argentina increased its imports into this country from 793,314 pounds for the January to July period in 1923, to 3,005,177 pounds in the same period, 1924. New Zealand shipped about the same amount of butter to this country for the two periods; that is, about three and a half million pounds the first half of 1923, and three and three-quarter million pounds the first half of 1924.

One of the points at issue relative to the fairness of the application of the flexible tariff act to the butter industry is the fact that the imports from Argentina and New Zealand are likely to increase rapidly whereas there are certain reasons for believing Danish imports may not increase, and the general belief is that southern production costs, especially those in Argentina, are much lower than Danish costs, making that competition far more difficult for American producers to meet than the Danish competition upon which the tariff report will be based.

⚜

Dr. C. W. Larson of the Dairy Bureau and Ernest Kelley, the market milk specialist of the Bureau, will represent the Bureau at the coming meeting of the National Association of Dairy, Drug, and Food Officials at Chattanooga, Tenn.

⚜

St. Paul and Minneapolis have a larger part of their milk supply brought into the city by motor truck than any other cities in the United States, in spite of the snow and hard winters. Milwaukee stands next with Cincinnati a close third and Indianapolis next. The percentages for these four cities are respectively 98, 97 plus, 97, and 91.

These results are shown in a very searching inquiry which the Bureau of Public Roads has made into the methods, costs, and results of milk hauling by truck for city milk supply. The survey is in the current issue of the bulletin of the Bureau. More trucks are used in Milwaukee than in any other city, 125 in all, but they are smaller trucks than in some other cities, and traverse comparatively shorter routes. The Twin Cities supply uses 122 trucks. Detroit has the largest fleet of glass lined tank trucks and is the only city to have this form of transportation largely used.

⚜

J. M. Kemper has been appointed administrative assistant to Dr. C. W. Larson, chief of the Dairy Bureau. Mr. Kemper was connected with the office of the fiscal supervisor of the Department before receiving this promotion. His duties will include especially the listing and control of the personal and real property of the Dairy Bureau, which starts out as a large business administration, in addition to its scientific and investigational work. The property which comes into Mr. Kemper's charge, as Dr. Larson's assistant, includes the laboratories as well as all office equipment in Washington, the farm and station at Beltsville, the laboratories and cold storage plant in Washington, the Grove City Creamery and manufacturing plant, the western office at Salt Lake City, and the equipment at the various co-operative experiments going on.

⚜

E. M. Bailey, chairman of the executive committee of the American Dairy Federation, has made arrangements to have the members of the executive committee of the federation discuss the ice cream standard, but will also take up a number of other matters of interest.



AYRSHIRE COW, VICTOR'S ROSE, AND HER SIXTEENTH CALF

Bred and owned by the Massachusetts Agricultural College. She dropped her first calf May 19, 1908, and has had one each succeeding year, giving birth to her sixteenth, which is shown here in the picture, on June 25, 1924. She is the mother of eight daughters and eight sons, the last four being females. Six of the bull calves have gone into farmers' herds as herd sires. One daughter, Victor's Primrose, is the mother of two sets of twins and has an A. R. O. record of 11,030 lbs. milk and 488.9 lbs. fat. A granddaughter, Victor's Beauty Rose, has an A. R. O. record of 16,714 lbs. milk and 716.07 lbs. fat. Victor's Rose as well as being a regular breeder has been a consistent producer.

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A Child's Questions

"I had six honest serving men,
They taught me all I knew;
Their names are What, and Why, and When,
And How, and Where, and Who."
—KIPLING.

I often think of this verse when I see parents who evade their children's questions. It is hard for us now to go back and imagine how it must feel to be a small child, knowing nothing but having an enormous curiosity almost from birth. Long before babies can speak they show this curiosity by looking at and reaching after things and as soon as they have any words at their command they try to build up for themselves a stock of information such as we older people have, by asking questions.

Most of these questions are of the type of the six honest serving men that Kipling writes about—just single words—because a child does not know how to ask questions with the intelligence that comes of experience. He hopes that simply by asking, "Why?", for instance, you will elaborate and explain the thing he wants to know.

A child's mental machinery is determined to a certain extent before he is born, provided he is to be born of certain parents. There is only one way that people can take to raise the grade of their possible children and that is to think of it before marriage and choose a mate with that in mind. Once a certain man is married to a certain woman, there is nothing that can be done to change the mental inheritance of their children except as accidents play a part. This does not mean that all their children will be alike; they will not, because some will inherit largely from one ancestor and some from another but no child has any more to draw from mentally than the sum total of his ancestors' equipment.

All this is the opinion of our best thinkers and no amount of reading of good books, for instance, by an expectant mother will make her child one whit more erudite; its only effect is to improve the mother so that she can better train the child after birth.

But if the heredity of our children is fixed so soon as we are married, their environment is not. That is where much damage done by an ill-considered match can be repaired and that gets me back to my starting point. We often think of a child's environment as just the house in which he lives or other tangible surroundings. Environment, on the contrary, is composed of all the small things that encompass him and affect him for good or bad. His parents' answers to his questions form part of his environment and do much toward shaping his later life.

Happy is the child whose parents give him sensible, truthful answers. The idea of being truthful with children naturally prompts one to wonder what to say when the inevitable day comes around that they ask about the origin of life—their own or other children's. That is surely one of the most difficult times in the rearing of a child but even that question must be met with truth, for sooner or later a lie will be found out and the parents regarded acordingly for it.

There are any number of helpful, true stories for the parent who wants to meet this question honestly. A child who is on frank and open terms with his parents will usually ask such questions long before he is capable of understanding a detailed answer. If he is then told the story of the propagation of flowers by pollen and of the simpler forms of animal life leading up to the higher he will have had a true answer that will, in practically all cases, turn his curiosity aside.

Without making it appear morbid, a parent should by all means try to see that this subject is not discussed with other children. As a farm child I attended both town and country schools and the amount of naughty talk indulged in by country children was shockingly worse than it was in town. This, I believe, is still the case though I have no check on it. A farm child's observance of animals has something to do with this and also the fact that there is less variety of interest for him.

Innocence is beautiful but hard to attain in these complex days and I am inclined to think that an ounce of decent knowledge is worth a pound of innocence as a safeguard. Sex is a strong factor in the life of a growing child but it is an entirely normal one and should always be treated in a frank, normal way.

This is, however, only one of the thousands of things that rise to the surface of a child's mind in the form of questions. The richer he becomes in knowledge of simple historical facts, stories of Nature, and the like, the less room will his mind have for unwholesome thinking.

This places a great burden on parents, of course, but children should never be brought into the world if it is not the intention of the parents to make the rearing of them their chief business. Children simply cannot be made a successful side issue; if at times they seem to turn out well under neglect, think how much better they might have been with care.

Let me tell you about the child of a family where I visited lately. The mother thought that a child's every question should be answered seriously and the conversation at dinner ran, for the most part, something like this:

"Mama, what is in that dish?"

"Those are potatoes, darling."

"Mama, what are the potatoes doing?"

"Nothing, dear, they are just in the dish.' A pause, then:

"Mama, what is in that dish?"

"Those are peas, darling."

"Mama, what are the peas doing?" and so on until it almost seemed like an endurance test.

It is not necessary to point a moral. Any intelligent parent knows an intelligent, reasonable question and answers accordingly. If any of you are interested in the stories I spoke of above on the origin of life, I shall be glad to furnish you the names of several.—LUCY THOMPSON.

Cost of Baker's Bread Compared to Home Baking

An investigation into comparative costs of the different processes connected with the transformation of wheat into bread, reveals the fact that in New York City where a loaf of bread costs eleven cents the baker gets seven. The proportion the baker gets is the same, no matter what the eventual cost of the baked loaf is.

The farmer who raises the wheat and the retailer who sells it get each one and a half cents for their share.

It is easy to see, then, how much wiser it is for the housekeeper to bake her bread herself, than it is to pay this tribute on each loaf to the bakers' union which has so increased wages that a tax is levied on every American citizen who eats baker's bread.

During the war, the wages paid were tremendously increased. The labor unions determined that they should be maintained at that figure, regardless of conditions modifying prices of other factories. It is, of course, a short-sighted policy on the part of the unions, as it curtails production of manufactured goods and leads to part time work and unemployment; but so far the unions have not seemed to realize the injustices they are perpetrating and there is no relief in sight.

Up to the present, the relief on the bread question is in the hands of the housewife, for she saves eight and a half cents out of every loaf, when bread is eleven cents, by baking it herself, and thus saving the toll levied by the baker and the retailer.

New York. ELLEN DE GRAFF.

Things Made From Milk

If you are going to have a dairy pep dinner in your community soon it would be interesting to have there a table full of things that are made from milk.

The casein of milk is very cohesive—gummy-like—and three per cent of it is used today in the manufacture of things that we would never guess had milk in them. These things include combs, fans, telephone receivers, earrings, cigarette holders, pipe stems, shoe polish, oil cloth, glue, photographic plates, beads, and the like. Probably your agricultural college could furnish you with a complete list and a display of such things would be bound to interest anyone who is interested in milk.—LUCY THOMPSON.

Hanging Up The Sheets

I have just made a discovery though it may be that the idea is not new to you. If you will hang up the sheets by the two hems they will straighten themselves out perfectly while drying. Then when you go to take them off the line there is no mussing of them while you are getting them off. Sheets that are dried smoothly can be put right back on the beds the same day and people who are not too fussy will never be the wiser.—LUCY THOMPSON.

Shocking

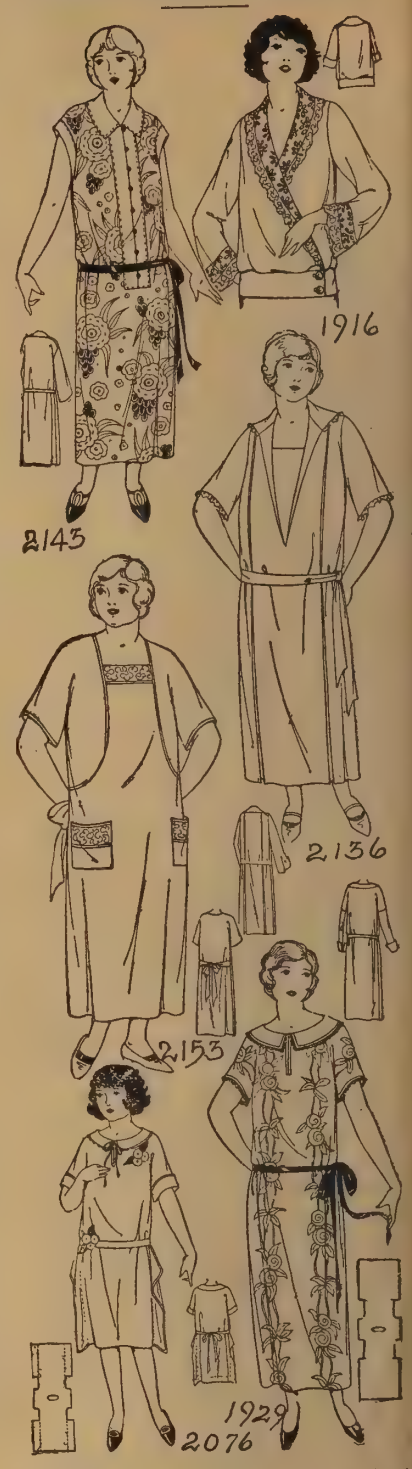
Mistress: What beautiful scallops you have on your pies, Mandy! How do you do it?

Cook: 'Deed, honey, dat ain't no trouble. I jes' uses my false teeth.—Everybody's Magazine.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Miscellaneous Fashions



No. 2143—One-Piece Summer Style. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3 yards 36-inch material with ⅞ yard 24-inch contrasting.

No. 1916—Side-Closing Overblouse. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 2¼ yards 40-inch material with 1 yard 20-inch embroidery and 2⅞ yards of lace.

No. 2153—Pretty Bungalow Dress. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3¼ yards 36-inch material with 3½ yards of binding.

No. 2136—Thinning Lines. Cut in sizes 36, 38,, 42, 42, 44, 46, and 48 inches bust measuse. Size 36 requires 3¾ yards 42-inch material.

No. 2076—One-Piece Dress for the Young Miss. See diagram for simple construction. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2¼ yards 40-inch material.

No. 1929—The accompanying diagram will convince you of the simple construction of this model. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 2⅞ yards 36-inch material with ⅝ yard 16-inch contrasting and 3 yards of ribbon.

Fashion Magazine

From the front cover of our Spring and Summer Fashion Magazine right on through the book, you will see all of the styles which will be popular during the coming season. Styles for morning and afternoon wear as well as those needed for the more formal occasions. And cute styles for the kiddies. There are dressmaking lessons for the beginner, and charming styles which can be made in a couple of hours even by one who is a novice with the needle. Also photos of the most popular Broadway, New York, actresses. So settle your dress problems by sending 10c today for our new Fashion Magazine. You'll save dollars by doing so. Address Fashion Department, Hoard's Dairyman, Fort Atkinson.

Ever Failing or Never Failing Pasture

(Continued from first page)

Mr. Rehling said his cows laid down most of the day when on good sweet clover pasture.

Cow is Hardest Worked Animal on Farm

Cows are in reality the hardest worked animals on the farm. A horse at hard labor is not using more energy than a dairy cow does when she is producing an average flow of milk for a good cow. Horses on the farm work only six days in the week, and cost accounting records show that they work only three and one-third hours a day, on the average, for the 313 working days in the year; while good dairy cows work continuously, Sundays and holidays included, and for 320 days out of the 365 each year. Yet because she spends most of her time standing around or lying down, we think she is idle if not lazy, and do not realize the great need of saving all of her energy possible to put into milk production.

In 20 herds observed June 21, there were 576 cows standing and only 17 lying down, and 12 of these were in one herd on good pasture. In the 34 herds observed June 26 and 27, there were 688 cows standing and only 9 lying down.

The fact that cows are on their feet and walking a great deal of the day while on bluegrass pasture is not often considered by dairymen, but this waste of energy must surely have a detrimental effect on the flow of milk.

Working Cows Reduces the Milk Yield

In several European countries, notably Germany, cows are used for plowing in the fields and hauling on the road. On this farm in Germany, consisting of 10 acres, where I took the accompanying picture, all the draft work was done with cows. It was, of course, slow work and required two and a half days to plow an acre. By a system of changing off, in which four cows were used, each cow was required to walk only three and three-fourths miles a day. German farmers said that working cows even at a slow pace reduces the milk flow, even though the grain portion of the ration is increased decidedly.

So Does Excessive Foraging for Feed

We would not consider the working of dairy cows practical or economical in this country. Yet we are doing just as bad or worse in making our cows do useless work many hours of the day and night on short pasture. The German farmer is at least getting some return for the energy which his cows use in the plowing, while the energy wasted by cows in this country in the vain effort to try to get sufficient feed from short pasture is a dead loss. A cow must have a certain amount of energy for making milk; when part of that energy is used for something else—whether for plowing or ranging and grubbing for bluegrass—it reduces her milk flow. This reduction in milk from waste of energy would result even if she got enough feed, which she scarcely ever does in mid-summer on bluegrass pasture.

The Threefold Saving

So the role of sweet clover pasture as an agent of economy on the dairy farm is extraordinary—saving land; saving a great deal of human labor in the busiest work season; and saving the cow's energy for use in the manufacture of milk, thus removing a distinct and very common handicap that in itself alone makes the difference between a poor and a good producer. What other inexpensive crop or new method or machine could one introduce on the dairy farm that would effect one-half of this threefold saving?

The first two are among the greatest problems of the dairy farm and the last is a real handicap in itself and is inseparably interwoven with a much greater problem—that the cow is not getting enough feed for *full* production. To effect these three elements of economy in the highest degree, in the most natural way and at the least possible cost, is the royal province of sweet clover and its every day achievement for 180 days in the year. These demonstrated facts call upon every dairyman to thoroughly try out this paramount saver and helper in economic dairy farming.

A garden is a beautiful book, writ by the fingers of God; every flower and every leaf is a letter.—DOUGLAS JERROLD.

The World's Easiest-Running Ball-Bearing Cream Separator Is Also the Easiest to Pay for

12 Full Months to Pay!

Maybe you haven't known that you could get a McCormick-Deering BALL-BEARING Primrose Cream Separator on such liberal terms. You can, and your local McCormick-Deering dealer backs up the sale with *personal service* that makes your purchase doubly worth while.

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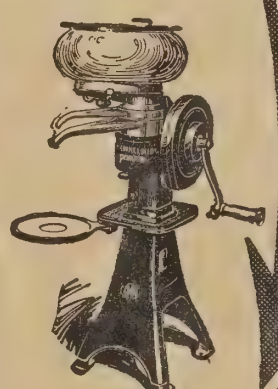
The local dealer will set up the machine on your own farm, and show you how to use it. It will be turned over to you in completely satisfactory condition. You'll like it better every day.

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Farm Leases in North Dakota

The building of an equitable farm lease is not always an easy matter. There are many and various problems to be considered if justice to the soil, the owner, and the tenant is to be secured. To a proper solution of this problem Professor A. H. Benton has made a distinct contribution in Bulletin 171 of the North Dakota Agricultural College, "Cash and Share Renting of Farms".

Professor Benton discusses the reasons for farm leases and not only gives lease farms now in use in North Dakota but offers suggestions as to leases suitable to varying conditions. These will be of distinct aid to both tenants and landlords in coming to a definite understanding of their mutual and individual responsibilities and opportunities.

The bulletin contains a unique and interesting discussion of the relative contribution of the owner and tenant to the cost of the operation of the farm as shown by various cost accounting studies. According to the author's analysis, for instance, he finds that in the Red River Valley the total cost of raising an acre of corn and putting it into the silo amounts to $31.63. He estimates that of this the owner contributes $13.17 and the tenant contributes $18.46. In Central North Dakota the expense is $22.58 an acre, of which cost the tenant contributes $13.13. In both cases the tenant contributes nearly 60% of the total cost of producing silage. Like figures are shown for other crops and for the cost of maintaining live stock. The estimates on dairy cattle show that the cost of feeding and caring for a cow amounts to $111.10 a year, the tenant's cost being 60 per cent of this.

Bulletin 171 may be secured by writing the Experiment Station, Agricultural College, North Dakota.

Fort Scott, Kans., is actively interested in the National Dairy Exposition. A special train from Bourbon County alone, as well as cows and feeds, is being planned there.

DAIRY MARKET NEWS

July Prices at Wisconsin Condenseries

(Wisconsin Department of Markets)

The following table gives the prices paid for milk delivered at Wisconsin condenseries during the month of July:

City	Prices paid to producers per 100 lbs.	Test of basis of payment	Price paid for 3.5% milk
Belleville	$1.55	3.5	$1.55
Berlin	1.75	4.	1.53
Bloomer	1.75	4.	1.53
Brooklyn	2.50	3.5	2.50
Burlington	1.80	4.	1.57½
Chilton	1.75	4.	1.53
Clinton	2.50	3.5	2.50
Columbus	1.80	3.5	1.80
Darien	2.00	4.	1.75
Delavan	1.80	4.	1.57½
Elkhorn	1.65	3.5	1.65
Genoa City	2.50	3.5	2.50
Greenville	1.80	4.	1.57½
Jefferson	1.60	3.5	1.60
Johnson Creek	1.60	3.5	1.60
Juneau	1.80	4.	1.57½
Manawa	1.80	4.	1.57½
Marshall	2.00	3.5	2.00
Mayville	1.88	4.	1.64½
Merton	1.55	3.5	1.55
Monroe	1.80	4.	1.57½
Monticello	1.80	4.	1.57½
Neillsville	1.68	4.	1.47
New London	1.80	4.	1.57½
North Prairie	1.60	3.5	1.60
Oconomowoc	1.60	3.5	1.60
Osseo	1.80	4.	1.57½
Richland Center	1.75	4.	1.53
Sawyer	1.55	3.5	1.55
Sharon	2.00	4.	1.75
Stoughton	1.90	4.	1.66¼
Sullivan	1.60	3.5	1.60
Waukesha	1.70	3.5	1.70
Watertown	1.55	3.5	1.55
West Bend	1.88	4.	1.64½
Weyauwega	1.70	4.	1.48¾
Walworth	1.80	3.5	1.80
Fox Lake	1.60	3.5	1.60
Waupun	1.60	3.5	1.60
Markesan	1.60	3.5	1.60
*Albany	1.60	3.5	1.60
*Burlington	2.01	3.5	2.01
*Denmark	1.70	3.6	1.66
*Fond du Lac	1.67	3.5	1.67
*Footville	1.60	3.5	1.60
*Green Bay	1.60	3.5	1.60
*Hartford	1.65	3.5	1.65
*Hillsboro	1.50	3.6	1.46
*Jefferson	1.50	3.5	1.50
*Lodi	1.97	4.	1.72
*Menomonie	1.97	4.	1.72
*New Glarus	1.60	3.5	1.60
*Oostburg	1.70	3.6	1.66
*Racine	2.44	3.5	2.44
*Reedsburg	1.97	4.	1.72
*Sparta	2.00	4.	1.75
*Valders	1.86	4.	1.63

*Price for June.

Butter Markets

(Report by U. S. Dept. of Agriculture)

Butter markets during week ending Aug. 9th were supported by shortage of best grades for which demand was good. Storage movement was very heavy despite large surplus over last year. Production is showing seasonal decrease, but still heavy. Hot weather is affecting quality.

The average wholesale prices on 92-score butter for the week ending Aug. 9, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Aug. 9 1924	Aug. 2 1924	Aug. 9 1923
	Cts.	Cts.	Cts.
New York	37.8	37.9	43.5
Chicago	35.9	36.1	42.1
Philadelphia	38.5	38.8	44.3
Boston	37.6	38.2	43.5
San Francisco	39.6	38.3	44.1

The receipts of butter at these markets were 16,690,574 lbs. for the week as compared with 19,356,666 lbs. for last week and 12,629,872 lbs. a year ago.

July Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers for 3.5% milk delivered at factories during July is based on reports made by condensed and evaporated milk firms.

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$1.67	$1.67
Middle Atlantic*	8	1.50—2.75	2.12
South Atlantic	1	2.32	2.32
E. No. Central	61	1.46—2.30	1.61
W. No. Central	3	1.58—1.65	1.61
North Western	13	1.44—1.64	1.58
South Western	9	1.53—1.75	1.60
United States	96	1.44—2.75	1.66

*Sixty-eight additional factories reported prices to be based in part on the current month's wholesale butter quotations. Twenty-three factories reported prices not determined, and nine reported plants closed.

The thirteen factories in the Middle Atlantic Section not included in the previous report averaged $1.67 per cwt. for 3.5% milk in the 201—250-mile freight zone from New York City.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for June:

	Range	Ave.
Condensed, per case	$5.20— 6.70	$5.95
Condensed, per cwt.	6.90—11.50	9.99
Evaporated, per case	3.35— 4.85	3.97
Evaporated, per cwt.	7.50—12.00	8.74
Condensed skim, per cwt.	4.50— 7.00	6.04
Evaporated skim, per cwt.	2.00— 7.60	4.01

June Powdered Milk

(Report by U. S. Dept. of Agriculture)

Producers supplying powdered milk plants during June received from $1.70 to $2.00 a hundred for 3.5% milk. These plants pay from 15c to 30c a hundred for skimmilk and from 9c to 18c a hundred for buttermilk.

During June powdered whole milk sold for 56c to 60c per pound as case goods and for 24c to 28c per pound in barrels. Powdered skimmilk sold for 40c to 44c per pound as case goods and for 6c to 12c a pound in barrels. Dried buttermilk sold for 3½ to 11c a pound in barrels.

Philadelphia Milk Prices

The Interstate Milk Producers' Association announces that the August price for milk will be $2.94 a hundred f. o. b. Philadelphia and $2.19 a hundred at the 210-mile zone. This applies to the basic quantity. For July surplus, producers will receive $2.09 per hundred f. o. b. Philadelphia and $1.51 per hundred at the 210-mile zone. These prices are based on milk testing 3 per cent fat with a differential of 2 cents for each half point of test.

Carload Prices of Hay, Straw, and Feed, Aug. 9, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	31.50	31.00	.....	20.00	.....	25.00	26.00	22.50	18.00	27.50	17.50	20.50	....	15.00	
No. 1 Clover, mixed	30.50	.....	.....	17.50	.....	.....	.....	.....	15.50	.....	15.50	....	.....	14.50	.....
No. 1 Clover	.....	.....	.....	.....	.....	.....	.....	.....	17.50	14.50	....	16.00	.....	16.00	.....
No. 1 Alfalfa	.....	30.00	.....	.....		30.00	29.00	25.00	24.00	22.50	18.00	....	17.00	19.00	26.00
Standard Alfalfa		26.00		.....		28.00	27.00	13.00	.....	18.00	17.00	24.00	14.00	17.75	25.00
No. 2 Alfalfa	.....	25.00	.....	.....	.....	.....	23.00	20.00	22.00	16.00	15.00	.....	13.00	15.00	24.00
Oat Straw	13.00	14.00	.....	.....	.....	.....	.....	.....	10.00	12.00	8.00	.....	8.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	30.75	.....	30.00	29.50	30.75	.....	.....	.....	28.50	25.50	22.50	.....			.....
Soft Winter	31.75	.....	33.00	31.50	32.75	.....	.....	26.50	29.00	.....	23.50	25.00		22.00	39.00
Hard Winter	.....	.....	32.00	29.50	...	.....	.....	26.00	28.50	25.50		24.00	22.00	22.00	.....
Wheat Middlings	.....	.....				.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring (Standard)	33.50	....	32.50	31.50	32.25	.....	.....	.....	32.00	28.00	25.00	.....	.....	28.00	45.00
Soft Winter	.....	.....	37.00	36.00	33.00	.....		.....	34.00	.....		31.00		28.00	.....
Hard Winter	.....	.....		35.50	.....	...	.....	.....	34.00	.....	.....	29.75	28.50	26.00	.....
Wheat Millrun	...	.....	34.00	.....	.....	.....	.....	.....	.....	.....	24.50	.....	.....	.....	38.00
Rye Middlings	.....	.....	.....	.....	.....	.....	.....	.....	.....	26.75	23.50		.....	.....	.....
High Protein Meals	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Linseed	49.25		49.20	49.20	.....	.....			48.00	46.00	43.50	47.50	48.75	48.50	46.00
Cottonseed (41%)	53.00	.....	51.50	50.00	.....	.....	.....	44.50	48.50	48.00	49.00	46.00	.....	.....	.....
Cottonseed (36%)	50.00	.....	48.00	47.00	.....	.....	.....	40.50	44.50	46.00	47.00	43.50	.....	.....	.....
Tankage (60%)	....		.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	55.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	31.50	.....	.....	27.25	28.00	27.00	26.00	25.75	25.50	22.00	33.00
Gluten feed	44.55	.....	43.50	42.30	44.90	.....	.....	.....	40.30	37.40	.....	.....	.....	.....	.....
Hominy feed (white)	47.00	.....	45.50	.....	44.25	.....	.....	.....	45.00	42.00	40.50	40.50	40.00	.....	.....
Hominy feed (y'llow)	45.50	.....	45.00	.....	43.75	.....	.....	.....	45.00	42.00	.....	.....	40.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	41.00	42.50	40.00	.....	.....	.....	48.00
Dried Beet pulp	.....	.....	.....	.....	40.00	.....	.....	.....	.....	43.50	39.00	.....	36.00	.....	37.00

Cheese Markets

(Report by U. S. Dept. of Agriculture)

Cheese markets were firm under influence of active demand during week of Aug. 9. Some interest in storing although general tendency is to hold off for September make which is expected to be of better quality.

The average wholesale prices on American cheese, style Twins, for the week ending Aug. 9, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Aug. 9 1924	Aug. 2 1924	Aug. 9 1923
	Cts.	Cts.	Cts.
New York	21.1	20.9	24.8
Chicago	19.2	18.8	22.1
Boston	21.2	21.2	25.2
San Francisco	19.0	18.4	25.7
Wisconsin Boards	18.8	18.3	22.0

The receipts of cheese at these markets were 4,355,438 lbs. for the week as compared with 5,079,940 lbs. last week and 4,755,580 lbs. a year ago.

Wisconsin June Butter

(Wisconsin Department of Markets)

The following is an average report of the operations of 147 co-operative creameries in Wisconsin for the month of June, 1924:

No. of creameries	Price paid for fat	Ave. price rec'd. for butter	Ave. overrun	Ave. amt. fat rec'd.
	cts.	cts.	%	lbs.
4	47	40.3	22.9	47081
12	46	39.4	23.4	64638
28	45	39.4	23.6	39176
28	44	38.8	21.9	50238
25	43	38.8	23.6	34506
22	42	38.6	22.	28915
9	41	38.4	22.3	29549
8	40	37.3	21.9	22545
8	39	37.6	23.4	17903
2	38	37.7	20.3	13113
1	37	37.	24.3	7044
147				32246

Wisconsin Milk Prices

Following are the monthly average prices received for milk by Wisconsin farmers for the first six months of the current year, as reported by the Wisconsin Department of Agriculture: January, $2.26; February, $2.15; March, $2.02; April, $1.72; May, $1.59; June, $1.61.

CHICAGO, Aug. 18—Butter—Receipts, 12,256 pkgs.; creamery, extras, 36¾c; standards, 36c; dairy, firsts, 34@35c; seconds, 32@33c.

Eggs—Receipts, 18,303 cases; ordinary, 28@28½c; firsts, 29@31c.

Cheese—Twins, 19c; Young Americas, 20½c.

FOND DU LAC, Wis., Aug. 16—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 19¼c; single Daisies, 19½c; Longhorns, 19½c; square prints, 19¾c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Aug. 16: Single Daisies, 17½c. On Farmers' Call Board Aug. 16: Twins, 17½c; single Daisies, 18c; Longhorns, 18c; square prints, 18¾c.

MILWAUKEE, Aug. 18—Butter—Creamery, extra, tubs, 36½c; standards, 35½c; extra firsts, tubs, 34@35c; firsts, 32@33c; seconds, 30@31c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 30@30½c; ordinary firsts (standard cases), 29@29½c; miscellaneous lots, shippers' cases returned, candled, 26@27c; seconds, dirties, 21@21½c; checks, 21@21½c.

Cheese—American full cream, Twins, 18@18½c; Young Americas, 19@19½c; Longhorns, 19@19½c; Daisies, single, 18½@19c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 16@16½c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

NEW YORK, Aug. 18—Cheese—Quiet; state milk common to specials, 15@21½c; skims, common to specials, 11@12c; lower grades, 4@10c.

Butter—Quiet; receipts, 6,520 pkgs.; creamery, extras, 38c; special market, 38½@39c.

Eggs—Firmer; receipts, 7,685 cases; nearby white, fancy, uncandled, 53@54c; nearby brown and mixed, 37@47c; fresh first to extra, 32@40c; Pacific coast, 37@47c; western whites, first to extra, 34@52c; nearby state white, 36@52c.

National Dairy Clinic

The National Dairy Exposition annually offers a clinic in dairy agriculture; it visualizes all human progress in the industry and points the way to prosperity. The men of the industry should get together within its gates to pause and compare and set forth refreshed for a year's effort for betterment of themselves and their part in the big work.

W. E. SKINNER.

Friendly Talks for Farm Folks

Mrs. Josiah Sanford has consumed so much rich patent medicine throughout her lifetime that the very thought of a drink of plain, cool water makes her sick. And yet Mrs. Sanford is an earnest W. C. T. U. worker and would be horrified if anyone intimated that she was an addict of strong drink and raging.

Again, Harlow Stebbins takes almost several tons of aspirin and other headache tablets in a year, while he gravely deplores the terrible traffic in drugs and opiates of which every daily paper is full. Some folks dearly love to keep their right hand from knowing what their left is doing.

There have been many public men in office who are the country's ideals until the folks composing the country learn of the deals such gentry manage to involve themselves in at public expense.

Our idea of helping the farmer along is to let this pestiferous weed known as "bindweed" live and flourish on the land, then see how many crops are grown annually in competition with it. The few that survived would undoubtedly bring prices calculated to make the most despairing agriculturist break into tears of joy and astonishment.

The Literary Digest copies an extract from a farmer's wife's letter recently appearing in the American Agriculturist. The letter speaks for itself, but will hardly be news to many of the sex who may peruse this column: "In the thirty years of my married life I have served 235,425 meals, made 33,190 loaves of bread, 5,930 cakes, and 7,960 pies. I have canned 1,550 cans of fruit, raised 7,660 chicks, churned 5,450 pounds of butter, put in 36,461 hours at sweeping, washing, and scrubbing. I estimate the worth of my labor conservatively at $115,485.50, none of which I have ever collected. But I still love my husband and children and wouldn't mind starting in all over again for them."

Few men—or women—will ever again experience a thrill equal to the one they knew as the steering wheel was grasped and the foot fed the throttle of the new car—after the salesman had pronounced them fit to drive all, all alone.

You can only harvest potatoes in the fall, the wheat has its own time for getting ripe, corn comes but once a year, fruit ripens invariably in autumn—but good old bossy brings home the bacon every month in the year.

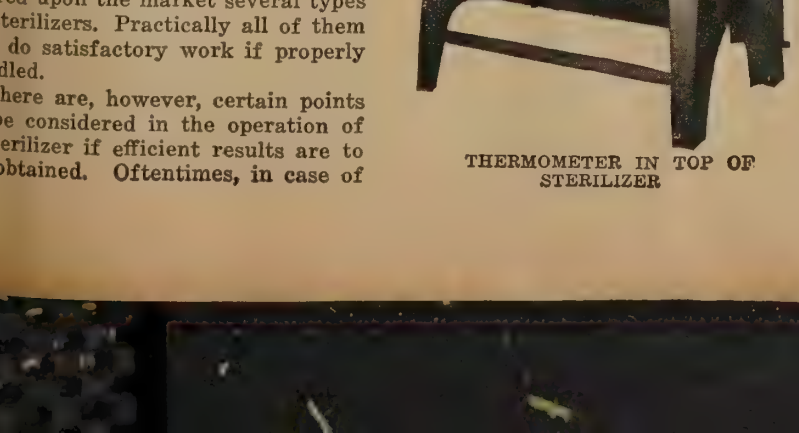
The story is told of one farm woman who became so wed to her faithful Ford that when she wasn't steering it on the road, she had it backed into the kitchen where she did the washing, ironing, churning, cooking, and baking all on and with the aid of the dutiful engine. But we can't help but wonder, if, at twilight, after she had heard its prayers and given it its usual supper of several quarts of oil and gallons of gas, she tucked it up cosily at night in the garage or left it all alone out under the apple tree to dream of ghosts and car robbers. Let us hope that this particular Ford owner was consistent to the end and did not subject her patient friend to any such inhuman treatment.

New York. HELEN S. K. WILLCOX.

New Dairy Husbandry Building at University of Maryland

"Maryland, my Maryland" has long been famous for her herds of pure-bred dairy cattle. Her good cows are found scattered all through the United States and occupying prominent places when it comes to production records. The type of Maryland dairy cattle are unsurpassed as shown by the many winnings at state and national contests.

The past five years have seen much progress in dairy lines in Maryland. Not only have pure-bred dairy cattle of high production increased, but the men who milk cows have become organized into successful marketing groups. In addition there has been an increase in the tonnage of legume hays grown and more interest taken in pasture improvement. The industry generally has come to a realization that its future prosperity depends upon ability to produce high quality dairy cattle and dairy products so economically that they can be sold at a profit in competition.



NEW DAIRY HUSBANDRY BUILDING AT UNIVERSITY OF MARYLAND

As a result of the progress in the dairy industry within the state, a new dairy husbandry building has been erected at College Park and is now being occupied.

Enrollment among those majoring in dairy husbandry at the present time in the University of Maryland compares most favorably with that of the great dairy states. The care, feeding, and management of dairy cattle, the production of high grade dairy products and manufacture and marketing of the same will be featured in the new building.

J. A. Gamble, who was born at Wauzeka, Wisconsin, October 10th, 1882, and who was with the United States Dairy Division for five years where he turned out several bulletins of interest to the industry, has been head of the Dairy Husbandry Department of Maryland for the past six years.

Dairy Sterilizers

Sterilization today plays a very important part in the production of clean and wholesome dairy products. It has been found that the heating and holding of dairy utensils, such as milk cans, coolers, milking machine units, strainer cloths, etc., at a temperature of 212° or more for 20 minutes will very effectually reduce the bacteria count and kill disease germs.

The California law now requires the sterilization of dairy utensils. To meet this demand there have appeared upon the market several types of sterilizers. Practically all of them will do satisfactory work if properly handled.

There are, however, certain points to be considered in the operation of the sterilizer if efficient results are to be obtained. Oftentimes, in case of poor sterilization, the difficulty may be traced to the fact that the sterilizing temperature has not been maintained in the sterilizer for the required length of time. Sometimes due to a poorly operating oil burner, a longer time than usual is taken for heating up. The collection of soot upon the bottom of the sterilizer may also cause slow heating. The engineer cleans out the flues of his boiler regularly. The same should be done with your sterilizer. The engineer also has a guage to tell him when his steam pressure is right; in the same way, a dairyman should have a thermometer to tell him when his temperature is right.

In the type of sterilizer which consists of a steam chamber into which steam is furnished from a boiler, it must not be forgotten that it takes considerable time for the sterilizer and contents to heat up after the steam is turned on before sterilizing actually takes place. Therefore, the time of sterilization must not be counted from the moment that steam is turned on but from the time that the contents actually attain sterilization temperature.

From a number of tests conducted by the University of California upon the latter type of sterilizer, results show that when steam was supplied at twenty pounds per square inch pressure to a 4'x4'x5' sterilizer through a three-fourths inch pipe, practically fifteen minutes were required for the temperature of the sterilizer to reach 212° F. This means that utensils held for twenty minutes after the steam was turned on would have been sterilized for only about five minutes or fifteen minutes short.

A thermometer placed in a hole in the top of the sterilizer so that its sensitive bulb extends through into the inside, will show when the proper temperature is reached. It should be used occasionally to check up on what is taking place inside the sterilizer.

A good chemical thermometer costing about $1.50 and reading as high as 220° or 250° F., depending upon the temperature attained in your sterilizer, is the proper instrument to use. It may be attached by pushing it half way through a large cork which will prevent it dropping entirely through the hole in the top of the sterilizer.



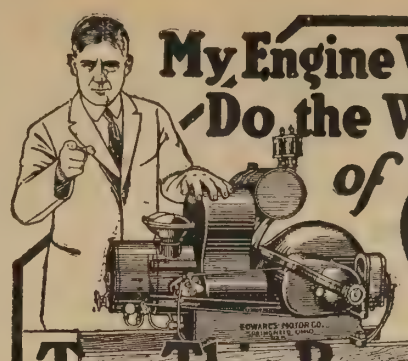
THERMOMETER IN TOP OF STERILIZER

Another point of operation is that of opening up the sterilizer after each sterilization and if possible removing the equipment. If this is done, the moisture will be evaporated from the hot surface of the utensils, leaving a dry surface which will remain sterile and at the same time not rust. —A. W. FARRALL, California College of Agriculture.

Soy Bean Growers

The National Soy Bean Growers' Association will hold a meeting at the Iowa Experiment Station at Ames on August 30. A good program has been prepared for discussions by men from various states interested in the production of soy beans. There will also be an inspection of the various experimental plots at the Iowa Station. It is anticipated that this meeting will draw a large attendance.

Says Sam: Good cars and bad, strong men and weak, run about even down hill. It's the up grade that's the test.



My Engine Will Do the Work of 6

"I set out to build a farm engine that would have every feature the farmer wanted and none he didn't want. It has now been on the market six years. Thousands of satisfied users tell me I've succeeded. I'm proud to have this engine bear my name."
—A. Y. EDWARDS

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There is no other farm engine like it. Simple in construction and easy to operate. It is only one engine, yet it takes the place of six engines. It will give from 1½ to 6 H. P., yet it is so light that two men can carry it easily. Set it anywhere and put it to work.

Change Power as Needed

It is a 6 H. P. when you need 6, or 1½ H. P. when you need only 1½, or any power in between. Fuel consumption in proportion to power used and remarkably low at all times. Adjustment from one power to another is instantaneous.

Burns Kerosene

Operates with kerosene or gasoline. Easy starting, no cranking. The greatest gas engine value on the market. And you can prove all of these statements to your own satisfaction.

What Users Say

Ivan L. Blake, of Hannibal, New York, says: "Only engine economical for all jobs. I run a 28-inch cord wood saw, a 24-inch rip saw, a washer, a pump, and a grinder, and it sure runs them fine. It has perfect running balance, and it sets quiet anywhere."

Clarence Rutledge, of Manitoulan Island, Ontario, says: "Have given my Edwards four years' steady work and like it fine. It uses very little fuel. I run a 28-inch cord wood saw, also a rip saw, 8-inch grinder, ensilage cutter, line shaft for shop, churn, washer, separator and pump. Have had ten other engines and the Edwards beats them all."

Frank Foell, of Cologne, New Jersey, says: "It's a great pleasure to own an Edwards engine. I run a wood saw, cement mixer, threshing machine, etc. Do work for my neighbors. Easy to move around and easy to run. I would not have any other."

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Now—I want to prove my claims to you. I want to send you an Edwards Engine for absolutely free trial. Just write your name and address on coupon and mail. I will send at once complete details about my farm engine and about my free trial offer. No cost or obligation. Mail coupon now.

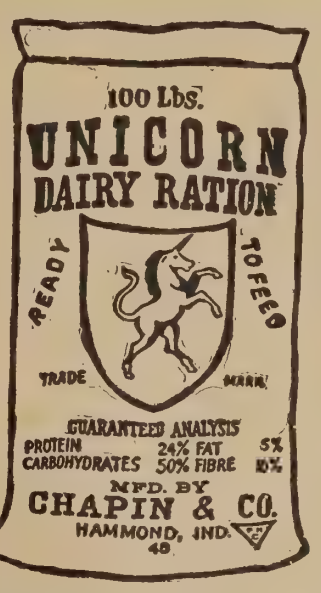
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Without cost or obligation, send me complete description of your engine, also details of your free trial offer.

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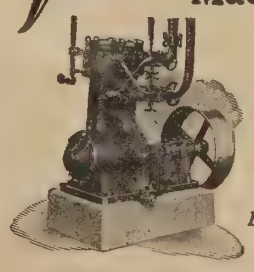
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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

My Toggenburg Goats

Lester Alger Johnson, Illinois

When I started my goat project, father bought me two Toggenburg does and one kid for $100. The plan was for me to pay him back when I earned the money. I milked the two does and sold the milk daily for 50c a quart. The money I received for the milk much more than paid for the feed and what was over went toward paying for the goats.

During the summer I sold the kid for $25. One of the old goats presented me with two doe kids on the 21st of November. This was fine luck, I tell you. When these two kids



YOU CAN'T GET LESTER'S GOAT NOW

were one month old, I sold them for $17.50 each. This was cheap, but I needed the milk of the mother more than I needed the kids.

I have seen it stated in print that it costs about 10c a day to feed one of these Lilliputian cows its necessary feed of grain and hay. Bran and oil meal must also be fed. Of course, during grazing season, grass takes the place of hay in the goat's bill of fare. In my project it did not cost much to feed them during the summer. I kept them in the pasture all day and the grain they needed amounted to about 6 cents a day a goat. At night I kept them in the barn where my father keeps his goats. This barn space I paid for by cleaning the entire barn and milking his goats.

Here are a few things I have learned about goats. You can raise them on a small farm, or even a back yard, because they are small and take up very little room. A goat is a very clean animal and will not eat anything that is not clean. I have often heard it said that the milking goat is the exact opposite of the ordinary tin can alley goat. The blue-blooded goats are great on sanitation. They require sanitary stables and yards. Personally, they keep their shaggy coats as spotless as those most particular "tabbies" of the cat world. Sometimes I feed them day-old bread; if the bread happens to fall upon the floor they will not eat it. Seven goats may be kept on the same amount of feed that is required to keep one average cow.

Here is a copy of a letter that I received from one of my customers. I am very proud of it.

DEAR LESTER:—I felt as though I would like to write to tell you how much good your goat's milk did my baby girl. When she started taking it at seven months of age, she was all out of kilter and I had tried many different foods and none of them agreed with her. She took the goat's milk for five months and has been so perfectly healthy that I surely shall recommend it to anyone who has a child that is not thriving. I hope that you will do well in your milk business, and that many monthers may be relieved of their baby food anxieties as I have been.

MRS. L. C. BOYER.

So it is easily seen that besides taking care of my goats and selling the milk, I have helped mothers with their baby food troubles. This, I think, is quite a bit for a boy ten years old to do.

Diary of a Potato Club Boy

(Joseph Drake, the author of this article, is the 1923 potato club champion of Michigan. He is thirteen years old. This is his fourth year as a potato club member in the Upper Peninsula. In cash prizes he won $25 last year. He raised 151 bushels on his half acre, kept 15 bushels for seed, sold nearly 95 bushels as certified seed, and the remainder went for table use. Joseph has a brother, Francis, who is also a successful potato grower and club member.)

Having had good success with my certified seed last year, I decided to plant Petoskey Golden Russets again on new ground.

So my father helped me clear ½ acre of land. He blasted stumps and I hauled logs off with the team to make a log fence. Then we pried out the big boulders with a crowbar and hauled them off with a stoneboat. There was a big pine stump which was determined to stay in the ground; so we got the old Kirsten stump puller and showed him that he wasn't going to have his way.

Then we got a big brush plow and turned under the sod and turned up the rocks and picked them off. We plowed May 28th and I disced and harrowed it May 30th.

June 1st and 2nd, I planted my 12 bushels of certified Petoskey Golden Russets. A few days after planting we had a severe rain storm which washed the soil down into a low place and covered the potatoes so deep that they never came up. Seven days after planting, I dragged them with a spike tooth drag to loosen the soil. June 22nd, they came up and grew pretty well. I cultivated them July 6th with a one-horse cultivator and hoed them the next day by hand. July 22nd, I shallow shoveled them, plowed them for better drainage as plot was on a side hill.

But the potato bugs thought that all this was to make more leaves for them to eat; so I thought I'd fool them and gave them Bordeaux mixture and Paris Green. I gave them this again six different times: July 17th, July 23rd, July 29th, August 5th, and September 7th.

July 26th, 27th, and 28th I hoed these 3 days by hand in between all the potato plants to loosen the soil and kill the weeds.

I joined the Michigan Potato Producers' Association for the purpose of having my potatoes certified, so that I could offer them for sale as pure seed. The first field inspection was made August 16th and the second September 5th, and both passed.

We had a killing frost September 14th which finished all chances of any late blight before time to harvest. I started digging October 1st but threshing time arrived, so finished October 9th. I selected 15 bushels for next year's planting, as I want to grow more potatoes next year. I paid my father for all the help he gave me with the potatoes, and we are going to try to raise a bigger crop next year. Hard work is all right when you make good.

Final inspection was made October 19th, and I was some pleased when told that my potatoes passed O. K. Club work brings good results.

November 24th, sold and shipped potatoes to a Pennsylvania buyer. My neighbor, my brother, and I shipped a car of 600 bushels. It was the first car of certified seed shipped out of Iron County in the Upper Peninsula of Michigan.

I exhibited at Grand Rapids and won first and also exhibited at Farmers' Week, East Lansing, and won first and fourth places and was chosen potato club champion of the state and awarded a silver cup.



ROMA AND EUNICE HORN, WISCONSIN'S 1923 STATE CLUB CANNING CHAMPIONS

Who will win this year? Soon boys and girls in many states will be competing for honors at their fairs. Some will be on 4H club demonstration teams. Others will be exhibiting calves, pigs, poultry, and other products of their *work* for the past year. Big plans are astir in every state to make this year's 4H Club Show the best ever.

Will you be going to your state fair? If so, write the Junior Editor about it. Hoard's Dairyman Juniors are winners. Each one is like a rubber ball—the harder you throw it down the higher it rises. A half million boys and girls all over this nation have been engaged in 4H club work this year, learning to use their hands, heads, and hearts. Are you going to be one of the winners? "A winner never quits and a quitter never wins."

A Cotton Country Calf Club

The Lancaster County Jersey Calf Club, formed a little more than a year ago, is not only the first regularly organized calf club for South Carolina, but is another mile-post marking the advance of the dairy cow in the more progressive system of farming which is fast replacing the old cotton system in the Palmetto State.

Sixteen calves were shown for the many prizes awarded by the American Jersey Cattle Club, several commercial concerns and local business houses at the county fair last fall.

In addition to being entirely cared for by their boy owners, these calves



FURMAN HAMMOND WITH OXFORD'S ROBBIE, BLUE RIBBON WINNERS

were home-grown and daughters o the Lancaster County Jersey Bull As sociation sires. Five of the first six heifers in the ring were association sires.

According to C. G. Cushman, dis trict dairy husbandman who did th judging, "the blue and red ribbo calves, grown from birth, fitted an trained for the ring by Furman an Ralph Hammond, were, from th standpoint of training and condition eligible to grace the ring at the Na tional Dairy Show".

The club is planning an exhibi for their coming state fair.

Local Calf Round-up

Mr. R. G. Waltz, Montgomery Cour ty Agent, Pennsylvania, reports tha there was a pure-bred Holstein ca round-up held one day the latter pa of June in Upper Hanover Townshi James L. Wood, a Holstein breede has been the local leader of this clu The calves were assembled on h farm. S. J. Brownell, dairy extensio specialist of State College, and A. Barnhart, assistant state club lead

(Continued on next page)

How to Become a Junior

Any boy or girl under twenty years of a may become a member of the Hoard's Dair man Juniors' Club if one member of the fa ily is a regular subscriber to Hoard's Dair man. It costs you absolutely nothing to joi

In applying for membership, state yo name, age, address, favorite dairy breed, yo father's name and initials, and to whc Hoard's Dairyman is addressed at your hon Are you a member of a boys' and girls' a cultural club? If so what kind? Be sure to wr plainly and give desired information in f

All regularly enrolled juniors are sent t emblems of the Hoard's Dairyman Junio Club—the badge (a watch fob for boys, necklace for girls), the button (showing t head of your favorite dairy breed), and handsome creed. Mail your membership a plication *at once* to Junior Editor, Hoar Dairyman, Fort Atkinson, Wis. Do it no

officiated. Approximately sixty persons were present at the meeting. The Quaker Oats Company of Philadelphia presented a silver loving cup to the winner who is to have the cup for one year. The Holstein-Friesian Association of America gave ribbons to the first four winners.

The placings were as follows:
(1) Homer Bieler, (2) John Pfrommer, (3) Oren Woodward, (4) Luther Pfrommer, (5) Clifford Wood, (6) Harry Wood, (7) Donald Wood, (8) George Wise.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

So thoroughly does George M. Briggs of the Wisconsin College of Agriculture believe in the value of soy beans that he carries a few of these beans in his vest pocket and prescribes them to his friends and audiences as the pills that save doctor bills. His enthusiasm as a preacher of soy beanisms has won for him the nick name "Soy Bean" Briggs. In last week's Hoard's Dairyman (August 15) is an article from his pen entitled "Making Soy Bean Hay" that is worth the attention of you junior dairymen.

Is soy bean hay a good milk feed? Yes. In two trials at the Wisconsin Experiment Station comparing alfalfa and soy bean hay for milk production, very little difference was noticed in these two legumes.

When should soy bean hay be cut? The best stage of growth at which to get the most protein is when the plant is just blossoming. At this stage the plant is leafier. However, the weather is such a big factor in curing soy bean hay that Mr. Briggs advises to "cut in good hay curing weather".

How is soy bean hay best cut? There is no best way, says Mr. Briggs. Cutting with the mower, then using a side delivery rake after leaving in the swath for one day makes a very desirable method. It is sometimes cut with a binder and put up in shocks.

How should this hay be handled? Hay cured in the cock is found to have a higher feeding value than hay cured in the swath. Soy bean hay cocked when rather green, before the leaves become brittle, will shed water better than when cocked later. The hay cock should be high and narrow rather than low and wide.

Explain how sweet clover pasture saves labor. When sweet clover is grown in place of blue grass, the pasture feeding period is made four months longer and no supplementary feeding of roughage in the barn is needed. This saves four months of barn feeding labor through the busy season of crop work. It also saves the labor of growing, harvesting, and storing this summer feed. In many cases this means the saving of one hand's wages, his board, room, and washing. (See Wilber J. Fraser's article.)

Junior Letters

Ruth Keeps Every Issue

Hoard's Dairyman Juniors:—As I belong to no club except our wonderful junior club, I will tell you about our mission band. Of course you all know what it is for. It was organized in November, 1922. Twenty-one of us joined. We call it the "Tooker Mission Band" Our aim is to send a little of the Christmas spirit to other children. The Christmas of 1922 we made a box of 57 handkerchiefs and sent it to the Tooker Memorial School at Oakland, California. Last Xmas we sent dolls, books, and many other articles to other places.

I wonder what keeps Edna Dougan and Grace Miller from writing. I have written to both of them but have received no answers yet. I also wrote to Margaret Wallace.

Say, I have a suggestion. If any of you juniors move, let the junior editor know. My brother wrote to Willis S. English, Galena, Ill., but the letter came right back to him. We thought maybe he had moved away from there.

I was 13 years old the 8th day of March. I wonder if I have a twin. If I have, I wish he or she would sit down quick and write to me.

I wonder if any of the rest of the juniors keep our wonderful paper. The Hoard's Dairyman I mean, of course I do. I have three great big piles of them. I can hardly wait until the next paper comes.

Have you all planned what you are going to do this summer? I have. My father's mother is in very poor health so I am going down there to help her this summer. If I get lonesome down there all I have to do is to go to the storeroom. They keep just hosts of old magazines there and it is lots of fun to look at them.

Hoping to receive bushels of letters from the juniors I will close. My address is R. 1, Box 80, Hicksville, Ohio. Ruth Battershell.

Making a Dog Harness

Hoard's Dairyman Juniors:—The reason I have not written is because we haven't a camera to take a picture. But the other day I got a snapshot of my dogs, sister Maud, and myself.

To make the harness for my dogs, Ring and Bounce, I found a wide strap and cut it in the shape of a breast strap. Then I



MAUD AND JIM CHURCH DRIVING RING AND BOUNCE

got a narrower strap and put over his shoulders to hold up the breast strap. Then I got a long strap and cut it in two pieces the same length. In one end I fastened a ring; the other end I fastened to the breast strap. Then I found a shorter strap and made a back band. That is all the harness I have on Ring, the darkest dog.

On Bounce I have a breast strap and a strap to hold it in place. I could not find a strap the right length to make tugs so I took the cross piece out of a tire chain and made tugs out of the two side pieces. That is all the harness I have on Bounce. I use Ring's harness on the goat, Billy. It is a little too small but I have got along with it so far. I don't use a bridle on the dogs but Billy is too headstrong to drive without one. I looked in a catalog at a goat harness and modeled mine after it the best I could.

Colorado. JIM CHURCH.

Navaho Sheep

Hoard's Dairyman Juniors:—I received the creed some time ago. I think it is very nice.

I took part in the State Spelling Contest of Colorado this spring. I won the District Contest and got to go to the County Contest. There I tied with another girl. We got 99 per cent. The second list I got 88 per cent and the other girl got 94 per cent so she won there.

This is my story about Navaho Sheep:

Navaho sheep belong to the mutton class. They are a very thin boned sheep, and the meat is of good quality. They are tall and slender. The wool of Navaho sheep is one of the poorest grades of wool. Some Navaho sheep are white; others vary in color from light brown to black. It is very seldom that Navaho sheep weigh one hundred pounds. The usual weight is from eighty to eighty-five pounds.

My father gave me my sheep when it was a baby lamb. That was in the spring. When we sold its mother I put it in a pasture with two other Navaho lambs of the same age. There was good grass, a shade tree, and running water most of the time in the pasture. Besides, I fed them some grain all summer. In the early fall I gave them green corn.

When I went to fatten them in the late fall, I put them in a smaller pen and fed them all the grain they would eat and alfalfa hay. My lamb gained the fastest.

My lamb weighed ninety-seven pounds when I sold it and I received 12½ cents a pound for it. That gave me a gain of $5.75. Our address is Broomfield, Colorado.

MAUD CHURCH.



The Kelly Commercial Cord

—an extra rugged tire that will stand up under the rough all-around service tires are called upon to give on the farm

Have you found a pneumatic tire that gives you the kind of service you'd like to get on your car or farm truck?

If you haven't, try one of the new Kelly Commercial Cords.

Extra sturdy, with a massive tread and added strength where strength is needed to make a dependable, long-wearing tire, this addition to the famous Kelly line is the strongest, most serviceable pneumatic tire that Kelly—or, so far as we know, anyone else—has ever built.

It is giving amazing mileage and we unqualifiedly recommend it, particularly for use under conditions where ordinary tires have failed to stand up.

Now made in all sizes from 30 x 3½ up to 40 x 8.

Get your local Kelly dealer to show you one.

Kelly-Springfield Tire Co.

250 West 57th St. New York



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

Holstein springers and fresh cows. W. STRAUSS, Route 5, Watertown, Wis. 3-4

Holsteins—Carload young cows $75.00. EDWARD YOHN, Watertown, Wis. 4-5

Five head registered Holstein females, four to freshen by January. One with A. R. O. record. Forced sale $550.00. Write for particulars. FLOYD HARRIS, Mantorville, Minn. 5-2

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

For Sale—Some good pure-bred Holstein bulls from A. R. O. dams. One ready for service. Several others will be soon. Prices $50 to $100, depending on age and record of dam. PORTER FARMING COMPANY, Colfax, Iowa. 5-2

Waupaca County high grade Holstein and Guernsey cows and heifers for sale in carload lots or will assist you in buying. JENNINGS FARMS, New London, Wisconsin. 5-7

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

For Sale—2 cars of high grade Guernsey cows and heifers to freshen soon. J. J. JENNINGS, New London, Wis. 5-2

Registered Guernsey bull eighteen months old. From A. R. stock. M. F. McNOWN, Onalaska, Wis.

For Sale—My Guernsey herd sire, 3 years old, May Rose and Cherub breeding. Bred by the Iowa State College. A. B. HOLLINGSWORTH, Mt. Pleasant, Ia.

For Sale—Entire herd registered Brown Swiss, eighteen cows and heifers, herd bull, young bull. THOS. LOVE, Howell, Mich. 5-3

Sunny Crest Farm accredited Jerseys. Bulls, 4 to 16 months, $35.00 to $75.00. Also a few heifers. M. EMERSON & SON, Wheeler, Wis. 4-spl

For Sale—30 head of high grade Jersey cows and heifers. Will freshen in September and October. BOYD BERDO, Washington, Iowa.

Sophie 19th Jerseys—You can buy bull calves sired by a grandson of Sophie 19th from high producing dams. Tuberculin tested. Prices you can afford. P. N. STEFFANUS, Delavan, Wis.

STOCK WANTED

Wanted to Buy—Brown Swiss cows, good milk producers, pure-bred or grades. Address, giving prices, WINDHAM FARM, Harvard, Ill. 6-3

Wanted—Guernsey bull old enough for service. SAM TROUP, Chase, Mich.

GOATS

Choice milk goats all ages, not related. Price reasonable. CONDON MEACHAM, Downing, Wis-

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred Hunting Hounds cheap. Trial catalogue. BECK, W19, Herrick, Illinois. 5-4

For Sale—Pedigreed Airedale pups. JANEHURST KENNELS, Waukesha, Wisconsin. 6-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

For Sale—150 tons alfalfa and clover hay, $15.00 f. o. b. Twin Lakes, Wisconsin. BELVOIR FARMS, Lake Geneva, Wis. 4-3

Wanted—Two carloads good cow hay. State price. JOE POGACT, Chappaqua, N. Y. 5-2

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Second cutting alfalfa hay for sale. JOHN MICHELS, Peebles, Wis.

TOBACCO

Homespun Tobacco. Chewing 5 lbs. $1.75; Ten $3.00. Smoking 5 lbs. $1.25; Ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 5-2

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

FARMS FOR SALE

Farm land prices are low and terms easier than they will ever be again in the Northwest. Low round trip homeseeker and summer tourist tickets to Minnesota, North Dakota, Montana, Washington and Oregon. Free descriptive book. E. C. LEEDY, Great Northern Railway, Dept. 82, St. Paul, Minn. 23-*

Minnesota offers opportunities to farmers. Send for free map and literature. O. H. SMITH, Commissioner of Immigration, Dept. 676 State Capitol, St. Paul, Minnesota. 25-9

For Sale—$10,000; fine fertile, Eastern Pennsylvania farm, 60 acres, with equipment. 8 head pure-bred Holstein-Friesian cattle, fine flock of poultry and the year's crops. Good water supply. Very good buildings. Write for particulars. Address BOX 236, care Hoard's Dairyman. 5-2

Farms For Sale—We sell farms, large and small, with rich soil located in Central Ohio near modern schools, highways, churches and towns at low prices with small amount down and balance in 20 annual payments. Write THE MADISON COUNTY LAND COMPANY, London, Ohio.

Buy my 45 acre irrigated fruit and dairy farm and registered Jersey herd in California. E. W. DOANE, Merced, Calif. 6-2

Look, Look. Fine improved farms in Shawano, Oconto and adjoining counties. Prices right. Send for free picture catalog of this alfalfa, potato, and dairy section. Deal direct, no commissions. WISCONSIN FARMERS' & HOMESEEKERS' SERVICE BUREAU, Marshfield, Wis.

Virginia—Modernly equipped dairy farm 275 acres in richest limestone section of state, natural alfalfa land; 35 miles from Washington; 90 acres in blue grass; running water in every field. Modern residence and large horse and cow barns electrically lighted. Three tenant houses and all necessary outbuildings. LIMESTONE FARM, Leesburg, Virginia.

WANT TO RENT

Want to Rent—Modern equipped farm of 120 to 200 acres on share basis for term of years. Married, have own help. References. Address BOX 249, care Hoard's Dairyman.

Wanted—To rent fully equipped farm on net share basis, by competent dairyman with own help. Address L. W., care F. W. PRIEBE, Route 2, Oshkosh, Wisconsin.

FOR RENT

For Rent on Shares, March 1st, 1925. Farm of 150 acres with a dairy of good grade cows. Milk goes to a Bowman factory in the inner Chicago milk belt. Land is all under plow and is in a fine state of cultivation. Buildings are ample and convenient. A man with his own help preferred. Can help to get money for equipment if necessary. Apply by letter to BOX 244, care Hoard's Dairyman, Fort Atkinson, Wis.

Farm for Rent in Central Wisconsin, 80 acres or more. Near school and town, good roads, fine soil under fine cultivation, plenty pasture. Stock and implements can be bought, small payment, or all be rented. Address BOX 246, care Hoard's Dairyman. 6-2

PARTNER WANTED

Wanted—Dairy farm partner, R. N. SNOW, Pagosa Springs, Colo. 5-5

MACHINERY

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 25-10

Cletrac Crawler Tractors. Used and new. CHADWICK BROS. CO., 430 Broadway, Milwaukee. 4-4

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Use Cowtone if you have trouble getting cows with calf; easy to use. $1.50 postpaid. Money back if it fails. ARTHUR CLAUSING, Zillah, Wash. 5-2



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, willing to accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

Male Help Wanted—Firemen, Brakeman, for railroads nearest their homes—everywhere; beginners $150—$250 monthly (which position?) RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 3-5

Men—Women, 18 up. Get U. S. Government Life Positions. $95 to $192 month. Steady work. No layoffs. Paid vacation. Short hours. Pull unnecessary. Candidates coached. Common education sufficient. Full particulars free. Write immediately. FRANKLIN INSTITUTE, Dept. P107, Rochester, New York. 4-5

Wanted—Herdsman, to take charge of Guernsey herd, experienced in making A. R. records. Single man. Give reference. WM. M. JONES & SON, Waukesha, Wis. 4-*

HELP WANTED

Wanted—Men with dairy experience for cow testing association work September 1. Salaries $70 to $80 per month. Give references first letter. H. E. JAMISON, Dairy Department, University of Illinois, Urbana, Illinois. 5-2

Wanted—Young man, single, to learn herdsman's duties in herd. Imported Jerseys. Must be good milker. H. W. AYRES, R. 78, Jamestown, N. Y. 5-3

Wanted—A sober, reliable, and agreeable married man to work on dairy farm to assist with the milking and do general work, in fact anything that comes to hand. Prefer a man who had some members of the family that could assist with the milking. House, garden and fire wood furnished. H. E. BOSWELL, Box 66, Burkeville, Va. 5-2

Wanted at Once—2 middle aged men who can milk 20 head of Jersey cows each. Must be clean. Good home and wages. SWISS DAIRY, Quincy, Fla. 5-3

Wanted November 1—Competent married man to work 180 acre Holstein dairy farm near Dixon, Illinois on shares or salary. Good house and barn. Send references first letter. Address BOX 235, care Hoard's Dairyman. 5-2

Wanted—Middle aged lady to help with the house work. Five in family. Good place and good wages. Must furnish reference. ISAAC STOPPLE, Walworth, Wisconsin. 5-2

Wanted at Once—A single man to work in dairy barn. Must be a first class dry hand milker, a worker and have good habits. A real job for the right fellow, and the best living conditions. POPLAR DAIRY FARM, Box 371, Uniontown, Pa. 5-2

Wanted—Practical, working herdsman for small but select herd of Milking Shorthorn cows. Write giving experience, references and wages. A. B., Post Office Box 16, Summersville, W. Va.

Wanted—Man with family to take care of herd of grade and pure-bred milk cows, and rent farm in S. D. on a fifty-fifty proposition. Owner will furnish cows, tenant to furnish horses, labor and machinery and purchase half interest in hogs and other farm stock, and must give best of references as to reliability and ability to handle milk cows that can be made to deliver the goods. Address BOX 245, care Hoard's Dairyman.

West Texas Military Academy, San Antonio, Texas, offers board, tuition and laundry to two strong boys, rapid milkers, for work in certified school dairy the school year beginning September 10. Certificate of good health and character required.

Women—We show you how to earn money at home making aprons during spare time. For particulars write MARY JANE APRON CO., Manitowoc, Wis.

Herdsman Wanted for State Institution in North Dakota. Jersey herd. We want an experienced feeder and good milker to take full charge. Apply at once, stating salary. Address BOX 248, care Hoard's Dairyman. 6-*

Wanted—Man for milk route and dairy work. Must be honest and reliable, neat in appearance and a gentleman. No cigarettes. State age, wages, experience, full particulars, and give references. Address BOX 241, care Hoard's Dairyman. 6-*

Housekeeper wanted on farm. R-3, BOX 100, Auburndale, Wis.

Wanted—Single man or boy on modern dairy farm. State wages expected. Give reference. BEN JOKERST, Hanover, Ill.

Wanted—Experienced herdsman to take charge of a Raleigh bred Jersey herd. Must be a man of good morals. Well posted on blood lines and breeding of Jersey cattle. Must be a real good milker. In fact he must possess all qualities that it takes to make a first class dairyman. This position pays $165.00 per month and house rent free. Address all communications to W. S. HONNOLL, Business Manager, State Insane Hospital, Jackson, Miss. 6-*

Wanted—A competent dairyman to take full charge of a dairy farm situated near this city. 25 to 50 producing Jerseys. Will make an exceptional proposition on share arrangement for immediate acceptance. Please wire. P. E. HENSON & CO., Little Rock, Ark.

Danish Man around country home. Life job. Describe self, family, habits, experience. References. CHARLES DEXTER, Gonzalez, Florida.

Wanted—Married man to work on dairy farm. Must have experience handling boiler, gas engines and Ford truck. Only reliable man considered. Reference required. FRANK M. KELLY, East Dubuque, Ill.

Wanted—Married man for barn work. Must be good milker and real cow man. Pure-bred Holsteins; modern equipment; milkers. Ten miles from center Minneapolis. New house, water, furnace. Board two men. $75.00 per month, board extra, bonus of one month's pay for year. School 1 mile. Address BOX 251, care Hoard's Dairyman.

Wanted—Experienced cow testers September 1. Salary $85.00—$100.00 and expenses. DAIRY EXTENSION DEPT., Blacksburg, Va.

Wanted—Reliable single man for small Guernsey herd. C. J. MINETOR, Altoona, Iowa. 6-2

Wanted—Competent farm manager and herdsman for Holstein cattle. Married man with first class references required. Apply F. R. BABCOCK, Frick Building, Pittsburgh, Pa.

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

POSITION WANTED

Wanted—By October first, position as herdsman. Married, scientific training, successful experience, both dairy and swine. Best of references. Would take assistant's place in large herd. State full particulars, working conditions, salary. Address BOX 242, care Hoard's Dairyman.

Herdsman, showman, college graduate thoroughly experienced in pure-bred cattle feeding, showing, records, certified and high grade milk production, farm crops and help. Single, 33. Open after Sept. 1st. Best of references as to qualifications, ability, honesty. Address BOX 230, care Hoard's Dairyman.

Young, married man wishes position on up-to-date dairy farm. Years of practical experience in feeding, testing, milk house, etc. Separate house preferred. What have you for A 1 man? Can come at once. MILTON L. THOMPSON, Box 93, Linn Grove, Ia.

Married man, forty, and son fifteen, wish work on farm. Good reference. EUGENE CHADWICK, Rosendale, Wis.

Wanted—Position as herdsman or test cow work in good Guernsey or Holstein herd by young, single man. Wisconsin or Minnesota preferred. Address BOX 233, care Hoard's Dairyman.

For my manager, who has successfully managed my dairy farm four years, I am desiring a position. If you want a first class manager, write E. A. NEUBERT, Sterlingworth Farm, Elkhorn, Wis.

Wanted, Oct. 1st, position as working manager or foreman on modern dairy farm, by experienced middle-aged, married man. Good reference. Position must be good. Give particulars and salary. Address BOX No. 253, care Hoard's Dairyman.

Wanted, Oct. 1st, position as manager or foreman on well equipped farm in the South. Or would be interested in pure-bred dairy proposition. Married, thoroughly experienced. A-1 reference. State full particulars and salary. Address BOX No. 252, care Hoard's Dairyman.

Position wanted by experienced dairyman, married. I have plenty of help. Capable of taking charge of an up-to-date dairy. BOX 13, Burkeville, Va. 5-2

Superintendent, married, best reference, desires position on pure-bred dairy or stock farm. Address BOX 247, care Hoard's Dairyman. 6-2

Position Wanted as farm manager or superintendent of a modern stock farm or private estate. Life experience with pure-bred cattle and swine, specializing in dairying, breeding, developing, testing, records, certified milk production, buying and selling, handling help efficiently, all modern farm machinery, tractors, etc. Age 40, married, no children. Address BOX 250, care Hoard's Dairyman.

Married man, small family, wants position general farm work or dairyman. Life experience, best of reference. Free after Sept. 13. Address BOX 243, care Hoard's Dairyman.

Brown Swiss Meeting

The annual meeting of the Brown Swiss Cattle Breeders' Association will be held at Waterloo, Iowa, during the week of the Dairy Cattle Congress, September 22 to 28. This is the first time that this gathering has been held west of the Mississippi River and the breeders of Iowa have arrangements under way to make it one of the most important and enjoyable that has been held. Frederick Larrabee, prominent breeder of Iowa, is co-operating with Secretary Inman on making the necessary arrangements.

REGISTERED

Holstein Dispersal Sale

The Accredited Herd o

CHAS. E. HAY, FINDLAY, OHIO

Will be Dispersed

SATURDAY, SEPT. 6th

60 HEAD -- 56 Females, 4 Bulls

Sale managed by
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, FIELD SEC.
10905 Euclid Ave., CLEVELAND, O.
Write for catalog and circular.

GEO. M. FLINN DISPERSAL

45 REGISTERED HOLSTEINS

(Accredited Herd)

SEPT. 8th
BEDFORD, MINNESOTA

Because of ill health Mr. Flynn is forced to retire. His famo Woodlawn Farm has been sold and a dispersal of his herd, esta lished over 30 years ago, becomes necessary. This is a migh choice herd of rich Ormsby breeding.

Send for Illustrated Folder

TWIN CITY PEDIGREE & SERVICE CO., Market Bank Bldg., MINNEAPOLIS, MIN

SALE ANNOUNCEMENTS

Sept. 6—Holsteins. Iowana Farms Holstein sale at Davenport, Ia. O. E. Hatch, Mgr.
Sept. 6—Holsteins. Dispersion of the Chas. E. Hay herd at Findlay, Ohio. Ohio Holstein-Friesian Association, Managers.
Sept. 8—Cayuga County Guernsey Breeders' Ass'n., Auburn, N. Y.
Sept. 8—Holsteins. Dispersion of Geo. M. Flinn Herd at Medford, Minn., Twin City Pedigree & Service Co., Mgr.
Sept. 9—Guernsey Dispersal. M. A. Obercash, Hummelstown, Pa. (near Harrisburg).
Sept. 10—Holstein Dispersal Sale. J. C. Kostman, Bruce, Wis. W. H. Krause, Sale Mgr. Thorp, Wis.
Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades Dassel, Minn. A. B. Rayburn Mgr.
Sept. 15—Guernseys. Louis Merryman, Timonium, Md.
Sept. 26—Guernseys. W. E. Wright, Akron, Ohio. Ohio Guernsey Breeders' Ass'n., Wooster, Ohio, Sale Managers.
Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.
Oct. 4—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.
Oct. 6-7—Holsteins. Wisconsin Dairy Show Sale at Waukesha, Wis. Wisconsin Holstein-Friesian Association, Managers.
Oct. 7—Holsteins. Hillsboro Holstein Ass'n., Hillsboro, Wis. Gus Knick, Sec'y.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale a Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, Nev Douglas, Ill., Mgr.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis S. H. Bird, Mgr., So. Byron, Wis.

Breeding Problem Discussed

HOARD'S DAIRYMAN:—In the Jan. 18th issue of Hoard's Dairyman Mr. Graves' discussion on breeding problems was a most interesting presentation of the subject. A careful study of his illustration of the performance of the three sires which he presents brings out some pertinent facts which every breeder should have clearly in his mind. Namely—that while close breeding (I use the term close to include in and line breeding) is very essential to intensify hereditary traits, it works both ways. It intensifies undesirable as well as desirable qualities. Hence we must keep a watchful eye to eliminate as much as possible the undesirable ones, whether it be production or type, through out-breeding. In carefully studying the performance of the sires of Mr. Graves' paper, I have made, out of the data presented, the following tables. These tables I believe enable one to follow Mr. Graves' discussion with more ease and less confusion. Tables 1, II, and III show the performance of the dams and their daughters by sires A, B, and C, the number in each class, and the increase of daughters over dams' production that is due probably to the influence of the sire. Table IV is a summary of the other three tables, while Table V shows the total performance of all three sires in the different classes:

Table I—Daughters of Sire A

	No. daughters	Average Dams	Pounds Fat daughters	Increase
Inbred	2	693	756	63
Linebred	4	525	581	56
Outbred	11	504	608	101
Ave.	17	531	617	86

Table II—Daughters of Sire B

	No. daughters	Average Dams	Pounds Fat daughters	Increase
Inbred	4	661	690	29
Linebred	7	569	762	193
Outbred	8	619	675	56
Ave.	19	610	710	100

Table III—Daughters of Sire C

	No. daughters	Average Dams	Pounds Fat daughters	Increase
Inbred	4	667	684	17
Linebred	1	379	406	27
Outbred	2	549	720	171
Ave.	7	592	654	62

Table IV—Performance of All Daughters of Each Sire

	No. daughters	Average Dams	Pounds Fat daughters	Increase
Sire A	17	531	617	86
Sire B	19	610	710	100
Sire C	7	592	654	62
Ave.	43			88

Table V—Performance of All Daughters According to Breeding

	No. daughters	Average Dams	Pounds Fat daughters	Increase
Inbred	10	669	701	32
Linebred	12	538	672	134
Outbred	21	552	642	90

A careful study of these tables reveals an interesting story in breeding. At first glance we note that the increase of fat produced by daughters in the inbred class is rather small. This might lead to an erroneous interpretation that inbreeding is not conducive to increase production. But when we see that all the dams in the inbred class were high producing animals, we have to modify our first impression. In fact, I believe that it shows that inbreeding in this particular case was successful as far as production is concerned. If this small number of animals be taken as a criterion for inbreeding, we can say that if every other hereditary factor of desirable characters is as well represented as production we are safe to practice inbreeding, even with high producing animals. We find that sires A and C show the highest increase in the outbred daughters. It then looks that as far as sires A and C outbreeding shows the best results. But, we are again disllusioned when we note that the dams in these classes are the lowest producers, hence the possibility of largest increase of their daughters, due to the influence of the high inherited producing factors of those sires.

We also note how heredity has intensified through close breeding. The daughters of sire C, in this class, show an increase of 70 lbs. over those of sire A. Sire C is a grandson of sire A.

It seems that the most striking result is brought on in the linebred class. Sire B is an inbred son of sire A. When mated with high producing linebred females the increase is the largest, while sire C in linebred mating with low producers shows the lowest increase. There is the warning that has a practical bearing. Low production is present, as an inherited factor, even in a high producing animal. When this low production is present in both through the same parents, the offspring is practically neutral. The high producing hereditary factors of sire C, which have shown themselves when mated with high producing inbred females and comparatively low producing outbred females, have been checked when mated with closely related low producers. In this case it seems that a recessive character which was present in both parents has become intensified and become dominant.

When we turn again to the last table we find that the linebred daughters of all three sires show the largest increase. If we can draw any definite conclusion from these animals (I doubt if the numbers are sufficient to warrant definite conclusion) it clearly points that linebreeding is the safest road to increase production, provided, however, we eliminate the low producing linebred animals.

New York. ED. TANSKY.

Indiana Dairy Field Day

The fifth annual field day program of the Indiana State Dairy Association was a big success. The crowd began to arrive at the fair grounds early on August 6. There were over 6,000 people, practically all farmers from the surrounding counties and states.

Judging began at 9:30 a. m. There were 222 animals exhibited by 68 exhibitors, 26 of which were breeders, 23 Jersey calf club members, 18 Holstein calf club members.

R. L. Haeger of Illinois judged the 107 Holsteins, to the complete satisfaction of all exhibitors, and his work was highly instructive. Professor L. H. Fairchild placed the ribbons on the Jersey classes in his usual satisfactory manner, and very much to the pleasure of the exhibitors of the 117 head of Jerseys.—E. A. GANNON, Sec.

Extending Height of Concrete Silo

HOARD'S DAIRYMAN:—The writer was called on a few years ago to extend the height of a 20-foot concrete silo.

Materials were ordered and within a couple of days the new forms were being hoisted in place.

Before placing the forms the upper edge of the old concrete wall was



FIG. 1—RAISING UP THE FORMS

chiseled off on both edges to form a fairly sharp edge to receive the new concrete. This precaution was taken so as to be sure that there would be a good bond between the old and new walls. Also there was no reinforcing rods protruding onto which the new concrete could be anchored. Then the forms were set and the old concrete wet thoroughly. Following this several buckets of pure cement, mixed with water about like thin paint, was poured on the wet wall. Immediately following this the concreting was begun before the old wall had time to dry out.

An extra amount of reinforcing rods were placed just above the old wall to insure strength, there being



FIG. 2—THE COMPLETED SILO

no record as to whether the silo was reinforced for additional height.

The silo has been in use for several years and no signs of leakage or cracking of the walls where the extension was begun. Fig. 2 shows the silo after 12 feet had been added. The forms were constructed by the illustrations and specifications prepared by the Portland Cement Association, Chicago. Any well informed carpenter can take this literature and blue prints and construct forms for building a concrete silo.

The mixture used was one part Portland cement, two parts clean sand, and four parts gravel, by volume.

Pennsylvania. R. U. BLASINGAME.

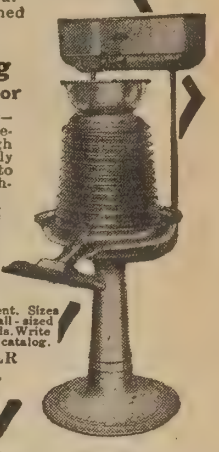
Says Sam: A neighborhood without a community hall is like a family without a sitting-room.

A Better Milk Bigger Profits

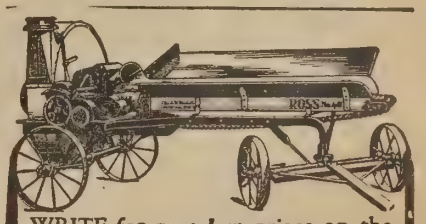
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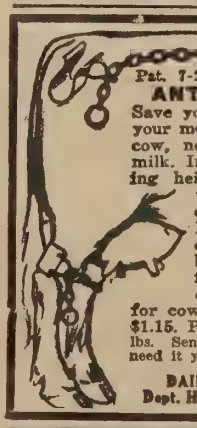


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POULTRY On The DAIRY FARM



J. B. HAYES

The Floor and Walls

A good foundation is a necessary prerequisite for any building and is a special requirement in a poultry house. Since the floor is a part of the foundation, special emphasis must be given to the construction as a decided aid to proper ventilation. Although the floor may be of stone, cement, or other material that seems impervious, more moisture passes through than one will ordinarily consider. More good houses are cussed for the first year because of floor construction than any other point.

Any type of floor requires a good concrete wall that is trenched deep enough to avoid heaving by frost and will prevent outside burrowing of rats. A little too much is preferable to not enough and one should plan on overdoing in preference to a shallow, make-shift sort of construction. Bolts must be countersunk in the wall so that the sills may be securely fastened.

If one is not averse to removing the top eight or twelve inches each year and replenishing with fresh material, a gravel floor can be used. It is well to remember that rats will become troublesome and that a dirt or gravel floor is not of any special benefit to the flock. Dusting on the part of hens may be practiced but is not necessary. A seasonable change of the top layer is required to prevent possible disease infection, for that layer will become filthy from the constant collection of droppings.

A cement type of construction has several advantages in that it is easily cleaned, rat proof, and permanent. When properly built there are few, if any, disadvantages. Although claims are often made that hens wear off their toe nails, contract humble foot, rheumatism, and a flock of other ails, the contention is not supported.

The first error that usually occurs is building in the late fall. The house can be constructed at that time when the rush of farm work is over but the floor must be laid during the early summer. Green or fresh concrete is still saturated with water and proper ventilation is not possible. In one instance that I recall the owner had put up the house late and would have sold cheap that winter for the walls were soaked, the flock sick, and production as low as possible. During the following summer the building dried thoroughly and since then his building has been ideal. In building remember the one point, to steal time and put in the floor early although the rest of the building does wait.

A fill of either cinders or gravel should be used as the base. After tamping this a layer of building paper should be spread and on top of that the coarse concrete and the finish. When building tile are obtainable at bargain prices they can be used with the concrete finish. In many cases seconds or multilated tile are obtainable. Others put the layer of paper between the coarse concrete and the finish. In such cases a heavier finish is required.

Building paper tends to break the capillary action or movement of water upward. Heavy soils are worse in this character than sand but in any case it is cheaper to be safe than sorry by constructing the floor properly.

Wooden floors are used in many sections but are not as permanent. They are also somewhat harder to keep in repair, tend to be cold when the house is elevated, and allow an easy access for rats. The whole chicken fraternity is not agreed on that point but the bulk does seem more inclined to concrete construction.

Even though it is claimed that the concrete is cold, one expects to keep that floor covered with litter and it is little if any time that the hen spends in direct contact. If the belief could be sold that such was the case and it made flock owners keep a clean, dry litter in the house, they would get results in spite of what they thought.

When it comes to the type of wall construction we must shift and boost for nothing but wood. Solid stone or concrete walls are advised for a root cellar but do not work in a poultry house. Various types of hollow tile and concrete blocks are giving varying results but I have not seen conclusive proof of their adaptability at this time. The walls must be dry, prevent moisture condensing and poor conductors of heat. These factors are found to a great extent in wood.

The amount of show that is desired will control the selection of siding to be used. A layer of roofing paper should be placed on the outside of the studding and the boarding nailed directly over the paper. This added insulation for the colder sections in particular is needed. What one desires is a uniform temperature and no drafts. The three sides should be well constructed with special emphasis to the north side and the east and west ends.

In most parts of the northern states the east sides should be lined on the inside. If one does not wish to line the entire interior, the side walls out as far as the dropping board and the north end should be covered to give additional heat to the roosting section.

Many forms of insulating material are on the market at this time that are giving satisfactory results. This type of interior construction is decidedly preferable to lath and plaster at about the same cost. Although many flock owners are sold on the idea of plastering as a preventive to parasites, I doubt very much whether it is worth while under any conditions. It always seemed to me as though such houses were very damp regardless of the ventilating system that was in use.

Poultry Production

To agricultural students desiring a comprehensive and convenient statement of the principles of poultry production, there is recommended a book by Professor W. A. Lippincott of the Kansas City Agricultural College. It is largely used by agricultural schools and colleges. It is not only a good text book for the student in school, but also for the student on the farm.

The consideration of breeding is confined to recognized principles and their application in the practical poultry plant. Hygiene, housing, and allied topics are fully treated. Nearly half of the book is devoted to the problems of feeding to secure a maximum of economical production of marketable products. Food values, balanced rations, preparation of feeds and feeding methods are presented fully and in a manner that appeals to the man not interested in scientific discussion. Every detail of commercial poultry keeping, breeding, incubating, rearing, feeding, marketing, is treated fully and clearly. Special stress is laid on the finishing of the product for market and special market development.

"Poultry Production" is published by Lea and Febiger, and may be secured postpaid through the Hoard's Dairyman Book Department at its regular price of $3.00.

Bulletins of the Week

The Care of Dairy Products, pamphlet published by the State of Illinois Department of Agriculture, Springfield, Ill.

The Price Current Annual Year Book, published by The Price Current Grain Reporter, 309 So. LaSalle St., Chicago, Ill.

Raising the Dairy Calf, by G. C. Humphrey, Banker—Farmer News Bulletin 46, Madison, Wis.

Cash and Share Renting of Farms, by A. H. Benton, Bulletin 171, N. D. Agricultural College.

Relations Between Rents and Agricultural Land Values in Theory and in Practice. Bulletin 318, Texas Experiment Station, College Station, Texas.

Choose Sprays Carefully, by H. F. Wilson and C. L. Fluke. Bulletin 366, Wisconsin Experiment Station, Madison, Wis.

Some Farm Weeds, by A. L. Stone, Circular 171, College of Agriculture, Madison, Wisconsin.

Potato Growing, by F. A. Krantz, J. G. Leach, A. G. Ruggles, G. H. Nesom, and H. B. White. Special Bulletin 85, University of Minnesota, St. Paul, Minn.

Managing Cranberry Fields, by G. M. Darrow, H. J. Franklin, O. G. Malde. Farmers' Bulletin 1401, U. S. Department of Agriculture, Washington, D. C.

Costs of Family Living on the Farm, by O. R. Johnson. Bulletin 213, Missouri College of Agriculture, Columbia, Missouri.

Contributions to Knowledge in Agriculture, by Missouri Agricultural Experiment Station, Columbia, Mo.

Testing Milk and Cream, by W. P. Harp, Circular 119, Missouri Experiment Station, Columbia, Mo.

Give the Animals More Calcium, by E. O. Fippin. Bulletin 177, National Lime Association, Washington, D. C.

Cost of Producing Market Milk and Butterfat on 246 California Dairies, by R. L. Adams. Bulletin 372, California Experiment Station, Berkeley, Calif.

Cash and Share Renting of Farms, by A. H. Benton. Bulletin 171, North Dakota Experiment Station, Agricultural College, N. D.

Popcorn Pointers, by A. F. Yeager. Circular 24, North Dakota Experiment Station, Agricultural College, N. D.

Utility Value of Pure-bred Live Stock, by D. S. Burch. Circular 235, U. S. Department of Agriculture, Washington, D. C.

Farm Orchards, by J. G. Moore. Bulletin 363, Wisconsin Experiment Station, Madison, Wis.

Flaxseed Production, by T. E. Stoa and A. C. Dillman. Bulletin 178, North Dakota Experiment Station, Agricultural College, N. D.

Save toil and time by using your head.

THE STATE OF WISCONSIN
Presents its Annual
STATE FAIR
MILWAUKEE
(74th Year)
Aug. 25, 26, 27, 28, 29 and 30
SIX DAYS; SIX NIGHTS
50 CENTS DAY OR NIGHT
Automobiles Free
FREE PARKING SPACE for 20,000
SPECIAL RATES ALL RAILWAYS
LEGION DAY
MONDAY, AUGUST 25.
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All Wisconsin School Children will be admitted free as guests of State.
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John M. Kelley's Sensational Farm Spectacle with Trained Dairy Cattle and Horses, Mechanical Cow.
BAREBACK RIDING BULL
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KELLEY'S "GREEN BULL"
and 20 Star Vaudeville Acts.
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World's Fastest Dirt Track Drivers and cars.
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New Expo Building
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May's hardy adapted upland grown Kansas, Nebraska or Dakota varieties. Write for our special alfalfa sheet. Prices reasonable. Before buying be sure to get May's prices.
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VETERINARY

Advice is given free in this department. quiries must be signed by the writer, and ould pertain to veterinary matters only. here an immediate reply and prescription e desired by mail, the inquiry must be ac- mpanied by a fee of one dollar. In every stance it will be necessary to give a full scription of the symptoms present.

Rabies in Cattle

When a mad dog has run amuck a farming district biting animals at come its way, some losses from bies will be likely to follow. We ve often seen sheep succumb to e disease some time after being tten and usually in less time than months which seems to be about e maximum length of time at which ese animals and cattle become af- cted when bitten. It is possible r the infection to show up later an that, but such instances may be nsidered rare. In a recent article e described the symptoms of puer- ral mania or craziness in pregnant ws. That disease and rabies may adily be differentiated if the fol- wing symptoms of the latter dis- se are remembered. Usually there a history of attacks by a strange g in the pasture or on the road. he symptoms do not occur suddenly t are ushered in by great restless- ss and excitement. Gradually the mptoms become more violent and e animal at length shows acute af- ction of the brain. Appetite is lost. ilk secretion shrinks and becomes ppressed. Feces and urine are asmodically voided. Soon the ani- al becomes furious, bellows persis- ntly as if in heat, charges about, awing up the dirt and attacking nimals and people. The teeth are sed in such attacks, which was not e case in the mania of pregnancy. a stick is poked at the animal it is stantly grasped with the teeth. We ve seen an affected cow tear her vn skin, but that is much more com- only done by a rabid horse. The es are wild, staring, with the pu- ls wildly dilated and the white of e eyes reddened. Soon these furi- us symptoms come to a climax. hen they gradually lessen, the ani- al weakens, staggers about, goes wn paralyzed and dies in a day or o from the time of appearance of e characteristic symptoms.

Medicinal treatment fails to cure bies, but there is a possibility of reventing the disease in a bitten an- al by immediately giving it the Pas- ur serum treatment and repeating e injections at the times directed by e firm supplying the biologic. This eatment, will, however, only prove ofitable when the animal is of un- ual value on account of pedigree, amily, or superior producing ca- acity. Some good may also be done, the way of prevention, by instant- cauterizing the wound from the te. This may be done with a point- red hot iron, the platinum point a thermo-cautery or with pure rbolic acid. Some believe in the jection permanganate of potash so- tion or tincture of iodine.

The bitten animal should be con- ed so that there will be no possi- lity of it injuring man or animals. s the disease runs such a rapid urse and proves fatal its true char- ter will soon become apparent. ther forms of craziness may shortly sappear. They do not prove fatal, a rule, unless due to acute dis- rbances of the brain, from sun- roke, or over-driving, or to so-called rage poisoning or botulism. Crazi- ss of the pregnant state does not use death. If an animal is watched d quickly succumbs but a certain agnosis of rabies has not been pos- ble, the head should be sent on ice the nearest hygenic laboratory for xamination. If the brain shows the resence of the nigri bodies, that is proof positive of rabies. Persons who have been bitten should at once sub- ject themselves to the Pasteur treat- ment.

Abortion—Garget

I am milking about 15 cows. Have been on this farm about one year. It was a dairy farm 4 or 5 years before and I know there was some contagious abortion among the cows. I have had 10 or 12 calves come past year and all cows have done well, but 2 days ago had cow lose calf at about 5 or 6 months. Now, what I am anxious to know if there is good reasons to think this is the beginning of contagious abortion in my herd. If likely, what can I do?

During past year have had a good deal of udder trouble. I take it to be garget. Cow first stops eating well, then milk don't strain —seems to be little thick, then soon udder gets swollen and milk is lumpy or stringy. Cow almost goes dry but milk continues bad.

Had fine heifer to freshen last July; big udder and promised to be heavy milker but bag caked and I never did get over 6 quarts a day from her. Now and then different quarters of bag had lumpy milk which would clear up in few days. Cow went dry soon, she will freshen July 9th.

Plant City, Fla. C. W. M.

1. We should advise you to isolate the cow that aborted and to cleanse, disinfect, and whitewash the stall she has occupied, including the floor and gutter. To determine if she is affected with the contagious abortion disease your veterinarian should arrange to have a sample of her blood tested by the agglutination method or the state agricultural experiment station or by some pathologist or bacteriologist who undertakes such work. Meanwhile the cow should be disinfected by the veterinarian but not bred sooner than the time at which she would have been bred had she not aborted. For particulars relative to abortion study bulletins on the subject which can be had from the U. S. Department of Agriculture, Washington, D. C., and some of the experiment stations, notably that of Wisconsin, at Madison, and Missouri, at Columbia.

2. Contagious abortion disease and germ-caused mammitis, mastitis, or garget are often closely associated. One cow may be a carrier of the infection, therefore eliminate any one of them that has chronic udder disease. Instantly isolate any cow that is attacked by mammitis and keep her separate until perfectly recovered. Have such cows milked by one who does not attend to the other cows or at least milk them last. Catch abnormal milk in a pail containing a disinfecting solution and then throw it out in a place to which cows have not access.

3. Strip affected quarters, clean once an hour, at time of attack. Bathe persistently with hot water or poultice with hot antiphlogistine containing a little turpentine and spirits of camphor. Have your veterinarian give hypodermic treatment with mastitis bacterin and any internal treatment he deems advisable. Unless pure-bred and very valuable on account of pedigree or performance, cows with spoiled quarters should be fitted for the butcher. If bred and allowed to nurse their calves, keep them away from the other cows. When cows stand in stagnant water they may infect their udders, therefore it would be best to keep them out of the ponds on your farm.

Frosted Teats

Would like to know what is good for frozen cow teats?

Telluride, Colo. K. T. McK.

Treatment at the time of the freezing is the same as that usually applied in frost bite affecting man. If peeling of skin leaves sores afterward an ointment composed of one-half an ounce each of carbolized vaseline and benzoated oxide of zinc ointment, adding one dram of subnitrate of bismuth, will be found excellent as a healing salve.

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

The Hongkong Dairy Farm

(Continued from page 123)

of scrub, trenched it over eighteen inches deep, dug in about sixty tons farmyard manure per acre and planted grass, they had to pay an annual rent to the government from $7 to $12 per acre.

Guinea grass is very succulent when cut young, but is almost useless for soilage when allowed to run to seed. It grows rapidly in moist weather and has the advantage of being an exceedingly heavy cropper. It is weighed in daily by picul-stick at the doors of the cow sheds. It is estimated that the weight of green grass per acre per annum runs from forty to forty-four tons. This weight is not obtained by "sitting down and looking at it". The company keeps a large staff continually working at it, either hoeing, manuring, cutting by hand-hook, carrying it in handy buckets to be weighed at cow sheds, or lifting old roots and recultivating the ground, which is done once every two or three years. The grass is planted with fresh slips taken from old roots and carefully inserted at regular intervals of about fifteen inches.

Silos

During the spring and summer season, grass grows very rapidly, and the 1,000 cattle now on the company's farms are unable to consume the entire quantity grown on 100 acres of land of very inferior quality. The surplus green fodder is converted into silage, which is the only substitute for green feed obtainable in sufficient quantity during the winter months in Hongkong. Eight silos are scattered over the farms at convenient centers and have a combined accommodation of about 800 tons silage; they are built with stone against the hillsides with the interior surface cemented smooth. Paths along the hillsides lead to the filling platform near the roof of the silo and there the grass is chaffed before being thrown into the pit.

Farmers' Income From Cows

HOARD'S DAIRYMAN:—Bloomer, Wisconsin, is a thrifty, well built village of 1700 population. Has a $300,000 condensery which paid to 942 patrons for the first 8 months of 1923—$670,875.14 for 26,468,735 lbs. of milk. It made in the above 8 months, 7,144,560 1-pound cans of condensed milk and 1,562,016, one-half-pound cans of condensed milk. The factory employs about 40 people.

The farmers are raising less hogs and potatoes, devoting most of their energy to dairying and some sheep are raised. Last year the pea-canning factory paid out $150,000 to patrons. The Farmers' Shipping Association shipped from 800 to 1200 cars of farm products. There are two banks in town with combined deposits of about $1,250,000. Some tobacco is being raised but their potato acreage is being cut down. Several farmers are raising alfalfa successfully and many more are planning to do so.

Wisconsin. L. S. BOHRNSTEDT.

Uncle Ab says that co-operation means sharing the downs as well as the ups, and that there are always some downs.

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SILVER BLACK FOXES

Fully Guaranteed Breeding Stock for Sale



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Shomont White Collies Love Kiddies

This one quality alone makes our Scotch Collies rare bargains They're gentle, fearless, devoted. Have every quality a dog should have--intelligence, courage, strength. Fine shepherds, unsurpassed as watchdogs. Indefatigable enemies of vermin. They are the "Aces" of all dog-dom. Satisfaction guaranteed. Pairs not akin. Get our special bargain lists now.

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Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

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Accredited Ayrshires

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Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

Ayrshire Bull Calf

Five months. Dam has 300 day record, 11591 lbs. milk, 450 lbs. fat. Calf by same sire as Sr. 3-year-old R. of H. World's Champion. Accredited Herd. Price $125.00.

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FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires

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Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.

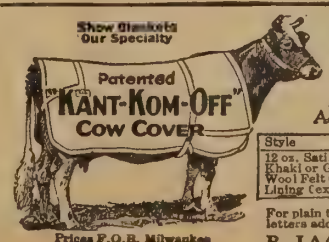
B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

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Prices F.O.B. Milwaukee

COW BLANKETS

KANT-KOM-OFF Blankets fit perfectly, cover the cow properly and can't be rubbed or kicked off. 50,000 in use for conditioning, exhibiting, shipping, testing and protecting against cold and disease. Order from Adv. or send for samples, illustrated booklet and special quantity discounts.

Style	To 48 in.	50-68 in.	70 in. up
12 oz. Satin Finish Burlap	$2.90	$ 3.30	$ 4.40
Khaki or Gray Duck	3.60	4.70	6.20
Wool Felt (all colors)	9.50	11.50	14.50
Lining (extra each)	1.60	2.00	3.30

FITZ-ALL Show Halters Black or Russet $3.65 each

For plain trim add 60c per blanket; wool felt $1.75; on wool felt blankets $1.40. For stenciled letters add 3c per letter; for sewed felt, 15c for each three in. letter, 18c for four in. letter.

R. LAACKE COMPANY, 553 Third St., MILWAUKEE, WIS.

New York Experiment Station Jerseys

(Continued from page 124)

is the farmer who recently stated that due to the low price of milk he could afford to feed his cows nothing more expensive than cornstalks with a grain ration consisting of equal parts of corn and oats. In the eastern states one hears much of the so-called test or forcing ration which is used for cattle that are attempting to make a good record under supervision of the State Agricultural College. This ration usually contains 24% protein or about half protein concentrates in the grain mixture.

Good production and breeding records cannot be obtained with poor feeding and management. They may therefore give a fair idea of the adequacy of the feed for this purpose. In June, 1922, Register of Merit testing was begun in the Station herd but all cows on test must remain in experiment and they cannot be force-fed for a high record. Four cows completed their records in 1923. They produced an average of 8,938 pounds milk containing 508.3 pounds fat which is the equivalent of 635 pounds butter containing 80% fat. One of the animals was 2 years, 11 months of age and another was 12 years, 11 months old. During 1923 a total of 21 cows were bred, including three cows past 14 years of age and two cows 12 years old. Fourteen of these cows became pregnant with one service; six became pregnant with two services; and one cow 15 years of age required four services. The three cows past 14 years of age produced an average of 436 pounds fat. Such production records and good breeding condition after 23 years of feeding this medium protein grain mixture and legume hay in the same herd indicate that it amply cared for the needs of the cattle. Furthermore, this grain mixture when fed with alfalfa or clover hay and corn silage meets the requirements of any feeding standard in use today.

[EDITOR'S NOTE:—This is the second of a series of four articles by Mr. Dalberg on lessons from the herd experience of the Geneva Station for the past quarter of a century. The next will appear in an early issue.]

JERSEYS

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

Belswood Farm Jerseys

Offering bred or open heifers. Heifer calves. Bull calves. Herd Federal Accredited. Write for pedigrees and prices.
A. F. BLOCK, Mgr. Norwood Park, Ill.

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

Serviceable Bulls
From R. M. Dams

We have 2 or 3 very good young bulls from dams with records up to 500 lbs. butterfat made on 2 milkings a day. They are sired by a son of Golden Fern's Noble and a half brother to Fern's Wexford Noble 1922-1923 "National" grand champion.

Have also a few heifer calves for sale.

EASTON FARMS
1305 Cass Street, La Crosse, Wis.
Federal Accredited Herd

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

6 JERSEY BULLS
2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

GUERNSEYS

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.
WADDINGTON FARM, Wheeling, W. Va.

HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO
For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

Thorn Hill Farm Guernseys



Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to
AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write
ERNEST W. SASS, Hoopeston, Ill.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

3 Important Guernsey Sales

MONDAY, SEPT. 8, - Auburn, N. Y.
CAYUGA COUNTY GUERNSEY BREEDERS' ASS'N ANNUAL
SIXTY FEMALES, a large percentage cows in milk. Cayuga County has the second largest Guernsey population of any county in America and the breeders have used high class bulls carrying a large per cent of the blood of Itchen Daisy 3d for many years. The offering is a worthy one and the cattle have been raised under healthy farm conditions. Increased value in purchases is assured.

TUESDAY, SEPT. 9th
DISPERSAL SALE of M. A. OBERCASH
Hummelstown, Pennsylvania
near Harrisburg, frequent trolley service from Harrisburg.
FEATURING MAY ROSE-PAXTANG BLOOD. A splendid lot of cattle from females carrying a large percentage of the blood of the original Paxtang herd. An extra good imported cow by Sequel's Delight and three of her daughters.

MONDAY, SEPT. 15th
LOUIS MERRYMAN'S SEMI-ANNUAL SALE, Timonium, Maryland
60 HEAD—5 BULLS, 55 FEMALES
An effort has been made to secure as high class offering as possible. ALL the bulls are from Langwater, a son of Langwater Recollection, she by Langwater Steadfast, out of Memoir second dam Dolly Dimple.
J. L. HOPE CONSIGNS three comparable with his past offerings.
GERAR CONSIGNS four high class females.
For catalogues all three sales write,
LOUIS McL. MERRYMAN, Sparks, Md.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.
Send for new list.
E. S. PERSON, Minot, N. D.

SARNIA FARM GUERNSEYS

WE OFFER FOR SALE

SARNIA BOB, 85659, dropped Sept. 26, 1922. Sire, Pencoyd Crackerjack, 39627, by Langwater Pencoyd, with 16 A. R. daughters with records up to 810 lbs. fat and out of Quaker Maid of Pencoyd 759.7 lbs. A. Pencoyd Crackerjack has two daughters finished 567.8 FF, and 453 G. The latter on retest will be a class leader in BB. Dam, Infanta of Sarnia, 87746, Record 371.8 GG. A daughter of May King's Vrangue of Ingleside. This bull is large for his age, a good individual, about a third white. PRICE $200.00.
CHARLES L. HILL & SON, Rosendale, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to
JAMISON BROS., R. 2, Appleton, Wis.

JEFFERSON COUNTY GUERNSEYS
combine type and production. We offer high grade and pure-bred cows, heifers and calves of all ages from clean, healthy herds free from T. B. Buy that bull needed for fall service now.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.,
J. C. Ralston, Sec'y., Fort Atkinson, Wis.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.
N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

10 Registered Cows 10
Bred to Langwater Africander

White Farms offer for sale ten good pure-bred Guernsey cows from three to six years old, bred to Langwater Africander 57121.
WHITE FARMS, CAIRO, N. Y.

BULLS 6 to 10 Mos. Old
From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.
A. R. Hoard, Fort Atkinson, Wis
A Federal Accredited Herd

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.
F. E. FOX, Secretary, Waukesha, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.
Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

Summer Bargains In Guernsey Bulls

Midsummer price reduction sale of Registered Guernsey males, calves and yearlings. May Rose breeding mostly from A. R. cows. Federal Accredited herd.
RICHARD F. KLEMM, Baraboo, Wis.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.
Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys.
We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.
Send For New Price List

GUERNSEYS and HOLSTEINS, For Sale

We have from 100 to 500 high grade and registered cows and heifers for sale at all times. Also choice registered bulls of each breed. These cattle come from the best herds in western Wisconsin. They are selected from the largest federal tested territory in the state and are assembled in the largest and most sanitary sale barn in the northwest.
West Salem is on the main line of the C. M. & St. P. and of the C. & N. W.
Write us or better still come and select just what you want.
O. G. CLARK & CO., - - - - WEST SALEM, WISCONSIN

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.
MARSH FARM - - - Waterloo, Iowa



MIXTER FARM GUERNSEYS
A Complete Foundation Herd For Sale

Our herd, established 35 years ago, now includes 300 registered Guernseys bred on the farm. Its size enables us to offer for sale a complete herd consisting of a 3-year-old bull and 10 excellent females. The price is very reasonable. Write us today for complete information.
MIXTER FARM, (*Fed. Accredited Herd*) J. S. Clark, Mgr., Hardwick, Mass.

EL JANE GUERNSEYS ARCADIA, MISSOURI
(85 miles south of St. Louis)

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.
Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!
BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.
Federal Accredited EL JANE FARMS, - Arcadia, Missouri



Raleigh's Torono's Meme 644207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood

We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.
HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

BROWN SWISS



WISS VALLEY GIRL 7TH NO. 4678

Breed Brown Swiss Cattle

prove their superiority over other breeds subjected to trying conditions on the , by keeping in good flesh and filling the while other cows grow thin and reduce yield. You can prove this to your satis-on.

WN SWISS CATTLE BREEDERS' ASS'N
RA INMAN, Secretary, Beloit, Wis.
BOWER, Pres., Union Stock Yds., Cleveland, Ohio

NNOUNCEMENT

Kinnelon Farms, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name, ownership and location.

The entire herd will be moved this month, August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.

The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.

Herd fully accredited, Certificate number 65301

S' HILL FARM, New Vernon, N. J.
P. O. Morristown
R. AND MRS. WARREN KINNEY, Owners
HARRY KROEMMELHEIM, Herdsman

hen writing advertisers please mention rd's Dairyman.

HOLSTEINS

When at the Wisconsin State Fair

Visit Our Calf Club Herd

—all daughters and sons of our junior herd sire

Ensign Pontiac Netherland Fayne

NORRIS FARMS

WAUKESHA CO.
Mukwonago, - Wisconsin

Walcowis Farms

OFFER—

rable grandsons of Iowana Sir Ollie, l by Sir Ollie Mooie Watson and North Gift Champion. Dams have records up 32 lbs., also good year records. Write visit us.

LCOWIS FARMS, N. Dickinson & Son, e Geneva, Wisconsin.

OHIO HOLSTEINS FOR SALE

gistered COWS, HEIFERS and BULLS. ry choice Calf Club CALVES. State exact-what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
509 Euclid Ave., Cleveland, Ohio

Before You Buy A Bull !

Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms
(In Waukesha County)
F. J. Southcott, Manager, Dousman, Wis.

Clean herd under State and Federal Supervision

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

For Sale

Choice Holsteins and Guernseys. 300 head, all ages. Four large farm herds to select from. Milkers and springers at reasonable prices.

WHITEWATER STOCK FARM
A. M. Hanson, Prop. Whitewater, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

GRADE or PURE-BRED

HOLSTEINS

ALL AGES—ANY NUMBER

We can supply good ones at reasonable prices whether you want 1 or a carload.
Dane County Holstein Breeders' Association
Arthur C. Alling, Secy., Oregon, Wisconsin.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

CRYSTAL STOCK FARM offers choice, high-grade Holstein heifer calves at $17. Pure-bred bull calves, $30 and up. Crated f .o. b. our station. High-grade Holstein Springers, carlots or less, pure-bred cows and heifers at farmers' prices. Before you place your next order write
J. C. BOLGER, WATERLOO, WISCONSIN.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, pure-bred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

GRADE HOLSTEINS FOR SALE

We have for sale several carloads of excellent grade heifers due in October at $75 each and top notch cows also due in late September and October at $100. These are exceptionally good ones,—productive and healthy. RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec. Randolph, Wis.

OUR 30-LB. COWS

Michigan State Herds now own 29 thirty-pound cows. With two exceptions, these cows were bred and raised, as well as developed and tested, by Michigan State Herds. One of these cows has five records above 30 lbs., one has three, and two others each have two. The list includes:

TRAVERSE COLANTHA WALKER,	8 yr.,	Butter 38.54,	Milk 679.2
NEWBERRY CANARY DE KOL,	7 "	" 36.50,	" 631.3
TRAVERSE INKA HARTOG,	5 "	" 35.50,	" 694.5
TRAVERSE HENGERVELD WALKER,	4½ "	" 34.88,	" 524.1
PONTIAC JULIA,	8 "	" 33.29,	" 411.8
LONGFIELD HOUWTJE SEGIS 2D,	4 "	" 33.14,	" 704.8
KALAMAZOO HOUWTJE FOBES DE KOL,	5 "	" 32.71,	" 737.1

6 others from 32 to 32.56 lbs. 5 others above 31 lbs. 11 between 30 and 31 lbs. 29 cows average 32.05 lbs. butter and 624.9 lbs. milk in 7 days.

BULL CALVES FROM 30-LB. COWS. Send for pedigrees.

BUREAU OF ANIMAL INDUSTRY
Department B Lansing, Michigan

BULL CALVES

Desirable sons of Sir Charlevoix Ormsby Finderne whose dam produced 35,339.5 lbs. of milk and 1,278.56 lbs. of butter in 365 days and out of short and long time record cows.

J. B. JONES FARMS, Romeo, Mich.
FRANK BOCK, HERDSMAN

200 Carloads of Holsteins

is our motto for this year. We can supply you with as many as you want. Carload lots our specialty. Fine selection, courteous service, and reasonable prices. Less than one-half of one per cent T. B. Home of the World's Greatest Bull Association.

LIVINGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
Burr J. Hoover, Secretary Howell, Michigan

Iowana Farms First Annual Sale

To be held at the Farm, Sept. 6th, 1924

Twenty young cows and heifers, daughters of Meadow Holm Ona Hartog King, Oak De Kol Ollie Homestead and Sir Johanna Fayne. Selected individuals and all sound and right.

AUCTIONEER, COL. MACK
For particulars and catalog, address

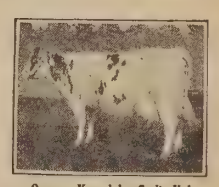
IOWANA FARMS - - - Davenport, Iowa

This is Only One

of the great daughters of K. K. S. V. 24th that make up the greater part of our herd. Her records: 35.96 lbs. B. for 7 days, 958 lbs. for a year. Other daughters include one with 32 lbs. and 4 heifers that average 805 lbs. B., 21,000 lbs. milk at 3 years, 3 months. Send for illustrated circular.

Line bred Sadie Vale bulls for sale.

HOME FARM HERD — *Accredited. Estab. 1881.*
W. B. BARNEY & SONS - - - CHAPIN, IOWA



Quoque Korndyke Sadie Vale

Bargains in Registered HOLSTEIN BULLS--- all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.

Hargrove & Arnold, Norwalk, Ia.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—King Piebe Ormsby Mercedes, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and King Pietertje Mercedes Ormsby, a son of Sir Pietertje Ormsby Mercedes, and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.



A Top Notch Bull for a High Grade Herd — Only $150

COLONEL AAGGIE SEGIS WALKER, BORN OCT. 31, 1923

His dam is a 17-lb. junior two-year-old daughter of SIR WALKER SEGIS HOMESTEAD, a proven show sire with over 30 A. R. O. daughters, while the sire of this calf is a strongly "COUNT"-"PIEBE" bred bull whose five nearest dams average over 1090 lbs. butter in a year.

This calf is a broad-butted, deep middled, straight top-lined, all around good individual, one you will like. Send for pedigree and photo.

A. J. LASHBROOK - Northfield, Minnesota

A Carload of Young Registered Cows

From our herds and those of our neighbors you can select a carload of young cows bred to freshen this fall and early winter at very reasonable prices. Let us describe them to you, or come and see them.

CARLETON COLLEGE FARMS, Northfield, Minnesota
Federal accredited herd

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

PIETERTJE GERBEN PIEBE 363640

Age 3 yrs. Breeder, Gov. Stubbs. Grandson of King Pietertje Ormsby Piebe. Dam—A nearly 20-lb. two-year-old. We have him headed for the National if not sold. If willing to pay $600 for the right kind, write
E. BILLSTEN, 1433 People's Gas Bldg., Chicago, Ill.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

For $250

Son of a 1024-lb. yearly record granddaughter of King of the Pontiacs. Grandson of Sir P. O. M. 41st. Born Nov. 8, 1923. Splendid individual, good size, mostly black.

B. A. NORRIS, ANOKA, MINN.

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

RIVER MEADOW FARMS, Portlandville, N. Y.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

JOHN H. PULS - - ALLENTON, WIS.



Don't let "looks" rob your pocket-book

You can't choose oil or Black Valentine beans by "looks" alone

THESE bean seeds certainly look alike. They even come from the same family—Black Valentine. But one pile will grow fancy stringless beans which earn a good profit.

The other variety will grow just plain, stringy beans. It isn't safe to judge by appearances!

It costs even more to pick oil on looks alone. The poorest may look like the finest, and it is impossible to tell *from appearance* whether or not an oil is the right one for your motor. The eye can't detect the difference. But your motor can, and though it may not immediately complain, a poorer crop of power and a bigger crop of wear are as sure as tomorrow's sunrise.

Talk with any man, who doesn't judge by appearances, who buys *certified* seed and *pure-bred* cattle, and you'll find a man who uses good judgment in his treatment of automotive equipment. He will tell you that the cheapest oil may provide the most expensive lubrication, and that one unnecessary breakdown, one repair bill for prematurely-worn parts, will quickly wipe out any fancied saving.

A man of this type is very likely to use Mobiloil, because:

1. He refuses to be fooled by appearances.
2. He knows that no other company has *specialized in lubrication* as has the Vacuum Oil Company.
3. His judgment in selecting Mobiloil is backed by the approval of practically every manufacturer of automobiles, motor trucks, and farm tractors.
4. He is *sure* of getting the correct oil for each individual car, truck, tractor, or farm lighting unit.
5. He has proved that Mobiloil is the most economical oil to use.

* * *

Gargoyle Mobiloil is not a gasoline by-product. It is refined from crude stocks chosen solely for lubricating qualities. The Vacuum Oil Company has specialized exclusively in lubricating oils for over 58 years, and its recommendations are accepted as scientifically correct by engineers all over the world. Make the Chart of Recommendations your guide. You will obtain economical results from this certified oil just as truly as you obtain profit from the certified seed which comes from your experiment station.

GARGOYLE

Mobiloil

Make the chart your guide

Domestic Branches: New York (*Main Office*), Boston, Philadelphia, Pittsburgh, Buffalo, Rochester, Dallas, Chicago, St. Louis, Detroit, Indianapolis, Milwaukee, Minneapolis, Des Moines, Kansas City, Mo., Oklahoma City, Peoria, Springfield, Mass., Albany, Portland, Me., New Haven

VACUUM OIL COMPANY

Chart of Recommendations

(Abbreviated Edition)

THE correct grades of Gargoyle Mobiloil for engine lubrication of both passenger cars and motor trucks are specified in the Chart below.

How to Read the Chart: A means Gargoyle Mobiloil "A"; B means Gargoyle Mobiloil "B"; BB means Gargoyle Mobiloil "BB"; E means Gargoyle Mobiloil "E"; Arc. means Gargoyle Mobiloil Arctic

Where different grades are recommended for summer and winter use, the winter recommendation should be followed during the entire period when freezing temperatures are experienced.

The Chart of Recommendations is compiled by the Vacuum Oil Company's Board of Automotive Engineers, and represents our professional advice on correct automobile lubrication.

NAMES OF AUTOMOBILES AND MOTOR TRUCKS	1924		1923		1922		1921		1920	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Anderson	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Apperson (6 cyl.)	A	A	A	Arc.						
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Auburn (Model 6-63)	A	Arc.	A	Arc.						
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Autocar	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Buick	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Cadillac	A	Arc.	A	A	A	A	A	A	A	A
Case	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chalmers	A	Arc.	A	A	A	A	A	A	A	A
Chandler	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Checker Cab	A	A	A	A						
Chevrolet (Models F B & T)					A	Arc.	A	Arc.	A	Arc.
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler	A	A								
Cleveland	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cole	A	A	A	A	A	A	A	A	A	A
Col'bia (Det.) (Con't Eng.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" All Other Models					A	Arc.	A	Arc.		
Cunningham	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	A
Davis	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dodge Bros.	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dorris (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" All Other Models	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Dort	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Duesenberg	A	Arc.	A	Arc.	A	Arc.	A	Arc.		
Durant Four	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.				
Elcar (4 cyl.)	A	A	A	A	A	Arc.	A	Arc.	A	Arc.
" 8 (6 cyl.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Flint	Arc.	Arc.	Arc.	Arc.						
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	A	A	A	A
Gardner	A	A	A	A	A	Arc.	A	Arc.	A	Arc.
Garford (1¼, 1½ ton)	A	Arc.	A	Arc.	Arc.	Arc.	A	Arc.	A	Arc.
" All Other Models	A	A	A	A	A	A	A	A	A	A
G. M. C. (Con't Eng.)							Arc.	Arc.	Arc.	Arc.
" All Other Models	B	A	B	A	B	A	B	A		
Graham Bros.	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Gray	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.				
Gray Dort (Canada)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Haynes (6 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (12 cyl.)							A	A	A	A
H. C. S.	A	A	A	A	A	A	A	A	A	A
Hudson Super Six	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Hupmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Jewett	A	Arc.	A	Arc.	A	Arc.				
Jordan	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Kissel	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Lexington (Con't Eng.)							Arc.	Arc.	Arc.	Arc.
" All Other Models	Arc.	Arc.	A	A	A	A	A	A		
Lincoln	A	A	A	A	A	A	A	A		
Locomobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Mack (Con't)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
McLaughlin-Buick (Can.)	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Marmon	A	A	A	A	A	A	A	A	A	A
Maxwell	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.
" (Con't)					Arc.	Arc.	Arc.	Arc.	Asc.	Arc.
Moon	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Nash Four & Six	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.
" (Con't) (Quad.)					A	A	A	A	A	A
" All Other Models	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
National (Ind.) (Mod. 6-31)			A	Arc.						
" " (Mod. 6-51)			Arc.	Arc.						
" All Other Models	A	A	A	A	A	A	A	A	A	A
Oakland	A	A	A	A	A	A	A	A	A	A
Oldsmobile (4 cyl.)			A	Arc.	A	A	A	Arc.	A	Arc.
" (Model 30)		Arc.								
" All Other Models			A	A	A	A	A	A	A	A
Overland	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Packard (Eight)	A	Arc.	A	Arc.						
" All Other Models	A	A	A	A	A	A	A	A	A	A
Paige (Con't Eng.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (Con't)			A	A	A	A	A	A	A	A
" All Other Models					A	Arc.	A	Arc.	A	Arc.
Paterson	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Peerless (8 cyl.)	A	Arc.	A	A	A	A	A	A	A	A
Pierce Arrow (2 ton)	A	A	A	A	A	A	A	A	Arc.	Arc.
" " All Other Models	A	A	A	A	A	A	A	A	A	A
P. & V. Knight	BB	A	BB	A	BB	A	B	A	B	A
Reo	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Rickenbacker	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.				
Roamer (Mod. 4-75)	A	A			A	A	A	A		
" All Other Models	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Rollin	A	A								
Rolls Royce	A	A	A	A	B	A	B	A		
Sayers & Scoville (S&S)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Star	Arc.	Arc.	Arc.	Arc.						
Stearns Knight	B	A	B	A	B	A	B	A	B	A
Stephens	A	A	A	A	A	A	A	A	A	A
Stewart (N.Y.) (¾ ton)			A	A	A	A	A	Arc.	A	Arc.
" N.Y. (1 ton)	A	A	A	A	A	A	A	Arc.	A	Arc.
" " (Mods. 7X & 10X)	A	A	A	A	A	A	A	A	A	A
" " All Other Models	A	A	A	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Studebaker	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Stutz (4 cyl.)	A	A	A	A	A	A	A	A	A	A
" (6 cyl.)	A	A	A	Arc.						
Westcott (Mod. D-48)	A	Arc.	A	Arc.	Arc.	Arc.				
" (Mod. 60)	A	A								
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
White (Mods. 15 & 20)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" All Other Com'l Models	A	A	A	A	A	A	A	A	A	A
Willys-Knight	B	Arc.	B	A	B	A	B	A	B	A
Winton	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Yellow Cab	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.		

Makes of Engines When Used in Passenger Cars and Motor Trucks

(Recommendations shown separately for convenience)

Buda (Mods. RU, WU)					A	Arc.	A	Arc.	A	Arc.
" All Other Models	A	A	A	A	A	A	A	A	A	A
Continental (Mod. B5)	A	A	A	A	A	A				
" (Mod. B2)					A	A	A	A	A	A
" (Mod. 12XD)			A	Arc.						
" (Mod. B7)	A	A								
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Falls	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hercules	A	A	A	A	A	A	A	A	A	A
Herschell-Spill'n (Mods. 15, 41, 80 & 91)	A	A								
" All Other Models	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hinkley	A	A	A	A	A	A	A	A		
Lycoming (C Series)	A	A	A	A						
" All Other Models			A	Arc.	A	Arc.	A	Arc.	A	Arc.
Rochester	A	A	A	A	A	A	A	A	A	A
Waukesha (Mods. Y, Ya & Z)	A	A								
" (CU, DU, EU, FU)	A	A	A	A	A	A	A	A	A	A
" All Other Models			A	Arc.	A	Arc.	A	Arc.	A	Arc.
Wisconsin	A	A	A	A	A	A	A	A	A	A

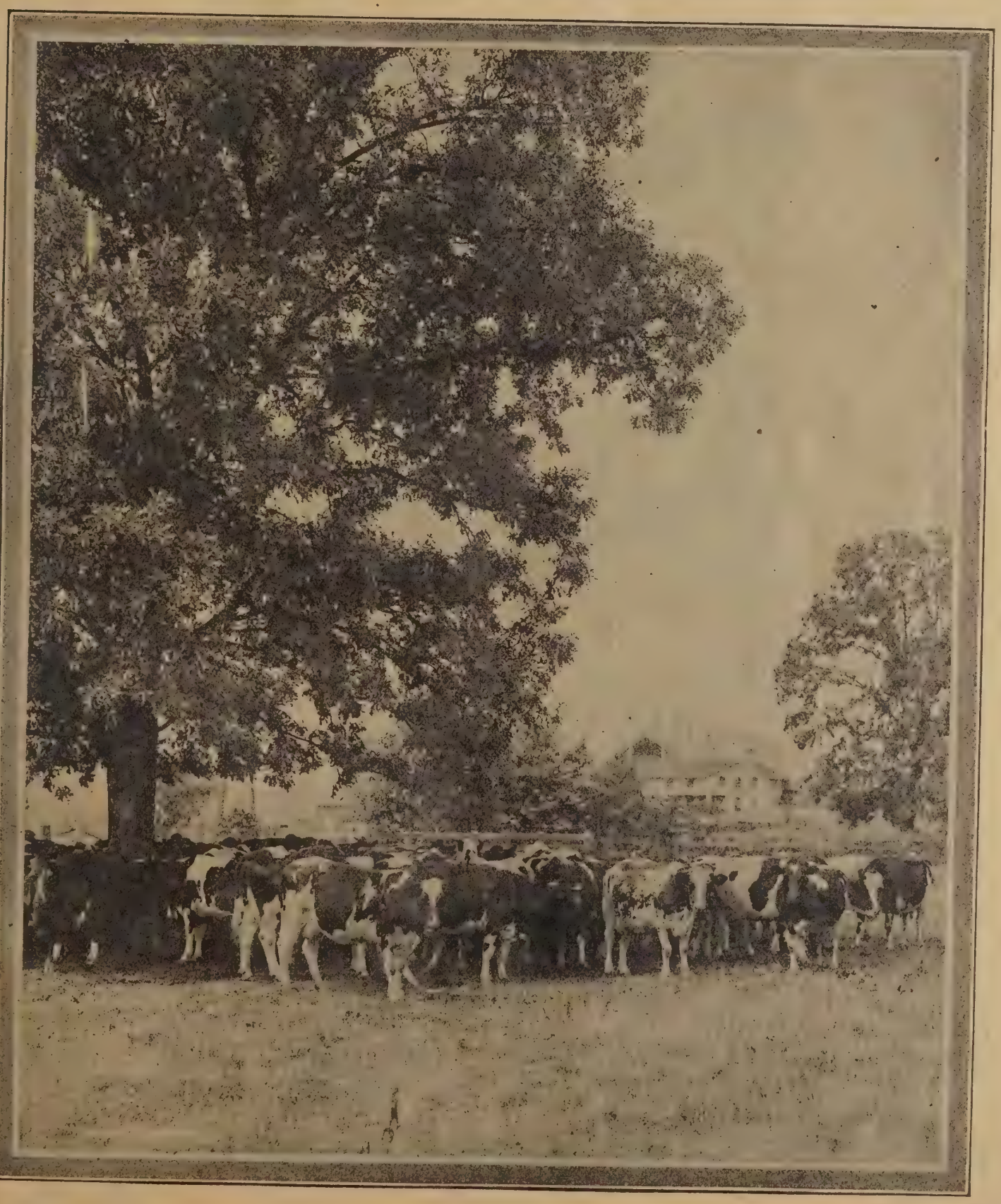
Transmission and Differential

For their correct lubrication, use Gargoyle Mobiloil "C," "CC" or Mobilubricant as recommended by complete Chart available at all dealers.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



olume LXVIII, No. 7 Fort Atkinson, Wisconsin August 29, 1924

PREFERENCE



RECENTLY a questionnaire was submitted to the senior students of various agricultural colleges who graduated in June of this year, asking them to express their preference for a variety of articles used by farmers. Among these were included cream separators and milking machines. Questionnaires were received from students in the following institutions:

Alabama Polytechnic Institute, University of California, Purdue University, University of Minnesota, Michigan Agricultural College, University of Missouri, Oregon Agricultural College, University of Georgia, Ohio State University, Cornell University, University of Tennessee, University of Illinois, West Virginia University, Penn State College, University of Nebraska, Iowa State College, University of Wisconsin.

82.3% preferred De Laval Cream Separators
60.9% preferred De Laval Milkers

Such expressions coming from these students who have had an opportunity of studying and using these products are a splendid indication of the remarkable preference shown for De Laval products.

The De Laval Separator Company

New York
165 Broadway

Chicago
29 E. Madison Street

San Francisco
61 Beale Street

HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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EVER FAILING OR NEVER FAILING PASTURE

Part 9.

Cows Produce Well On Sweet Clover

WILBER J. FRASER, University of Illinois

Cows' production increase when they are turned on sweet clover pasture.

The last feed that a cow eats and makes into milk, above that required to pay expenses, yields the profit.

It encourages the cow to eat to her full capacity.

Sweet clover pasture, rightly handled, is a most satisfactory ration for economic milk production.

SWEET clover pasture saves land, labor, and the cow's energy, as the last three chapters have hown, but the most important thing t does, and the thing that any pasure crop must do to pass the first test n a dairy farm, is enable the cows o produce a good amount of milk. No matter how much feed a pasture rop provides or how long a season ver which it affords pasture, unless ne cow can produce a large amount f good milk from it, the crop is of ttle value to the dairyman.

The majority of the men answerng the questionnaire reported a ield of from 25 to 40 pounds of milk er day from their best cows when on veet clover pasture, and many of iese fed no grain. There is nothing the answers to indicate that the ws did not produce well, according their natural ability, stage of laction, and the circumstances of the se. Some of the dairymen made inresting statements that clearly incate a high production of milk from veet clover, as the following facts d quotations will show.

Significant High Yields of Milk

"My best cows produce 60 pounds milk on sweet clover pasture. I d an average of 11,000 pounds of lk for 10 months according to cow sting association records. Three of ese were two-year-olds."—Fred C. ieker, Southern Illinois..

"A cow that freshened September gave 60 pounds of milk per day on veet clover the latter part of Sepmber and the fore part of October. tried to feed my cows some grain t spring and summer while on eet clover pasture, but they ate so tle they wasted about as much as y ate. I would rather quit dairy- than be without sweet clover pase."—Albert C. Kolmer, Southern nois.

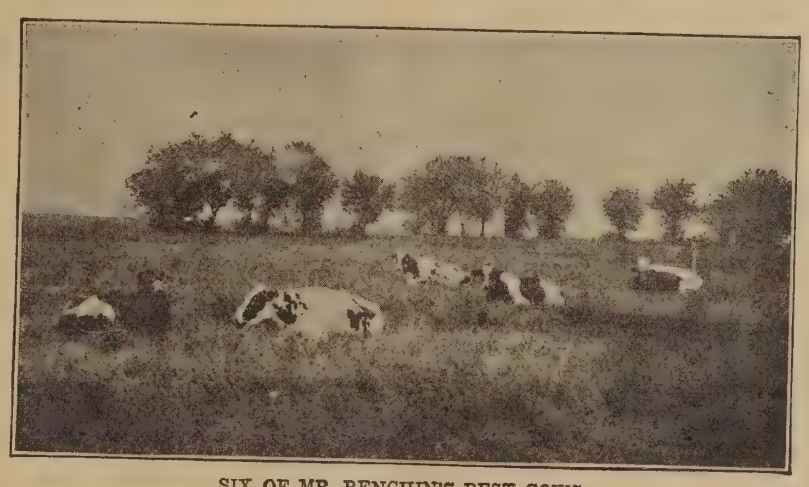
"I do not think there is anything t will equal sweet clover pasture milk production."—Jesse Payne, thern Illinois.

I had a heifer that was two years three weeks old when she freshd January 16, and she is produc- 32 pounds of milk per day on et clover pasture without grain at present time—June 26. This is pounds more than she was proing in April with grain."—Mr. ers, Northern Illinois.

eed Only Four Pounds of Grain

Many dairymen fed a little grain he sweet clover pasture, but four nds per cow per day was usually maximum reported. In fact this s much as most cows will eat if good sweet clover pasture. I vis- the herd of one of my former ents, Otto Kolmer of Southern ois, on May 28. His cows were on t clover pasture and he was feedthem all the grain they would up twice a day and it was just pounds per cow per day. There was a little grain left in every cow's manger when I was there.

Mr. Kolmer had a nine-year-old cow freshen December 29, 1923, and she produced on 40 pounds of silage, 13 pounds of alfalfa hay, and 20 pounds of mixed grain, 60 pounds of milk per day as her highest production. By the latter part of April, she was down to 46 pounds of milk per day. When she was put on sweet clover pasture, she came up to 50 pounds of milk per day and gave one day 52 pounds on sweet clover pasture and four pounds of grain, which was all of the grain she would eat. This is a most astonishing fact, for corn silage and alfalfa are the best roughages known for dairy cows.



SIX OF MR. RENCHIN'S BEST COWS

One of these produced 75 pounds of milk per day, and two others produced 60 pounds, on sweet clover pasture without grain.

Cows Increase When Turned on Sweet Clover Pasture

Most of Mr. Meyers' herd of 40 cows in Northern Illinois are fresh in the fall, and the following is the way twelve of his best cows produced during April, May, and June, showing how they came up in milk when turned on sweet clover pasture the last day of April. They received grain until April 30, but this was cut off when they were put on pasture.

Average Daily Milk Production Per Cow													
Cow	A	B	C	D	E	F	G	H	I	J	K	L	Daily ave. of 12 cows for the month
April	33	22	16	23	13	16	27	21	17	30	27	40	23.5 lbs. milk
May	34	18	22	23	14	18	24	25	22	32	35	37	25.5 lbs. milk
June	43	30	27	27	16	22	30	30	22	32	34	34	29.0 lbs. milk

These 12 cows were fed corn silage, legume hay, and grain and produced an average of 23.5 pounds of milk per day. The last of April they were turned out on sweet clover pasture and the grain was discontinued. The cows came up in milk production to an average of 25.5 pounds per day, an increase of two pounds, and again increased their production in the month of June to 29 pounds, or another increase of 3.5 pounds. They made an average increase of 5.5 pounds of milk—23 per cent—from barn feeding in April to sweet clover pasture in June.

Sweet Clover Was Better than Grain

In the spring of 1923, Mr. Ed. Rehling's cows were producing an average of 383 pounds of milk per day from the herd, and he was feeding the cows corn silage, alfalfa hay, and some grain. When he turned onto sweet clover pasture April 23 he quit feeding grain, and the cows immediately came up in milk. After they had been on the sweet clover 10 days, they were producing 525 pounds of milk per day, an increase of 142 pounds, or 37 per cent. On the barn ration the cows produced 25.5 pounds of milk per day. After they had been on sweet clover they produced an average of 35 pounds per day.

Mr. Rehling had one cow that produced 69 pounds of milk per day on sweet clover alone, without grain, in 1923. In 1924 the same cow produced 50 pounds on sweet clover without grain.

I believe the statements made above by intelligent, practical dairymen are not exceptions, but the general rule for good cows and that many more such cases would be found if the facts were given.

I have watched the production of cows on sweet clover pasture for a dozen years and have never seen a case where the production was not as good as could be expected, the quality of the cows considered. Wherever sweet clover pasture is rightly handled and properly supplemented for high production, I believe cows can not be fed a ration more satisfactory for economic milk production, when all the factors are taken into consideration.

When Jersey cows produce over 25 pounds of milk, or Holsteins over 35 pounds, they should be fed some grain on sweet clover pasture. When producing above these amounts for a long time and not fed grain, they will ultimately run down in flesh which will be detrimental to their production and best welfare later.

Sweet Clover Encourages the Cow to Eat Her Full Capacity

Since sweet clover pasture furnishes a constant supply of fine, green feed, the cow always has a good ration before her, night and day. She can get as much feed as she wants whenever she wants it, and this encourages her to *keep filled up to her maximum capacity all the time.* As it is the *last feed that a cow eats and makes into milk, above that required to pay expenses, that yields the profit,* the advantage of encouraging her to consume up to her limit is easily recognized.

Sweet clover pasture is good not only from the standpoint of high production, but also because it stimulates the cow *in the natural way* with good, fresh, green roughage to give a large yield of milk. It does not "burn out" the cow as does a heavy grain ration, but rather keeps her in the best physical tone because it is the kind of feed which she was designed by nature to handle over a long period of years, and thus tends to add to her length of life.

Marinette County, Wisconsin, has voted $600 by the county board to prepare a National Dairy Show exhibit. Among other things that will be shown is an exhibit of Italian cheese, this county being the greatest producer of this brand in the country. Charles B. Drewry is county agent.

A meeting of the board of directors of the National Milk Producers' Association will be held during the National Dairy Show, it is announced by Secretary Holman. A total of 22 separate producers' organizations will be represented.

CONTROLLING ABORTION IN CATTLE

B. T. SIMMS, OREGON

THE financial success of any dairy herd depends very largely upon good production. There are three principal factors which influence high production. These are breeding, feeding, and health.

The progressive dairyman of today has a very definite breeding program. He selects his herd sires with certain ideals in mind. He is a close student of pedigrees, blood lines, and inheritance. He can discuss with intelligence, inbreeding, line breeding, and out-crossing.

He is just as well informed concerning feeding. He knows the energy value of fats, carbohydrates, and proteins. He balances his rations with skill and plants his crops with their feeding value in mind. When he buys commercial feedstuffs he demands a guaranteed analysis and he sees to it that the state has chemists to check these analyses.

His attitude concerning the health of his herd is entirely different. He has no definite program for the control and eradication of any disease except tuberculosis. I doubt very much if he would have this if the milk-consuming public had not demanded it. While the dairyman knows in a general way that infectious abortion, white scours, garget, and sterility cause very serious losses, he has very little accurate knowledge as to the methods of preventing and controlling these disturbances of the health. This being true it is not surprising to find the health factor is very frequently the cause of financial ruin of progressive dairymen. Any person who is in touch with the dairy industry can recall many herds which have been ruined by either infectious abortion or sterility. These two troubles constitute the most serious health disturbances of dairy cattle. While there are many problems concerning these troubles that are still unsolved, we have at hand sufficient definite knowledge to enable the dairyman to adopt a program for prevention and control.

Facts Concerning Infectious Abortion

Abortion is a definite infectious disease of cattle caused by a germ called *Bacillus abortus* (Bang). It should not be confused with sterility as there are many sterile cows which are not infected with the abortion germ. This trouble exists in practically every section of the world where dairying is well developed. It is most prevalent in the older dairy sections where dairy cows are most numerous. It is impossible to give any accurate figures as to the percentage of infected animals. In Oregon we estimate, from having tested several thousand animals, that approximately 20 per cent of the cows are infected. The percentage would probably be some higher in the older dairy states.

The germ which causes this disease will not grow outside the animal's body but it will live for several months in dark, damp places. It is not so easily destroyed by drying as are many of the other disease-producing organisms. It lives and multiplies in the udder and in the pregnant uterus. Not every infected cow has the germs in her udder though. The diseased cow throws off the germs in large numbers at the time of aborting or calving and for several days thereafter. In most cases the discharge of abortion germs ceases before the 60th day after calving or aborting. If the udder is infected the germs will escape in the milk. The number passed off in this manner is small when compared to the number discharged at the time of aborting.

Some investigators have found the germs occasionally in the testicles and other genital organs of bulls. Abortion-infected bulls are quite rare, however.

How it spreads. Methods of spread of this trouble have been studied by several investigators. At the Oregon Experiment Station five possible methods of spread have been studied under actual dairy conditions. These are by the bull at the time of service, from the dam to the fetus during pregnancy, through feeding infected milk to heifer calves, through penning or pasturing unbred heifers with aborting cows, and through penning or pasturing pregnant heifers or cows with aborting cows.

In the experiments with bulls more than a dozen were used and above two hundred calves were sired by them. These bulls were mated with both infected and non-infected cows. In some instances a certain bull was bred to an infected cow during the morning and to an abortion-free cow during the afternoon of the same day. The bulls were never allowed to run with the cows. The infected cows were bred in a separate lot. No precautions such as flushing out the sheaths of the bulls were resorted to. In no instance was there any indication that any of these bulls spread abortion.



AEROPLANE VIEW OF JUNE-WAY FARM

This farm is owned by W. O. Washburn of Minnesota and it specializes in Holstein cattle and Swiss milch goats. Mr. Washburn is particularly enthusiastic over the milch goat business and reports ready sale of milk at 50 cents a quart.

In studying the possibility of an infected dam passing the disease on to her offspring, heifer calves born from infected cows were studied. They were kept under observation until the termination of their first pregnancies. During the period of study they were tested regularly for abortion. There was absolutely no evidence that the disease was transferred from the dam to her calf during pregnancy.

Approximately a hundred heifer calves were fed milk from abortion-infected cows. Occasionally during this test portions of this milk were injected into guinea pigs and typical lesions of abortion were produced, thus proving that the milk carried the germs. If the feeding of this milk was stopped before the calves were six months old, the disease was not established in such calves.

Unbred heifers exposed by penning or pasturing with aborting cows occasionally contracted the disease. The older these heifers were the more easily they seemed to be infected. Such exposures were usually negative even in heifers past breeding age.

Pregnant cows or heifers penned or pastured with aborting cows contracted the disease very regularly. Experiments extending over a period of eight years have shown conclusively that this is the usual method of spread of infectious abortion.

Symptoms. The act of abortion is only one of the many symptoms of abortion disease. It is the most spectacular of the group though and consequently is the one through which the owner most frequently makes a tentative diagnosis. According to studies at the Oregon Experiment Station it is very unusual for any considerable number of cows to abort unless infectious abortion is present. It is recognized, however, that there are some abortions not associated with this trouble. It is well established, too, that many cows infected with abortion will carry their calves full time and deliver them alive. Contrary to popular belief, infectious abortion may cause a cow to lose her calf at any stage of pregnancy. We have observed some cases as early as the seventh week after conception and others as late as the middle of the ninth month. Many of the early abortions pass unnoticed.

If abortion occurs before the sixth month the afterbirth is nearly always passed with the calf. If it occurs later than the sixth month the membranes are usually retained. The liquid passed at the time of aborting is a dirty yellowish color and contains many small semi-solid particles. There is frequently a characteristic and quite disagreeable odor.

Retained afterbirth, as previously mentioned, is a frequent symptom of abortion infection. This is seen many times in the infected cows that carry their calves full time and deliver them alive.

Garget is much more frequent in abortion-infected than in abortion-free herds. This trouble seems very prone to attack cows which have been infected with abortion a year or more. Very often, when we see herds in which garget is serious, the owner tells us that a year or more previously there was a bad outbreak of abortion among his animals.

Sterility so frequently follows abortion infection that many people consider it as a symptom. Like garget it occurs to some extent in abortion-free herds but to a much greater extent in the infected herds.

From an economic standpoint decreased milk production is the most serious symptom of this disease. It is generally known that the aborting cow does not come to her full flow of milk. Most dairymen do not realize that the infected cow which carries her calf full time will not usually come to her full flow. This is a fact, however. In herds where accurate records were kept we found that animals of the same age, type, and breeding, when divided into abortion-free and abortion-infected groups, would show about 25 per cent greater production in the healthy group.

Diagnosis. The symptoms are such that accurate diagnosis can not be made by studying them alone. There are two very reliable laboratory tests which are used in detecting this disease. They are known as the agglutination and the complement fixation tests. Of these the agglutination test is the simpler and it is the one in most general use. We have used this test at the Oregon Experiment Station under both laboratory and field conditions. After experience with many thousands of these tests we feel quite sure that it is very accurate. It will not determine just which animals will abort but it will tell which are infected and consequently are a source of danger.

Treatment. No successful treatment has been found. It is interesting to note the large number of treatments which have been brought out and advertised during the last few years. In spite of all these the disease continues to threaten the dairy industry. Bacterins, vaccines, and serum have been recommended and rather widely used. It is possible that the live organism vaccine possesses some merit but it is still in the experimental stage. It should be recognized that these live organisms are a possible source of infection and therefore they should be used with extreme caution. We know that infected animals occasionally recover but under average dairy conditions such recoveries are not frequent. The only safe thing at present is to consider an animal once infected always dangerous.

With the above facts available a program for abortion prevention, control, and eradication has been worked out. It has been demonstrated in Oregon herds that it will give results under practical dairy conditions.

A Program for the Disease-free Herd

The program for the dairyman whose herd is free from abortion disease is as follows:

1. Never add any female of breeding age to the herd until she has been tested for abortion. If females come from suspected herds isolate such animals and give them a second test after 30 to 60 days.

2. Before adding any animal to the herd give it an antiseptic bath, paying special attention to the feet, legs, belly, and tail. This is to get rid of any infection that might be on the skin.

3. Do not pasture any cows or heifers with untested cows or heifers.

4. Do not allow any stray cows or heifers on the premises.

5. On the show circuit tie the calves at one end of the string and the bulls at the other end. Take it up with the management of the show and if possible have the abortion-tested cattle housed in a barn separate from those that are not tested.

6. Test the herd annually for abortion. This precaution is as necessary

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NEW YORK EXPERIMENT STATION JERSEYS

Twenty-three Years of Tuberculin Testing

A. C. DAHLBERG, NEW YORK

MOST dairy herds have had some experience with tuberculosis and the New York Experiment Station is no exception. The details of the infection and its eradication have been published in a bulletin by this station and several addresses upon the subject have been given by George A. Smith under whose supervision the herd was freed and maintained free of the infection. Last year the tubercular history of the herd was summarized and published in a recent popular bulletin and the information in this bulletin served as the basis of this article.

The establishment of a herd of Jerseys at this experiment station actually began in 1898 and 1899 with the purchase of fifteen cows from nine different herds in New York State. These cattle were carefully selected so that productive, healthy animals of good type would be obtained. They were not tested with tuberculin but their health was considered on the basis of their physical appearance. These animals, together with cows and eleven heifers raised the station, constituted the herd 1900.

During the fall of 1900, one cow had been purchased in 1898 lost ght so rapidly that her health rather doubtful. In November a l veterinarian examined her sically and pronounced her tu cular. She was slaughtered and nd to be infected with generalized erculosis. Rabbits which were inlated with the tubercular lesions milk from the udder developed eralized tuberculosis. It was evit that not only did this cow have erculosis but that the calves were g raised on milk containing ac tubercle bacilli.

hysical examination of the herd ed to detect any other cases of rculosis but there was little ot that other animals were infect For this reason all of the animals were more than six months of were given the tuberculin test. nteen of the twenty-eight animals he herd reacted. When post-mor examinations of the carcasses made in later years, the results he test were verified and found ect. Physical examination failed of any material value in detect the tubercular cattle.

he usual method of handling a rcular herd is to slaughter the ted cattle and replace them with hased or raised animals. The adbility of this procedure under age conditions cannot be questioned. A healthy herd of proper size was a necessity for experimental work at the station. The breeding of the diseased animals was especially good, and the expense of purchasing animals of equal breeding would have been rather great. To save this quality of breeding it was decided to replace the herd by the calves raised from both the healthy and the diseased animals. Therefore, in October, 1901, the herd was divided into a healthy herd and a tubercular herd. These herds were cared for according to the method originally devised by Professor Bang.

The tuberculin test record of the diseased herd, summarized in Table 1, is an object lesson for the present day in eradicating tuberculosis. It illustrates the danger of infection by the purchase of cattle from tubercular herds, even though the cattle pass the tuberculin test. This tubercular herd consisted of seventeen animals that had reacted to the test. One of these animals in October, 1901, did not react to the second test. In December, 1903, only two out of the remaining six tubercular animals reacted to the test. A total of sixty-four tests were made on the seventeen tubercular cattle and only fifty-three reactions were obtained. Examination of the carcasses of these animals and inoculation of rabbits with the lesions of some gave positive evidence that every animal was infected with the disease. The authorities in charge of the tuberculosis eradication work recognize this condition and it is largely responsible for their slogan "Once a reactor; always a reactor".



KING'S ST. LAMBERT FANCY

The first pure-bred bull owned by the Geneva Station. He is one of the few reactors to the tuberculin test that showed no lesions when slaughtered.

Table 1—Tuberculin Tests on Isolated Tubercular Herds

Date tested	Total number tested	Number of failures to react
1901, October	17	1
1902, June	14	0
1902, December	8	1
1903, December	6	4
1904, May	7	1
1904, November	6	2
1905, November	6	2
Total	64	11

This limitation of the tuberculin test has been frequently mentioned in the literature and is usually explained as being due (1) to failure of badly diseased animals always to react, and (2) to the encysting of lesions which actually separates the tubercle bacilli from the body tissues. These explanations do not interest the farmer so much as does the fact that these animals are or may become dangerous spreaders of the disease. Cattle should not only be given the tuberculin test before putting them into a herd free from the disease, but they should also come from tuberculosis-free herds if one wishes to take special precautions in protecting his herd.

The cattle that passed the tuberculin test constituted the healthy herd and were isolated and protected against re-infection by the diseased animals. Calves of both healthy and diseased animals were handled according to the Bang method and placed in the healthy herd. The tuberculin tests of the isolated healthy herd are given in Table 2. After six months of isolation, four more animals reacted to the test. They represent the animals that were exposed to the disease at the time of the first test and had contracted it before the second test.

In 1904 a cow reacted and when she was slaughtered tubercular lesions were found. This cow had been purchased the previous year from a tubercular herd, but she passed the test and was placed in the herd. Her history illustrates again the danger of buying animals from infected herds even though they pass the test. In 1905 another cow reacted to the test and was immediately removed from the healthy herd.

The healthy herd, which had been successfully raised from a diseased herd, had now increased to the desired number. The six remaining animals in the diseased herd were slaughtered in 1905, and all were found to have tuberculosis.

Maintenance of a Tubercular-free Herd

Too large a percentage of cattle owners have failed to recognize the fact that protecting the herd against re-infection is just as important as testing for tuberculosis. The natural tendency is to think that the work is done for all time to come after the herd has been tested and the diseased animals slaughtered. The belief that testing the cattle once a year and slaughtering any reactors would free any herd of the disease regardless of the general farm practices is erroneous. The literature on bovine tuberculosis contains numerous instances of failure under such conditions, while definite precautions for the prevention of re-infection are recommended.

The first tuberculin test on the Station herd after there were no tubercular animals on the premises was made in 1906. The results of the tests from 1906 to 1923, inclusive, are given in Table 2. A total of 673 tests were made during this period and only three positive reactions were obtained. Assuming that these three reactors were tubercular, the number of tubercular cattle in the herd has been a negligible quantity. Post-mortem examinations, although very carefully done, did not reveal any tuberculosis in two of the animals, and animal inoculation with their tissues failed to produce tuberculosis. It can be truthfully said that since 1905 there never has been a proved case of tuberculosis in the Station herd.

The first reactor was a bull which had passed the test in 1914 but gave a typical temperature curve in 1915. He was isolated according to the Bang method and kept for three years. He never gave another reaction, although tested in three subsequent years, and careful post-mortem examination failed to reveal any tubercular lesions. In 1919 a heifer born and raised at the Station gave a temperature reaction and was immediately slaughtered. No tubercular lesions could be found. In November, 1922, a three-year-old cow gave a very typical temperature reaction, but both the intradermal and ophthalmic tests were negative. Ninety days later she passed all three tests and a year later she gave negative results again. Whether the first two animals were tubercular can never be established beyond all doubt, but it is probable that they were healthy and the test was at fault with them just as it must have been at fault with the cow tested in 1922.

For the sake of argument it may be assumed that the test was at fault in all three cases. How accurate and reliable has this tuberculin test been in the Station herd? In the tubercular herd maintained from 1901 to 1905, it was not especially accurate, as it gave a false report in 11 out of 64 tests. The tuberculin tests selected out all the tubercular cattle from the general herd in two years, namely, 1900 and 1901, which is a remarkably fine record. In 1904 and 1905 it showed two other cows to be tubercular and lesions were found in their bodies. In 1915 and 1919, two animals that reacted were probably not tubercular, while in 1922 the test on one cow contradicted itself. Since the healthy herd was established in October, 1901, it

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OXFORD CAREY B B

She has been tested with tuberculin for 13 years and has never reacted. When this picture was taken she was finishing a record in excess of 600 lbs. butter in ten months on two milkings per day.

Organizing New England Dairy Farmers

W. F. SCHILLING, MINNESOTA

I HAVE just read with unusual interest the three articles and the editorial relative to the New England milk organization, and I am deeply interested, for the success of one co-operative always helps another.

From the viewpoint of hard experience I see absolutely no excuse for having separately owned and federated plants as outlined in the minority plan. The Twin City Milk Producers' Association tried this plan and was quick to see that for efficiency it had to be abandoned in short order.

We were confronted at the outset by the fact that a bargaining organization was a fizzle and then the next step was to have at least two places to sell our milk,—either to the dealer or to butter, cheese, or other by-products. We had in our communities cooperative creameries on every hand and we immediately rented these from the local boards of directors and then thought we had our problem solved. It was solved for a few moments and that was all. Our rental basis was agreed upon by a disinterested board of appraisers who ascertained the value of the plant and we paid a rental on a basis of ten per cent per annum of such appraisement.

Our troubles soon started. First, at one plant a new boiler of a larger type was wanted. Who was to put it in? The owners of the plant held a meeting and nothing was done. They did not know where they were going to get the money to do the job and you know the result—nobody would do a thing. In the meantime the Twin City Milk Producers' Association was losing money for the lack of action on the part of the old creamery board.

The very next thing was a whey separator wanted at a plant that was making a lot of cheese. The cream in the whey would pay the running expenses of the factory. It cost $800 to get the separator. Who was going to dig up? Just nobody and this and a lot more local troubles in local communities made us see that the plants must be under one head and one management if immediate and efficient action was to be had.

We were operating eleven plants in this manner and eleven different boards to deal with. If we wanted to take a vat or cooler out of one plant where it was not in use to put it in another plant that needed it, the owners said "nothing doing" and as the board would not purchase the needed equipment we, to save waste, purchased the necessary machine and installed the same at our own expense. Then there was a feeling that no one knew which was "tother" and there never was the right feeling.

To us the remedy was to have a central ownership and in a short time meetings were held and the plants appraised for sale and stock in the Central was exchanged for stock in the plants and all outside stockholders paid off in cash.

Today we are operating two condenseries and thirteen as good creameries as can be found anywhere. An efficiency man looks after the machinery in all of the plants, which at the farthest are not more than seventy-five miles apart. The separators and vats and other machinery are interchangeable at a few hours' notice and thousands of dollars are saved annually by having all equipment under the supervision and ownership of one central head.

Each plant has its plant manager who is responsible to the central office daily for the make of the products of his factory and the accounting for the milk that goes through his plant. An expert of unquestioned ability is in charge of the manufacturing of our products and a laboratory takes care of the testing of all churnings of butter, cheese, condensed milk, etc. Thus central authority and central inspection and grading keep the local managers on their metal to do the best. Only the best grade of butter is made and is kept to a certain standard. Just how could such authority be delegated to a dozen farmer boards of directors and get results?

Our members in fifty-eight communities are served by one large truck that carries butter, cheese, etc., from place to place so that our 6,129 members may get their own products for their tables whether they are living next to a milk station or a cheese factory.

Mr. Cance, in his article, takes pains to mention the failures but forgets to mention the successes in the centrally operated plan. He mentions the Milk Producers' Association of Chicago. That never was anything but a bargaining organization and that and the Chicago Marketing Co. were always in a fight to see that neither did a thing for the farmers. The Dairymen's League of New York has only operated on the pooling plan about two years, and like at Chicago there is the anti-pool crowd doing everything possible to hinder rather than help to make a real low per cent marketing organization.

The centrally controlled has everything in its favor. What will happen if one of the groups gets it into its head that its big man should be the whole thing and others say no. This group immediately pulls up stakes and goes down to the market and offers milk at fifteen cents per hundred less than the big concern. Then what happens? The little bunch of antis makes the price for all the milk of the territory. The farmers soon lose hundreds of thousands of dollars all because they do not co-operate to save their industry.

Mr. Cance also states that "the open price associations have brought about much more satisfactory conditions in the trade in many instances." Why shouldn't they? They harm no one. The dealer does not fight them as they are harmless and toothless. If the dealers told them that they would give them $1.50 per hundred for their milk they would have to take it or drink their milk. The dealers always encourage such organizations as they take the place, temporarily at least, of real marketing organizations.

The oldest and, pardon me if I say it, the most successful milk marketing organization in America is the Twin City Milk Producers' Association. It will be eight years old in September. It has been through the mill. It has been handling over twenty-five million pounds of milk a month this summer. It has proven its worth to the producer, consumer, and distributor alike. It is under central control and would not go back to the local control under any conditions.

Isn't it with great local pride that the producers look upon a local milk plant, though it be owned by all the farmers of the milk territory? Isn't it the best thing in the community? Won't it insure the farmer a steady market for his product? Isn't he independent of any distributor? It can not be moved and no matter what happens to the Central in after years isn't it the property of the community?

I have visited two hundred and fifty-five cities in America of over ten thousand population. I have studied conditions about all of them with one thing in mind—milk marketing. New England is no different than all the rest. Her problems are the problems. A central control organization will work in New England if the farmers there want it to work. Eighty per cent will get behind on contract, use what plants they have at present, and augment these with others as conditions warrant and get out and shout for the cause, it will win. I would not be afraid of the milk dealers; it is the farmers who always spoil their own game.

If unselfish leadership will work for the cause of the milk producers in New England, and I believe they will and suspicions and jealousies are put aside for a few years, I have no fear of the result.

Unfair Overrun Competition

The Twin City, Minnesota, Milk Producers' Bulletin gives the following good discussion of the unfair competition put up by creameries that claim excessive overrun:

"The most difficult thing we have to deal with in the butter part of our business is unfair competition from creameries that are paying more than it is consistently possible to pay. Take, for instance, the month of June in which we paid 45c for butterfat. Some creameries paid more than this. Now here are the figures. The average for 92-score butter in New York for the entire month of June was 41.4c. The average overrun which it is possible to receive, according to the Albert Lee State Creamery, is about 22%. Adding 22% to 41.4c, we have a total of 50.5c, which is the highest possible price under actual creamery conditions that could be received for butterfat in the form of extra butter delivered New York.

The average transportation charge from our creameries to the market is 1.8c. The making, which includes the running of the factory, tubs, power, etc., costs 3½c per pound and there is a selling charge of ¼c per pound. This makes a total charge of 5.55c per pound of butter made and delivered on the market. Subtract this from 50.5c, the average price paid for good butter, and you have 44.95c.

"This assumes that there is no mechanical loss in separating milk and it is a well known fact that all skimmilk contains at least 7-100% fat when it is properly tested. This also assumes that every pound of the butter is 92-score and that it is all delivered in carload lots at the lowest possible rate under ideal conditions.

"We were able to pay the 45c only because part of our butter sold at a premium over 92-score butter. Some of our butter scored 93 and some 94, and on this we had a premium, which allowed us to pay 45c per pound.

"If any creamery paid more than this, it must have had a better outlet for butter than was afforded by the Minnesota Co-operative Creameries Association, representing over 400 creameries, or else it secured an abnormal overrun by improper weighing and testing. Many buttermakers brag about securing from 25% to 30% overrun. It appears that the American farmer likes to be buncoed. He is looking for the highest price regardless of honest dealings, on both milk and cream, and there is naturally a great temptation to give him what he wants.

"Our average overrun for the entire year will be just about 22%. We know that if it is less, we are inefficient, and if it is much greater, that there is something wrong with our methods."

Colorado Holstein Breeders' Meet

Pat Donley's Deer Lodge ranch, near the village of Larkspur, Colo., was the scene of a good time Saturday, August 2nd. The occasion was the event of the Colorado Holstein breeders' annual basket picnic.

Long before noon parking space was at a premium on the picnic grounds. Over 200 people were present from every corner of the state.

The big event of the day was a drawing for the registered Holstein heifer that was furnished by the Colorado State Association, bred by the Colorado State Home, and was out of an 18-lb. two-year-old daughter of their great proven bull, Prince Ormsby Lad. This was an excellent calf and was won by Dr. Geo. H. Carr, vice-president of our state association. He immediately donated it back to the association and it was once more drawn for and this time won by Miss Ilda Churnside.

The board of directors also held a very important business meeting and a number of important things were passed upon for our program for the next six months. One of these was the decision to hold a stock show sale at the National Western Stock Show next January of about twenty-five or thirty high class animals that are from good record cows and are fit to show individually. This sale will be held under the auspices of the association and a committee was appointed to select the cattle.

The board instructed the secretary to have a Holstein booth at our State Fair at Pueblo and also at our National Western Stock Show in Denver. It was decided to continue our advertising and the secretary was instructed to give $50 to the State Fair for boys' and girls' club work.

PAUL V. PATTRIDGE, Sec'y.

National Dairy Show Prize

A total of $28,000 in prizes will be offered the winners this year, in addition to ribbons, cups, and special prizes offered by associations and individuals. Among the specials offered are four trophies by the American Guernsey Cattle Club, including the G. G. Hartley silver cup and the Peer challenge cup. John Bell, Jr., has offered a $1,000 bronze trophy to be awarded for the best three generations of Holstein females, regardless of age. Mrs. Nellie Fabyan, Illinois, has offered three prizes totaling $175 in gold to herdsmen, in addition to three medals offered by the National Dairy Association.

Entries are now being received in the office of the Dairy Show. The entries will close on Sept. 6, and those not in the mail by that time will not be accepted. Grade cow entries will close on the same date.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Minn.	Pine Co.	July		67.3	C. E. Carlson
"	Blue Earth 1	"	R. H.	72.7	J. Johnson
"	Martin 2	"	G. S.	55.9	W. Behrens
"	Cannon Val.	"	R. H.	65.9	E. A. Dibble & Son
Penn.	York Val.	June		104.6	G. F. Livingston
Ida.	Ada Co.	July	R. G.	58.8	H. A. Wines
Ind.	Spenc.-Perry	"	G. J.	85.4	Pattie & Aders
"	W. Hamilton	"	G. J.	84.2	B. C. Johnson
Ia.	Floyd Co. 1	"	G. H.	59.4	J. Binger
"	Dubuque 3	"	G. J.	77.0	C. A. Hamil
"	Fayette 1	"	G. G.	57.4	G. A. Busse
"	Jefferson Co.	"	G. J.	61.5	W. E. Conard
Ill.	McLean D. I.	"	G. J.	68.2	F. S. Leach
Kan.	Washington	"	R. H.	79.9	H. Hatesohl
Vt.	Cen. Orange	"	G. J.	64.9	J. Beck
Ohio	Tri-Co.	"	R. J.	88.8	Black & Sons
Ore.	Columbia	"	G. H.	76.9	Ulidmer Bros.
Utah	Rich.-Lewiston	"	G. H.	67.9	N. F. Bullen
Mont.	Bitter Root	"	R. H.	80.0	Ford & Hollister
S. D.	Sioux Falls	"	R. H.	91.2	State Penitentiary
"	Hamlin	"	G. G.	56.5	F. Sour
Va.	Pr. William	"	R. J.	67.7	Clover Hill Farm
Mich.	Leelanau	"	R. H.	72.9	R. Lautner
"	No. Allegan	"	G. H.	63.3	B. Ter Haar
"	Ottawa	"	G. S.	65.6	J. Kishman
"	Delta Co.	"	G. H.	57.3	W. Knaus
Wis.	Marion	"	G. G.	76.8	H. C. Much
"	Colfax	"	R. H.	56.5	Helberg & Anderson
"	Coon Val.	"	H.	65.8	
"	Rockfield	"	R. H.	69.1	P. J. Bast
"	Mt. Hope Lancaster	"	R. J.	72.9	P. J. Braudt
"	Denmark	"	R. H.	72.3	L. J. Larson
"	Elroy	"	N.	59.3	E. Kimball
"	Mon.-Gil.-Modena	"	G. J.	69.1	O. Heck
"	West Bend	"	R. H.	68.4	J. Worlamers
"	Reeds.-La Valle	"	G. H.	63.4	Smith Bros.
"	C. Monroe	"	G. G.	75.8	E. Baumbach
"	Cross Plains	"	R. H.	64.9	G. P. Nace
"	Arcadia	"	G. H.	59.3	W. F. Rosenow
"	Hol.-Morrison	"	G. G.	65.2	W. C. Lemke
"	Pew.-Sussex	"	R. H.	80.9	A. F. Bennett
"	Merton	"	G. H.	75.9	H. Schlicher
"	Waukesha	"	R. H.	72.5	Swartz Farm
"	Gen.-Eagle	"	R. J.	64.4	W. Knight
"	Hart.-Ocono.	"	R. H.	63.5	A. Finkler
"	Musk.-Ver.	"	R. H.	57.2	H. Christison
"	Westby Jer.	"	G. J.	64.9	Fremstad Bros.
"	Ham.-Baldwin	"	G. H.	60.9	H. Fern
Mo.	Greene Co.	"	G. H.	58.2	S. A. Farmer
"	Cass Co.	"		71.2	
Md.	U. Montgomery	June	R. H.	106	M. Rice

Association Notes by Testers

Blue Earth Co. No. 1, Minn.: Sixteen cows were culled during July. One new separator was purchased. Four cream cooling tanks were installed. The creamery paid 44—46 cents per lb. for fat.—E. L. Smith.

Martin Co. No. 2, Minn.: One member purchased a new separator. Another purchased a milking machine. Corn and alfalfa are growing very well. A number of members are feeding grain where pastures are short. The creamery paid 46 cents per lb. for fat in July.—H. A. Anderson.

Floyd Co. No. 1, Ia.: The high cow, owned by John Binger, produced an average of 40 lbs. fat last month. The 314 cows tested in the association averaged 27 lbs. fat. Eight farmers fed grain and many more should. Two new separators were bought in July. Fourteen farmers are spraying cattle. Milk sold to the ice cream plant brought $2.40 per cwt. The condensery paid $1.50 per cwt. Milk retailed for 10 cents per quart.—J. B. Day.

Fayette No. 1, Ia.: A few new silos are ready to be filled this fall. One farmer installed a milking machine and is buying more cows. There are 9 milking machines in use on the route.—C. White.

Jefferson Co., Ia.: All separators were found to be skimming satisfactorily. Herds fed grain averaged 27.38 lbs. butterfat; those not fed grain, 22.44 lbs. The creamery paid 42½ cents per lb. for fat.—O. Constable.

McLean Co. D. I. A., Ill.: Sudan grass for summer pasture is being tried by several members who find it quite satisfactory. However, care should be taken to allow the cows to be on it only long enough to eat and kept out entirely in wet weather as they tread it up and waste considerable.—H. R. Fletcher.

Washington Co., Kans.: Native pasture is becoming poorer and farmers are falling back on sudan grass for late summer pasture. The co-operative creamery again paid 7 cents above station prices for fat and maintains its own fleet of trucks to gather the cream. Fred Stigge, who has a herd of 8 registered and grade Holsteins, had the high herd average for July of 45.6 lbs. fat. The co-operative creamery paid 35 cts. per lb. for fat; stations, 27 cents.—H. G. Lenhert.

Tri-Co., Ohio: The average production of 220 cows tested in July was 645.6 lbs. milk and 31.8 lbs. fat. One member began Register of Merit testing. Most of the milk in this association is retailed locally. The corn crop in this section is late and must be put in silos to be saved from the frost. Market milk sold for $2.30 per cwt.; 20% sweet cream, $1 per gallon. Milk retailed for 15 cents per quart.—E. A. Mizer.

Columbia, Ore.: Production is low owing to continued dry weather. Market milk sold in Portland for $2.10 per cwt. and retailed for 10 cents per quart. The cheese factory paid 44—46 cents per lb. for fat; the creamery, 38 cents.—W. T. Noble.

Stanislaus, Calif.: This is the first month of testing in this association since the foot and mouth epidemic hit this county. Feed is short in the heavy dairy sections and prices of feeds are very high. Butterfat in whole milk is 50 cents by the M. P. A.—F. Lieberam.

Hamlin, S. Dak.: One member erected a silo. Four defective separators were found. Two herds were tested for T. B. One member and two of his neighbors signed the accredited herd agreement to have their herds tested for T. B. The creamery paid 36 cents per lb. for fat. Milk retailed for 8—10 cents per quart.—F. E. Hanson.

North Allegan, Mich.: Small grains and hay are excellent in this section.

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Let's talk it over, say the members of the Middleton, Wisconsin, Cow Testing Association as they gather with their families for an association picnic on the farm of August Krey. And so the good done by this organization is multiplied. On the program were K. L. Hatch and A. J. Cramer of Wisconsin College of Agriculture. Judging contests for adults and calf club members were held.

Spend a Week in Dairyland

Daily Program of Events:

SATURDAY, SEPTEMBER 27TH—
Exposition opens at Fair Grounds.
College Students' Contest in Judging Dairy Cattle.
Factory Machinery and Supply Exhibit opens. Milwaukee Auditorium. 10 A. M. Free to Public.

MONDAY, SEPTEMBER, 29TH—
College Students' Contest in Judging Dairy Products.
Boys' and Girls' Contest in Judging Dairy Cattle.
Grade Cow Judging.
International Association of Milk Dealers' Convention opens.
American Dairy Science Association Meeting.
City Milk Dealers' Day.
National Farmers' Cattle Judging Contest.

TUESDAY, SEPTEMBER 30TH—
Guernsey Cattle Judging, Fair Grounds.
Grade Cow Sale begins.
National Creamerymen's Conference.
International Assn. of Milk Dealers' Conference.
American Dairy Science Assn. Banquet.
Creamery Operators' Day.
Dairy Pioneers' Day.

WEDNESDAY, OCTOBER 1ST—
Holstein Cattle Judging, Fair Grounds.
International Association of Milk Dealers' Convention closes.
American Dairy Federation Meeting.
Cheese Factory Operators' Day.
National Cheese Ass'n. Meeting.
Illinois Day.
National Dairy Farmers' Conference.
Milwaukee Day.

THURSDAY, OCTOBER 2ND—
Jersey Cattle Judging, Fair Grounds.
Ice Cream Factory Operators' Day.
Ice Cream Manufacturers' Meeting.
Michigan Day. Minnesota Day. Wisconsin Day.

FRIDAY, OCTOBER 3RD—
Ayrshire and Brown Swiss Cattle Judging begins at Fair Grounds.
Judging Boys' and Girls' Club Calves.

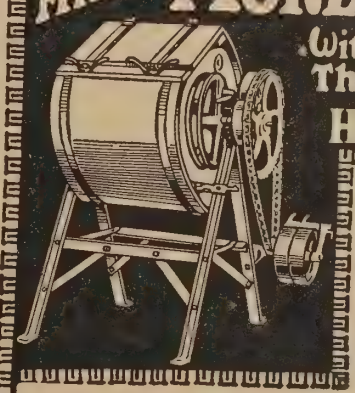
SATURDAY, OCTOBER 4TH—
Final Day.

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National Dairy Exposition

MILWAUKEE - - September 27--October 4

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EDITORIAL COMMENT



THERE is an old Yankee saying which describes false economy by telling of certain people "who would skin a flint for a sixpence and spoil a knife worth two shillings". Dairy farmers who keep twenty cows on starvation rations when ten good cows properly fed would produce as much or more milk as the twenty cows poorly fed, belong to this class.

FREE PRESCRIPTIONS

It is rather amusing to find men in the city prescribing for the ills of agriculture. Merchants and manufacturers, many of whom have no idea as to what constitutes good farm practices, are offering advice to the farmer and admonishing him in some of what they consider extravagances. Not long since a merchant declared the farmers' conditions would be better when they milk more cows, diversify more, and drive fewer automobiles.

There is a lot of bunk in this kind of advice. It is true, taking it by and large, farmers that diversify are the ones who make the most money and that it is the safest and best system of agriculture to follow. We do not consider it wise at the present time to enlarge our present number of cows but we rather believe it is in order to sell some of the poorest ones to the butcher and feed the remaining ones better.

As to automobiles, what class of citizens is more entitled to an automobile than the people who live in the country? The average city man has to drum up excuses oftentimes for buying a car when he can't afford one. The farmer's occupation is such that unless he is too heavily in debt he is justified in borrowing money to buy himself a car. He and his family are entitled to it. It is not a luxury on the farm but comes mighty close to being a necessity. Without doubt some farmers have bought more cars than they should and a few, perhaps, have been so situated that they shouldn't have bought a car, but to hold that agricultural conditions would be improved if the farmers would deny themselves automobiles is just plain, unadulterated bunk.

THE COW DID IT

Elsewhere in this issue we publish a brief story of the New Salem circuit. It is a history of a group of farmers who settled at New Salem, North Dakota, in 1883, when North Dakota was still a territory. These men felt that wheat growing in this section of scant rainfall was too uncertain and they soon began to milk cows. In 1896 they built a creamery and from that time to this its doors have been open. In 1910 they formed a cow testing association and later a bull association. Through organization these men have built up a strong agricultural community. They have developed a community spirit, they have learned how to co-operate, and the advantages which have come to them have been all that the most ardent advocate of co-operation could conceive.

It will be noted that the average gross income of the members of this New Salem circuit for 1921 for butterfat amounted to $1,107.91, over $1,000 in 1922, and $1,621.95 in 1923. There are herds in this circuit that produced in 1923 on an average of 410 lbs. fat per cow. The value of applying the scale and the Babcock test to every cow in the herd is shown by the improvement which one member's herd has made during the past fourteen years. In 1910 this member owned 17 cows that averaged 131.9 lbs. fat for the year. The return per cow above cost of feed averaged $16.90. In 1923 twelve cows averaged 303.4 lbs. fat and returned, above cost of feed, $82.74 per cow. In other words, the profits of one cow in 1923 were almost equal to 4 cows in 1910.

Read the brief story of the New Salem circuit which has been prepared under the supervision of Professor J. H. Shepperd, organizer of the circuit and chairman of the Animal Husbandry Department of the North Dakota Agricultural College.

NATIONAL DAIRY SHOW

The National Dairy Exposition, which will be held in Milwaukee September 27 to October 4, will have one of the best educational exhibits ever presented to the American dairy farmer. More attention is being paid to the grade cow and the importance of selecting good cows than at any previous show. Mr. A. J. Cramer outlines three interesting and educational exhibits which will be made by the Wisconsin Dairymen's Association at the National Dairy Show. They are as follows:

No. 1. A registered Holstein bull, named "Cedar Lawn Canary Paul 6th", 10 years old, will be exhibited with 10 of his registered and grade daughters that have produced 1,758 lbs. more milk and 84 lbs. more butterfat per year as heifers than their dams as mature cows. The expense of this exhibit, taken from members' herds in the Allenton—Kohlsville C. T. A., will be borne by the Holstein-Friesian Association of America.

No. 2. A group of six cows representative of a varying production, as follows: 1. The average U. S. cow with 160 lbs. fat; 2, the average Wisconsin cow with 190 lbs. fat; 3, the average Wisconsin C. T. A. cow with 273 lbs. fat; 4, the highest Wisconsin C. T. A. average cow with 341 lbs. fat; 5, the highest Wisconsin C. T. A. herd average with 534.5 lbs. fat; and 6, the highest producing Wisconsin C. T. A. cow with 839 lbs. fat.

No. 3. A group of ten grade Guernsey and Jersey cows showing that continued testing pays over a period of 3 or more years' membership in a C. T. A. is likely to be on exhibit. This herd's average was increased from 265 lbs. fat to 395 lbs., or an increase of 130 lbs. more fat per cow.

ORGANIZING NEW ENGLAND DAIRY FARMERS

On page 150 of this issue will be found a communication from Mr. W. F. Schilling, president of the Twin City Milk Producers' Association of Minnesota, pertaining to articles which we recently published regarding plans of organizing the New England dairy farmers. He points out the success of the Twin City Milk Producers' Association and holds that it is essential that a co-operative marketing company, handling fluid milk, should own its plants rather than have them owned by the farmers who take milk to them.

We have supported and approved the plan of organization of the Twin City Milk Producers' Association and have held it to be one of the very best plans of organization in the country. It was formed chiefly for the purpose of serving the producers who supply Minneapolis and St. Paul with fluid milk. It owns its creameries, cheese factories, and condenseries which we consider sound, for through them the surplus milk can be taken care of. We do not believe these institutions should be owned by a group of farmers within the organization but rather by the producers' association formed about a city for the purpose of handling and marketing their milk.

But, there is a heap of difference between an association which cares for the milk supply of a city produced by a few thousand farmers and a state-wide organization consisting of 125,000 to 150,000 members and which must take care of all the milk used for direct consumption and for making butter, cheese, etc. One is a relatively small unit capable of being managed economically, and the other is a very large organization covering a wide territory with numerous conditions and various opinions to deal with. The leaders in dairying in Minnesota have recognized this and Mr. Schilling is one who has favored the plan of federating the local co-operative creameries of Minnesota and operating the Twin City Milk Producers' Association as a separate unit.

We see no reason why the farmers who produce milk for Boston and the other large cities in New England should not each form an organization similar to that of the Twin City Milk Producers' Association and let the creameries in Vermont and in other states of New England form a federation upon the same plan as is followed in Minnesota. While the dairy industry of New England is not quite so large as that of Minnesota, it is big enough, to our way of thinking, to warrant organizations comparable to those of Minnesota. There is no disagreement between Mr. Schilling and us concerning the plan of organization of the Twin City Milk Producers' Association and the plan of organizing the creameries of Minnesota. Mr. Schilling holds that conditions differ in the New England States with those in Minnesota and therefore a central organization is the better one to form.

Let us make a comparison between Minnesota and the New England dairy industry. Minnesota consists of a little more than 87,000 square miles of territory and New England a little better than 67,000 square miles. According to the 1920 census report, Minnesota has 144,948 farms keeping dairy cows and New England, 124,024 similar farms. Reports show that in 1923 Minnesota had 1,641,000 cows and New England, 1,084,000 cows. The Twin City Milk Producers' Association has 6,129 members and occupies a comparatively small territory around the Twin Cities.

The only difference between our method of organizing the dairy farmers and those who would form a centralized plan is that we would form a strong co-operative marketing company around each city and on the plan of the Twin City Milk Producers' Association. We would then proceed to federate these various groups into one organization; then federate the local creameries and the local cheese factories, but each in separate organizations.

We are not opposed to the centralized form of organization but we prefer the local organizations federated into groups, as we believe this system of bringing the producers together is more likely to succeed than the centralized form of organization. When we build a business unit beyond a certain size, it becomes too large and unwieldy to handle efficiently, especially when it covers a territory with innumerable conditions to meet. We know the history of the Twin City Milk Producers' Association and that it took all of the management that could be mustered into service to bring it to its present enviable position. It has only 6,125 members out of the 144,000 men keeping cows in Minnesota. The Minnesota Co-operative Creamery Association is likewise using all the talent it can secure to federate about 400 of its six hundred and fifty odd co-operative creameries for the purpose of mutual benefit and to make a uniform quality of butter and to market it. These two organizations, the Minnesota Co-operative Creameries' Association and the Twin City Milk Producers' Association, do not encompass more than half of the dairy industry of Minnesota.

To summarize:

To organize the farmers of each state, we believe the local co-operative creameries should be federated into groups similar to the plan in Minnesota and the local co-operative cheese factories federated in a similar organization. Then the co-operative milk marketing associations can be formed around each city and these can also be federated. When several states shall have so organized the various branches of its dairy industry, there is no reason, then, why there cannot be formed a federation upon a national basis. We desire the same results as those who would form state wide organizations on a centralized plan but we believe we are more likely to succeed through the formation of local co-operative institutions federated than by any other plan which has been suggested.

We must not forget that not one-half of the dairy farmers in any state, unless it be Minnesota, desire to join any co-operative society, and this is a strong reason for building state-wide organizations upon local units federated.

Ice Cream Recipe

I wish a recipe for good, rich, home-made ice cream that is hard enough to stand up for use in a roadside stand. I have been using the following recipe for 2 gallons: 2 qt. of 30% cream, 8 eggs, 3 lbs. sugar, 1½ qts. milk, ½ oz. Knox's gelatine, flavoring to suit taste. The cream is not hard enough. What shall I change? Shall I use less cream or more gelatin? Is there anything cheaper or better than gelatine which costs 25c per oz.?

Knowlesville, N. Y. J. H. P.

The above mixture will not give an unusually rich, home-made ice cream as your correspondent indicates. This mix has a fat content of about 11%. The complaint that this ice cream does not stand up well enough can be remedied partly by increasing the fat content and partly by increasing the amount of gelatine.

I would suggest that in this mixture you use 2½ to 3 quarts of 30% cream and correspondingly less milk. The gelatine should be increased to ¾ oz., or if that does not give a firm enough ice cream, increase it to 1 oz.

The price paid for the gelatine, namely 25c per oz., is very much too high. Gelatine can be bought from gelatine manufacturers at a price in the neighborhood of 50c per pound, varying with the grade of the gelatine bought.

Wis. College of Agriculture. H. H. SOMMER.

Purchasing Tuberculin

Can tuberculin be purchased by farmers the same as vaccine for hogs? If so, where? If not, why not?

Cleveland, Wis. R. S.

Tuberculin and other biologics can be purchased by farmers at drug stores, from mail order drug houses, and certain biological manufacturers. However, many of the reputable biological firms will not sell to the laity. In the state of Wisconsin there is a law that requires every house selling tuberculin to be delivered within the state to report such sale, the kind of product, and the amount to the state veterinarian of the state.

In regard to shipping tuberculin interstate, the federal law specifies that it must be manufactured by a house that is under federal supervision and certain certificates shall accompany the shipment and be attached to the bill of lading. But there is no federal or state regulation against the farmer using tuberculin in Wisconsin.

However, when one understands the uses and abuses of tuberculin, we cannot conceive why any breeder or farmer would wish to be charged with the responsibility incident to its possession and use. He should take into consideration that possibly his motives would be impugned. We know that the use of tuberculin has led to certain abuses, such as plugging cattle against the test, and many feel that people who test their own cattle obtain a private survey, and often dispose of animals that may be reactors or suspicious to the test, other than through the regular channels; in other words, they are sold in the open market.

Every state in the Union at the present time is co-operating with the federal government on the tuberculosis eradication project, and anyone who desires a survey made on his herd relative to the existence of tuberculosis, may have competent and reliable service by petitioning the state or federal department for a test and placing his herd under federal-state supervision. This, without any cost to him; therefore we cannot see why anyone, other than those charged with the responsibility of administering tuberculin, should desire to use it.

There may be laws governing the use of tuberculin by the laity in some states.

JAMES S. HEALY,
Inspector in Charge Tuberculosis Eradication.

Milking Machine Teat Cups

Which type of milking machine teat cup is giving best results, plain or rubber lined? Which type is best on the cows?

Kenton, Ohio. R. P. J.

Milking machines have now been in practical and successful operation a long time. Many improvements have been made and milking machines are now considered a success, providing they are used on cows suitable for milking machines and they are operated by a person who understands the cows and the machines and knows how to intelligently co-ordinate them. Milking machines must be kept sanitary and the plant must be kept in good mechanical order. When these points are observed, milking machines will perform a final service for the dairy farmer who keeps at least 10 or 15 cows in milk all the time. For additional information, I would refer you to the different bulletins published on milking machines.

Within a certain range, no one type of teat-cup can be said to be the best. If everything is right and the plain cups are of the right size and the cow is not too hard a milker, equally good results will probably be obtained with the plain cups as with the rubber lined. Under all conditions, the rubber lined teat cups will give better average results than will the plain cups. Plain cups will do as good work under ideal conditions, but the rubber lined cups will do better average work under all conditions. Mechanically speaking, there is more action to the rubber lined cups than there is to the plain ones. This action on the side and end of the teats is so co-ordinated with the needs for milking that it gives the rubber lined cups some advantage.

The above statement is made on the assumption that the rubber lined cups are properly constructed in the first place; that there are no leaks in the rubber lining; that it is kept sanitary, and that the pulsator is properly set or adjusted in the machine wherever adjustment can be made. If there should be a leak in the rubber lined cups, if the inner rubber be old, hard, and cracked, and if the pulsator does not work properly, the rubber lining may become an actual damage to a milking machine; and under such circumstances a plain cup of the proper size and properly fitted to the cows will undoubtedly be better.

Broadly speaking, rubber lined cups, when in perfect shape, will give better results under the ful range of conditions than will plain cups.

As to which type of teat cup is the best on the cows, my experience is that either kind works satisfactorily; especially if the cow is an easy milker. With hard milking cows and with plain, hard cups, I think there is danger of forcing the teat completely into the teat cup in such a way as to prevent release. This condition is likely to stop the circulation of the blood and to produce a hard, fleshy condition and soreness at the end of the teat, and it is likely to wedge the teat so as to prevent free milk flow.

South Dakota College of Agr. C. LARSEN.

Mowing Weedy Alfalfa

Early this spring I plowed a tract to sow to Grimm alfalfa. Each week I disked and rolled the ground and a month before I seeded it I put on a thousand pounds of ground limestone per acre. I seeded it the 22nd of May without a nurse crop. I have a very good stand of alfalfa, but the wild morning-glory and lambs quarter or rag weed are covering the ground and I am afraid that they will smother out the alfalfa. Would it injure the alfalfa to mow it with the weeds in July?

Kalama, Washington. R. M. L.

I do not think you need to be unduly concerned about the heavy growth of weeds which is beginning to appear in your field of alfalfa. Young alfalfa will stand a very heavy competition with weeds, although it is very possible that weeds may become so thick as to smother out alfalfa. In your case, I think I would allow the weeds to grow until there has been some signs of blossoming. Then I would cut these weeds and on account of the morning glories, I think it would be well for you to cut them rather close to the ground. I am not acquainted with your weather conditions, but would suggest that if possible try to cut off the growth of weeds at some time when the cutting will be followed by rain to help give the alfalfa a new start. This is not entirely necessary, but I think it a happy circumstance to have rain follow the weed cutting process.

If the growth of weeds is very heavy it will be necessary for you to rake them up and haul them off the field. They can be left to dry, after which they are more easily handled. If they are not exceedingly thick they can be allowed to remain on the field but in those places where the surface of the ground is covered thickly the cut growth should be removed.

In many places where foxtail and barnyard grass give serious trouble, as is true throughout the middle west and eastern states, cutting close to the ground is quite essential to ward off a second growth of these common weeds. However, we must remember that cutting alfalfa the first year is not particularly beneficial. If anything, it is rather harmful and where the weeds are not too thick so as to seriously crowd the alfalfa, cutting is not advisable. It is a case where one has to use his own judgment, bearing in mind that only the real heavy growth of weeds is apt to crowd out and smother alfalfa. An ordinary sprinkling of weeds throughout the field is not apt to cause a great deal of harm.

In your case, as previously stated, I think that it will be advisable to cut the weeds, setting the mower bar high enough to get as much of the weeds and as little of the alfalfa as possible.

L. F. GRABER.
Wisconsin College of Agriculture.

Alfalfa Experience in Kansas

HOARD'S DAIRYMAN:—I consider the discussions on the growth and curing of alfalfa as one of the best series of articles you have published. Old alfalfa growers may need no instruction and to them the articles may not appeal. The new growers, however, can profit from these discussions and possibly save much loss by experimenting.

I first learned of the value of alfalfa many years ago from a distant neighbor who used it as a sole feed for his beef cattle and they were always in the best of condition. It was some 25 years ago that I seeded my first land to alfalfa. I sowed the seed the middle of August, using 20 lbs. of seed to the acre. Although I used no inoculation or manure, I secured a fine stand and cut considerable hay the following year, and the second year it grew a great crop.

The first year we cut it and allowed it to lie in the swath several days so as to get the juice out of the stems. The result was our hay was nearly leafless and was much like straw. However, the next winter the sheep preferred it to any other feed we then had. We then read Joe Wing's suggestions as to cocking it, but we made the cocks so large that they molded inside and after a big rain we tore the cocks apart and later put the stuff in a stack just to get it off the ground. We thought it was no good, but the lambs ate this hay readily and called for more. We salted this hay and it came out of the stack not half as bad as it looked when it went in. Someone has said you can't ruin alfalfa no matter how you handle it, and we began to believe this was so and increased our acreage to 20 acres.

We bought a side delivery rake, hay bucks, and and a swinging stacker. After the hay had cured a bit, we put it in the stack. Sometimes we would decide to make good hay and we would cock up some of it green. Rain would come and we decided that the cock wasn't worth while. Then we were told to make the cocks small and the result was a good quality of hay, even when the rains came.

Finally we concluded we knew just how to make good hay. We would usually cut the first week in June, usually mowing in the afternoon. The next morning, as soon as it was well wilted and the dew was off, we started the side delivery rake. After dinner we started a dump rake, bunching the hay in small bunches, not bringing the rake to the ground too quickly so as to leave 3 or 4 feet not bunched by the rake. My neighbor and I found that following this practice the two of us could cock 10 to 12 acres in a half day. We would then cut down more hay and forget about what we had put in cocks the day before. We would leave it in the cock for two or three days. If it rained, it wouldn't penetrate much if the hay was sufficiently green and the cocks were small enough. When a dry day came we merely turned the cocks over and hauled the hay to the barn. I would judge that these cocks held about 50 lbs. of hay each. It would seem to me that Professor Graber's recommendation of 80 to 100 lbs. is rather large, particularly if caps are not used.

I found that directly under the hay fork the hay would get moldy so I took two poles about 8 inches in diameter and laid them on the floor about 4 feet apart, and under the hay track. On these I nailed 2x4's crosswise and placed this under the mow. This overcame my trouble with moldy hay.

If I were to give hard and fast rules as to how to make alfalfa hay after my 25 years of experience, it would be as follows: For cows, cut the alfalfa as soon as the new shoots are well started on the crown, while for horses wait a week or two longer. Never mind the bloom stage for sometimes it won't bloom. Cut the hay during or just immediately after a rain. Don't wait for the weather to settle before you mow. If you do, the chances are it will rain about the time the hay is dry. If the weather doesn't clear up and the hay is damaged, the rain is sure to make another crop, so we wouldn't feel so badly.

When the alfalfa has wilted nicely, put it into cocks. If it is damp with dew or rain, make the cocks even smaller. When cured, haul in the hay and be sure to add about 1½ gallons of salt to the load.

Kansas. E. E. HAZEN.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $3.00 including postage.

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Sept. 14-20—Eastern States Exposition at Springfield, Mass.
Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.
Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.
Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.
Nov. 1-8—Pacific International Live Stock Exposition, Portland, Ore.

Purdue Dairy Club Cafe

Students competing on the Purdue Cattle Judging Team will conduct a first class dairy luncheon stand at the Indiana State Fair. The place will be known as the Purdue Dairy Club Cafe. We look upon this style of restaurant at our fairs as being advantageous to the dairy industry. It is a most opportune time to place before the consuming public the toothsomeness and wholesomeness of dairy products.

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

WASHINGTON, D. C., AUG. 19—The executive committee of the American Dairy Federation, at a meeting held at the office of the secretary on Aug. 19, decided to call a special meeting of the federation to be held at Milwaukee at 4 p. m., Wednesday, Oct. 1. This date is the date of the federation's get-together banquet, which is to feature the participation of this organization in the activities of Dairy Exposition week. The purpose of the special meeting will be to take action on several pending matters of business, including standards for dairy products, representation before the Tariff Commission in the butter tariff investigation, and appointment of special committees to report at the annual meeting to be held in December.

⚜

The officers, executive committee, and Standards Committee of the National Association of Ice Cream Manufacturers met with the Executive Committee of the American Dairy Federation at their session here last Tuesday. There was a full discussion of the proposed standard for ice cream which the ice cream manufacturers object to in several particulars. They asked the support of the federation in their objections. M. D. Munn was chosen as the representative of the federation to present the matter to the Joint Committee on Standards and Definitions. The principal question at issue is the amount of butterfat which ice cream must contain. The tentative standard which has been announced for discussion proposes twelve per cent and a total of 20 per cent total milk solids. The ice cream committee wants the fat content lowered and the other milk solids increased, making the fat content eight per cent minimum and the other solids 12 per cent. The Dairy Federation will conduct a referendum of all its members on this proposal.

⚜

H. J. Greenhalge of Chicago, head of the well known firm of accountants that is employed by many of the members of the butter industry, has been selected as consulting accountant for the butter tariff inquiry, by the U. S. Tariff Commission. He will assist R. D. Comer, chief investigator for the Commission in making the calculations designed to show the cost of producing butter in Denmark.

⚜

Expressing special approval and commendation of the progress already made in the establishment of the Bureau of Dairying, the American Dairy Federation Committee which met here the past week discussed at some length the further activities which might be allocated to this bureau, both now being carried on by the Department of Agriculture and some lines of new work which might be taken up if Congress should authorize it. As a result, a special committee was named to survey this field, confer with the Secretary of Agriculture, and report back to the federation as soon as possible. Dr. George L. McKay is chairman of this committee and other members include Professor Reed of Michigan and A. J. Glover, editor of Hoard's Dairyman. Another committee named at the meeting of the federation was authorized to urge the appointment of foreign agricultural attaches under the direction of the Secretary of Agriculture to secure needed foreign information for the benefit of agriculture such as is now enjoyed by other American industries. E. M. Bailey, chairman of the executive committee, was named as chairman of this committee.

⚜

Progress of co-operative marketing in the United States has attracted the attention of the British Ministry, now struggling with a problem of serious economic trouble among British farmers. As a result Professor Forster of Oxford has been sent to the United States to make a thorough survey of the methods in use here, and successes accomplished in order to find methods which can be applied to the relief of English agriculture, if possible. "Outside of the Rochdale co-operatives," said Professor Forster to your correspondent, "we can not say that co-operation has made any outstanding progress in England. Our marketing problem is very difficult as with the single exception of fluid milk, the markets are dominated by foreign products. We frankly do not know whether co-operative selling will solve our troubles or not. English farmers do not believe that the methods in use in Denmark—without criticising them at all—will meet our needs, because of far different conditions with us. Now we want to know the facts about the American co-operatives so we may judge if your methods will prove adaptable to our needs."

Oregon College of Agriculture has written officials of the National Dairy Show for information on tours through the Wisconsin dairy region. A delegation on a special train will come to the show, college officials assert.

Gold Medals Won by Ohio Jersey Herd

Charles A. Geyer of Ohio is the owner of two Jerseys which finished their tests within two days of each other and each of which qualified for gold medals. One of these, Justa's Jewel, commenced test as a mature Jersey and produced 12,986 pounds milk, 671.12 pounds fat in ten months. She carried a living calf more than seven of the ten months she was on test, which with her production won her a gold medal.

The other gold medal winner in this herd is La Oonan Queen. She commenced test at ten years, nine months of age and in ten months produced 13,288 pounds milk, 643.01 pounds fat. She carried calf almost seven of the ten months she was on test.—American Jersey Cattle Club.

Judging Dates

New York State Fair

Sept. 9—Holsteins—Judge, R. E. Haeger, Ill. Ayrshires—Judge, John Cochrane, Pennsylvania.
Sept. 10—Guernseys — Judge, M. T. Phillips, Pennsylvania.
Sept. 11—Jerseys—Judge, J. E. Dodge, New York. Brown Swiss—Judge, R. E. Haeger, Illinois.

Michigan State Fair

Sept. 2—Holsteins.
Sept. 3—Guernseys. Ayrshires.
Sept. 4—Jerseys. Brown Swiss.

Tide Water Cypress
"The Wood Eternal"



"He who looks before he leaps
Builds of Cypress and builds for keeps."

DAIRY uses demand *sound wood* at all points. Why build of lumber that invites decay? Or of any material that will disintegrate or rust out? *Isn't it wise* to use true *Tidewater* Cypress, the weather-proof, time-proof lumber?

Be sure your Cypress is the genuine Tidewater variety. You can identify it by the Arrow trade-mark shown below. It is your insurance of the lumber that is the recognized world's standard for all non-rot uses.

P. S.—Could you use some **Full Size Working Plans** for 3 barns, a poultry house, a hog-house, a double corn-crib, a SILO and a greenhouse — absolutely FREE? These come with the 72-page "VOL. 20" of the **Cypress Pocket Library** — yours *free* on request by return mail.

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INSIST ON TRADE-MARKED GENUINE "TIDEWATER" CYPRESS AT YOUR LUMBER DEALER'S. IF HE HASN'T IT, LET US KNOW.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Not Paying Fiddler

HOARD'S DAIRYMAN:—As I have een reading the arguments of New ork Teat Puller he sounds so much ke a braying ass. Will try to answer is annoying and insulting questions y saying to him on the first question iat he and others that ought to be aying part of the expenses, are not oing their part of paying the fiddler. o-operatively, his and their part are ie last of the selling and handling of ie milk products.

The answer to the second question like that unto the first and that is ey don't believe in co-operation with llow dairymen.

The third is still similar and mpler. Some of them are back-iders, as he would be. Maybe he uld be intelligent if he had the nse to see the wrong that he is ing others but he doesn't see the ong he is doing the dairy industry mself.

This answers all of his questions rfectly by the Missourian that sym-thizes with any honest, sincere, and asonable co-operator in the dairy lustry.

Please go behind the barn and k yourself for being a knocker of ur fellow dairymen's sincerity. ritten by a co-operative in the M. A. of Missouri.

Missouri. FERDINAND OTLAFF.

McKnight vs. Peterson

HOARD'S DAIRYMAN:—Mr. A. N. erson, in your issue of July 25th, rges me with evading an answer his statement that "not alone rent-values, but all values are created economic demand".

Economic demand, to my mind, ans the demand made by human ngs on the raw materials of na-e. Mere demand will not furnish the shed product, i. e., these raw ma-ials changed into articles of use, nfort, and luxury. Labor must be lied to these raw materials before demand can be satisfied, making finished product not alone the ee gift of God or Nature, but of r also. Many forms of finished duct can have great value to their essor without having any econom-alue. I may create great values myself by building a mansion on e far out of the way spot. These es may continue (minus deteriora-from the natural process of de-for a long time. If no one else es to my isolated spot no land al will arise, but should there be sh of population coming my way, omic demand would at once make value or rent to arise.

fter all his brave words and ges he has to (reluctantly, it s,) admit there is "an apparent rned increment of land values in centers of population". Might I him, if population increases and drift toward the centers of pop-on goes on, will there not be a ly increasing amount of un-ed increment produced? His il-ation of the "Israelitish horde ing a desert in which they creat-o land values" is open to criti-

While the general impression that these people were nomadic as permanency of residence is nsible for the arising of land yet as they were forty years going a comparatively short distance and were burdened with numerous cattle that required watering, it seems not unreasonable to me, that the immediate neighborhood of certain life-preserving oases acquired a great value. If, when they "afterward were fed on bread from Heaven and water from the smitten rock", their land was made subject to private ownership, the manna and water would be the private property of the owners of the land.

He states that the "2,000,000 Israelites on Manhattan Island and its environs add no more to the real estate values of New York City than their 600,000 to 2,000,000 ancestors added to desert values". I would advise him to get the opinion of some New York City East Side real estate agent on this question, or, if he will guarantee to get these 2,000,000 Israelites to emigrate down here to the eastern shore, I will guarantee to make him rich in 5 years, provided that the Commonwealth Land Party remains a minority party. The chain retail stores, who it is said base the rental of any desired location on the numbers (by actual count) of people who pass in a given time, probably have counted some of these 2,000,000 Israelites, but that would not bother them when making their offer of rent.

Mr. Peterson says "it is not the presence of population that makes land valuable, but rather the agricultural or mineral resources adjacent, fisheries, or the strategic position of a locality, that makes a large population possible." It seems to me, these things which he enumerates existed long before a white man set foot on Manhattan Island, and the only reason they have great value now, is because they are surrounded by 8,000,000 or more people—allowing for the collection from them, by owners of land, of $500,000 yearly. His illustration of the $24 originally paid by white men for the island, increasing at compound interest for 300 years as about equalling the land rentals of New York City may be correct, but is there not some difference in the results?

Having only spent 61 of my 64 years of life in Philadelphia, that would not take me back to the time when the land of Philadelphia was a howling wilderness, but I can recite hosts of instances where economic demand has greatly increased the rental value of land in some sections through increase in population, or, the falling off in rental value in certain sections owing to the drift of population. In my father's young manhood, the business section was at 2nd and 3rd Streets and there the highest rents were paid. He lived long enough to see certain of these stores, which still exist, reach a sale value not as great as their yearly rental value of his earlier days. In my early manhood, the section known as West Philadelphia was sparsely populated and the rent of land was low, but where cabbage and potato patches abounded then, residences and apartment houses solidly occupy the ground and the rent of land is high, almost, in some instances, as high as in the centers. Mr. Peterson asks the single taxers to "do a little straight thinking and we could see the specious fallacy of calling the profits coming to land owners as unearned."

Maryland. OLIVER MCKNIGHT.



Work that motors can do

On two out of five farms, a nation-wide Government survey shows, water for household use is carried by women. In the course of a year they carry tons of water.

Running water in the house—in the bathroom as well as the kitchen—is one of the conveniences that farm electrification has already brought to thousands of homes.

Electricity, that transformed the cities, has opened a new era of better farming.

The use of electricity in this country has quadrupled in ten years. To this wonderful development the General Electric Company has contributed more than thirty years of scientific achievement.

The new G-E Farm Book, giving interesting facts on the subject of farm electrification, will be sent on request. Write Section E, General Electric Company, Schenectady, N. Y.; Chicago, Ill., or San Francisco, Cal.

GENERAL ELECTRIC



ATTEND THE FRIENDLY SHOW

DAIRY CATTLE CONGRESS

A GREATER SERVICE to the dairy industry is the goal of the 1924 Show. Ever since the gates closed last year the management with the assistance of the educational forces of the state and nation has been busy planning an event that will eclipse any of its predecessors.

WHY DENY YOURSELF the great object lessons taught by the hundreds of exhibits and demonstrations that will profitably occupy your time every moment of the big week? Whether you live a hundred or a thousand miles from Waterloo you'll find it the best trip you ever made.

ENTRIES CLOSE SEPT. 8th

Sept. 22-28 — Waterloo, Iowa

REDUCED RAILROAD RATES—a round trip rate of a fare and a half from Iowa, Illinois, Wisconsin, Minnesota, North and South Dakota, Nebraska, Kansas and Missouri. Ask for certificate for return if coming from outside Iowa.

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.



Vacation a Good Time for Repairing Defects

Did you ever feel ashamed of the standing of your child in school as compared with that of the other children? There are not enough places at the top of the class so that all children can be there but parents like to have theirs within speaking distance of the head.

Poor marks often come as the result of a child's playfulness but more often they can be traced to a more tangible cause. If a child seems serious about his work but fails to get on, it may be that his eyes are the cause of the whole thing. Imagine how nerve-racking it must be to sit straining at the blackboard and being just able to get the problem deciphered by the time it is erased and a new one started. Such a child spends his whole energy simply seeing the problem; he has none left for understanding it.

A child has no past experience to go by. A little boy who sees poorly thinks that others see just as poorly but get along because they are smarter. In this way a sense of inferiority is added to his other worries.

The summer vacation gives a good time for investigating the physical equipment of children. Long days in the open air, sunlight, and fresh green foods are all available to help in any correction that may be needed. There is no doubt that we are becoming a race dependent upon glasses but I firmly believe that about half of this is unnecessary.

The eye is a very delicate thing but it has enormous powers, many of which can be developed with a little care. Headaches, backwardness in school, and peculiar attitudes in reading may all point to eye trouble. They deserve an examination, at least. Children who are properly fitted at the right time more often than not outgrow their eye troubles and are able to discard their glasses.

Proper care of the eyes and prevention of trouble should include:

1. Good light. This should be steady and should come from the left and a little above for right-handed persons. Avoid a glare and do not read while in motion.

2. Eye examination by a good oculist (not an optician) if there is any indication of trouble.

3. Avoidance of fine, close work.

4. Frequent rest for the eyes. Looking off into the distance is a good rest. Do this at intervals when engaged with something very near.

A practice recommended by one competent eye surgeon consists of a couple of exercises to be done the first thing on waking. One of these is to wink the lids as rapidly as possible 30 times, rest, and repeat. The other is to revolve the eyeball as far in every direction as is possible without strain, first to one side and then to the other, keeping the eyes closed.

Sty is one of the common eye complaints and while not dangerous is often very painful. It is an infection of one of the glands along the lids and while its cause is not definitely known, it is thought to come either from eye strain or from rubbing with dirty hands.

Most stys do not come to a head but when they do they should be opened with a sterilized needle and the pus squeezed out. Cotton on a toothpick is good for this. The open spot should then be painted with a five per cent solution of argyrole. This is entirely harmless to the eyeball so you need have no fear if some gets in the eye. We used this under a doctor's direction a year or two ago and discovered then its general value.

A case of eye trouble in our family last year was diagnosed as pink eye and treated as that for a week. As it did not improve, a more complete examination was made and the cause was found in infected tonsils. When these were taken out the eye trouble disappeared completely as it was a case of poison being discharged from the tonsils, taken up by the blood and carried to the eyes.

A good thing to have ready is a saturated solution of boric acid. The water for this should be boiled, cooled, and put into a sterilized bottle. Then enough boric acid powder is added so that when all has dissolved that will there is a precipitate of it in the bottom. A person who habitually has tired or weak eyes will do well to get an aluminum eye cup and wash his eyes with this night and morning. Men working all day in dust or glare will find this restful. Mild salt water is good, too.

The eye is very much affected by the general tone of the body and before becoming discouraged about the condition of your sight it would be well to look to the general building up of the rest of you. Summer is the time to do it, particularly in the rigorous northern climates.—LUCY THOMPSON.

Turnip Tops

Someone writes in, "What does Lucy Thompson mean when she says that turnip tops should have something cooked with them?"

The inquiry came as the result of a few remarks on the subject of greens. I have known people who recommended the use of pretty near every leafy crop for greens, even alfalfa. Of course, we all use spinach, beet tops, and other things of the sort and I once tried using turnip leaves, pure and unadulterated, but the result was awful. You know how rough a turnip leaf is. Well, cooking doesn't seem to take away that roughness and we felt as if we had swallowed a bristle brush the day we ate the turnip greens.

That is why they should have something cooked with them. If you have plenty of the something else, don't use the turnip leaves at all; they only act as a filler and have no more vitamin value than anything else.—LUCY THOMPSON.

Shorts

The very best sink strainer that I have ever seen was made by punching holes in the bottom of an ordinary lard pail, using a stout nail and hammer to make the holes with. About two dozen holes were made. This utensil takes little room, keeps the meal-to-meal garbage out of the way, has no paint to wear off or enamel to chip. It can easily be kept bright and clean.

Keep coffee in an air tight can. It loses its strength and aroma when it is exposed to the air.

Castors under the legs make it possible to move the work table to the most convenient spot for each job. If you are preparing a meal you can shove the table close to the stove so that you can work from one to the other without unnecessary steps. You may push it close to the dining room door and receive the dishes on it and carry them to the sink. You can put the dried dishes onto this table and take them to the cupboard. Such tables with and without porcelain tops are on the market, but castors put into your old work table will serve the same purpose.

Some chopped mushrooms and a half-cup of grated cheese added to the cream sauce for fish is a great improvement.

Iron pots rust easily, especially when they are new. The seasoning of an iron pot cannot be done in a hurry. The rust must be rubbed off again and again, each time greasing the pot with lard or some other fat that is free from salt or water. Even then it will take a long time to get the pot to the place where the little patches of rust will no longer appear.

The best way to keep cider sweet is to boil it for about twenty minutes in order to sterilize it, then bottle in sterile bottles and cork with sterile corks. When the bottles have been corked it is best to seal them by dipping the heads in melted canning wax. They should be stored in a cool cellar and the bottles should be protected from the light. Fruit jars can be used for canning but the same care must be taken so that the jars and covers are thoroughly sterile. Canned in this way cider will keep sweet for a long time.

The beauty of fine linens depends chiefly on the care with which they are washed and ironed. The small pieces of linen that are embroidered heavily will not look their best unless they are ironed on a thick pad with a moderately hot iron. If they are ironed on the wrong side, pressing from the center outward, always in the direction of the threads, the result will be most satisfactory.

Drawnwork is sometimes very difficult to manage. The open work shrinks more than the plain linen around it. To get good results lay the edge straight along the edge of the board, and stretch the drawn work in both directions. It should be ironed on the wrong side and stretched carefully all the while it is being ironed. When the article is completely dry it will be in perfect shape.

If linen has lace edges or lace corners, iron the linen first, then iron the lace on the wrong side, without stretching the edge of the linen. All pieces of linen should be rolled and not folded.—SOPHIA K. ORMOND.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Miscellaneous Fashions



No. 2070—Becoming Dress for the Plu Woman. Cut in sizes 36, 38, 40, 42, 44, and 48 inches bust measure. Size 36 requi 3⅞ yards 40-inch material with 1⅛ ya 36-inch contrasting.

No. 1639—Neat Porch or Morning Dr Cut in sizes 34, 36, 38, 40, 42, and 44 inc bust measure. Size 36 requires 4⅜ ya 36-inch material.

No. 2097—Youthful Style. Cut in sizes years, 36, 38, 40, and 42 inches bust meas Size 36 requires 2⅞ yards 40-inch mate

No. 2077—One-Piece Dress for Girls. in sizes 6, 8, 10, 12, and 14 years. Siz requires 1⅞ yards 36-inch material.

No. 2137—Slenderizing Summer Des Cut in sizes 36, 38, 40, 42, 44, and 46 inc bust measure. Size 36 requires 3⅛ yards inch material.

No. 2142—Attractive One-Piece Des Cut in sizes 16 years, 36, 38, 40, and 42 in bust measure. Size 36 requires 3 yards inch material with ⅜ yard 36-inch contr ing.

Fashion Magazine

From the front cover of our Spring Summer Fashion Magazine right on thro the book, you will see all of the styles w will be popular during the coming sea Styles for morning and afternoon wear well as those needed for the more formal casions. And cute styles for the kid There are dressmaking lessons for the ginner, and charming styles which can made in a couple of hours even by one wh a novice with the needle. Also photos the most popular Broadway, New York, tresses. So settle your dress problems sending 10c today for our new Fas Magazine. You'll save dollars by doing Address Fashion Department, Hoard's D man, Fort Atkinson.

"A meal well chatted is half gested."

Brief History of the New Salem Circuit

In 1883 a Northern Pacific land commissioner unloaded a colony of German-Americans at a railway siding, which was later named New Salem.

The new settlers failed in grain growing and in the later 80's they commenced to milk the native cows and to make butter. W. H. Mann, a storekeeper, bought their butter but color and flavor of the butter varied so that Mr. Mann deemed it advisable to purchase whole cream which he churned in the basement of his house. In 1896 the New Salem creamery was built jointly by people of New Salem and the farmers of the community. In 1898 a second creamery was built at Youngtown, 10 mlies inland to the north. In 1909 the U. S. Department of Agriculture, through W. M. Hayes, Assistant Secretary of Agriculture, offered jointly with any experiment station in any state to start a community breeding experiment. Professor J. H. Shepperd, believing that New Salem would co-operate and learning that they had purchased a carload of pure-bred dairy cattle jointly in 1906, proposed that a breeding circuit be established there. On January 1, 1910, the circuit was instituted and record keeping and co-operative breeding began. Twelve members signed up, 10 of these original 12 herds are still in the circuit; 10 of the original owners have passed but their herds are still in the circuit in the hands of some members of their respective families and on the original farms. All circuit cattle are tested for tuberculosis annually and are all on the accredited list.

Average gross income per farm from butter in 1921, $1,107.91.

Average gross income per farm from butter in 1922, $1,181.88.

Average gross income per farm from butter in 1923 was $1,621.95.

Five per cent of the sales from pure-breds goes into the circuit treasury for an advertising fund.

The high producing herds for 1921, 1922, and 1923 are as follows:

	Cows	Ave. lbs. fat	Ave. value	Ave. feed cost	Income above cost of feed	Year
Henry Kroeger.....	5	364.5	$127.09	$43.43	$83.66	1921
Dick Wilkins.....	9	327.5	113.40	41.20	72.12	1922
Charles Holle.....	11	410.5	131.34	45.52	85.82	1923

A grade cow in the Wilkins herd produced 419.3 pounds fat during the calendar year 1922. During six months of that time she grazed in the co-operative pasture and received no grain feed.

Charles Holle's cow, Dakota Marie Pearl 347179, raised the circuit calendar record with 609.3 pounds fat from 11,195 pounds milk in 1923.

The state average production of butterfat for cows of North Dakota is 126 pounds per year, according to the United States census report.

Condition of a Typical Circuit Herd

Year	No. cows	Fat Lbs.	Income above feed per cow from fat sold
1910	17	131.9	$16.90
1911	12	140.7	13.20
1912	17	189.5	35 45
1913	16	211.4	33.09
1914	10	282.4	50.98
1915	13	291.8	54.50
1916	14	427.6	90.24
1917	14	340.5	92.00
1918	11	262.9	96.65
1919	16	277.6	94.20
1920	18	272.9	93.58
1921	17	286.2	50.32
1922	18	298.1	58.00
1923	12	303.4	82.74

An average increase per cow for last four years over first four years of 172 per cent.

During the first 4 years 62 total cows were milked and during the last four years 65 head.

Sixty-nine per cent increase in yearly butterfat per cow.

One hundred seventy-two per cent increase in yearly income above feed cost in ten years.

Other Features of Cooperation

The New Salem creamery was built in 1896 and has never closed its doors for a single week since the opening date. The farmers hauled the boulders and sand and performed such of the work as a layman could do. The townspeople furnished the money necessary for erecting the building.

Eight milking machines were bought on a wholesale contract by circuit members.

Eight silos were bought co-operatively and the foundations built as one contract.

Nine-man threshing rings are quite standard organizations in this region.

Five-men silage rings put up the silage in this neigborhood.

Four circuit members use a section of land for pasture without cross fences, each turning his herd in through a gate on his side of the pasture.

There is a mutual fire insurance company here now more than 20 years old and operating extensively in three counties.

A picnic meeting in midsummer and an annual business meeting are the outstanding circuit sessions of the year.—J. H. SHEPPERD, North Dakota Agricultural College.

"KNOWING my tires will never give me trouble—that I can drive over any kind of road without fearing for them—means much to me. For that reason we always buy Fisk Red-Tops."

The Fisk Red-Top Tire with its extra ply and extra heavy tread is built for use on country roads. Once used it is always specified when a new tire is needed.



the farmer's wife



Time to Re-tire
Get a Fisk
Trade Mark Reg. U. S. Pat. Off.

FISK
RED-TOP
TIRES

Grindin' Feed

Some days upon the farm are blessed
With brimming happiness,
While others dawn and slip away
In seeming emptiness;
Some days cling deep in memory,
Some days are sad indeed,
But just about the grandest days
Are those of grindin' feed.

It's always on the windy days
You turn the old mill loose,
Then shut the door on zephyrs wild
And sing to beat the deuce.
The wind howls through the shingles old,
As if an ancient reed
Had been attuned to faulty notes—
The notes of grindin' feed.

Or else it's on a rainy day,
When all outdoors is drab
And raindrops rattle off the roof
Or 'gainst the window stab.
The grinder fills the room with dust,
With gnashings, in its greed,
But still it's sort of peaceful there
When just a-grindin' feed.

The grinder keeps you shoveling,
You hustle at the task;
There's not much time for "mooning" or
In idleness to bask.
So long as eery howls come from
The unseen, passing steed,
You feel content to be shut in,
Engrossed in grindin' feed.

For true it is, that most of us,
At times, crave solitude—
To be alone, shut off by rain
In mental lassitude.
We like to play there's only "me"
From worldly worry freed,
And that's just why I look ahead
To days of grindin' feed.

—R. D. GALT.

Aunt Ada's Axioms: Those who spend little effort in making other persons happy will soon have little to spend.

Throw Away the Dish Pan

New invention makes possible the washing and wiping of dishes and cream separator parts in a minute.

Heat the water in the machine, put in the dishes and in a minute's time they can be taken out thoroughly clean and dry.

Send Ten Dollars today, without delay and a dishwasher will be sent to your door prepaid. Perfect delivery guaranteed.



The Eureka

THE EUREKA COMPANY
HAWARDEN IOWA



Pat. 7-2-07 & 9-10-18
ANTI-COW KICKER

Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H. Topeka, Kansas

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You can get quick delivery on a Blizzard Ensilage Cutter



Save your ensilage -- for sure with the best ensilage cutter made

With your own Blizzard, you know you can get your ensilage into the silo as fast as you can haul the corn. It's the old reliable, with the finest time-saving, safety, and capacity-giving features.

Easy Running -- Use Light Tractor Power

Blizzards are lightest running. Do most work per H. P. Three models for use with Fordsons or other light tractor give 6 to 13 tons per hour capacity. Other models give high as 35 tons capacity and operate on power as low as 3½ horse.

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If you don't know him, telegraph us, collect, for his name. He has a real proposition for you on a Blizzard.

Latest Catalog on Request

The Jos. Dick Mfg. Co., Box 500, Canton, Ohio

WANTED —100,000 TONS of late unmatured, frosted CORN

to be put into the SILO to be used for feed this winter, instead of being wasted. To store this amount of ENSILAGE will require 1,000 ONE HUNDRED-TON METAL SILOS.

We have the METAL SILOS if you have the CORN. Don't convert into manure what can be made into ***Palatable, Milk Producing Feed.***

You have plenty time to order a METAL SILO and erect it. ***We guarantee prompt shipment,*** as well as the ***price.***

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Throws And Blows — Saves One Man

To get the most profit out of your silo, fill it with the simplest, strongest and most economical Cutter made.

The Papec's few parts and correct design reduce draft and lengthen life. Equipped with positive self-feed that is saving a man for hundreds of farmers. The Papec never clogs on any silo! Its performance is continuous. That one fact has made thousands of Papec sales and Papec boosters. The Papec is built by people who have long specialized in ensilage cutter construction. And the output is increasing every year.

Write today for our new Catalog and U. S. Gov't Bulletin "Making and Feeding of Silage." Both free to silo owners.



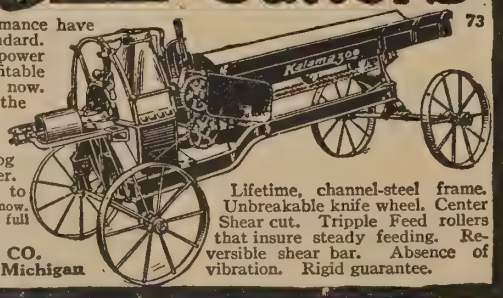
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Nearly thirty years superior performance have made this cutter The World's Standard. It will cut more silage with less power and less trouble. It will be a profitable investment and you need it right now. It pays to get your silage in at the right time.

Clean, Fast Cutting

This smooth, easy-running, non-clog cutter stops or starts with one lever. It is safe and reliable. Three sizes to meet every farmer's needs. Special terms now. Write today for Ensilage Cutter Book and full particulars.



Lifetime, channel-steel frame. Unbreakable knife wheel. Center Shear cut. Tripple Feed rollers that insure steady feeding. Reversible shear bar. Absence of vibration. Rigid guarantee.

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Dept. 133 Kalamazoo, Michigan

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

DAIRY MARKET NEWS

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on August 1, figures being given in thousands of pounds (000 omitted):

	Aug. 1 5-yr. ave.	Aug. 1 1923	Aug. 1 1924
Butter, creamery	102,553	101,774	133,402
Cheese, American	51,572	55,839	65,716
Cheese, Swiss	2,730	3,132	6,353
Cheese, Brick	1,799	2,916	2,034
Cheese, Limburger	1,006	1,261	1,140
Cheese, all other	9,567	7,712	8,913

These holdings include stocks in both cold storage warehouses and packing house plants.

August Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 109 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributor's plant.

Table I—August Producers' Prices by Geographic Sections

Sections	Range of prices per cwt.	Comparison of average prices 1924 Aug.	1924 July	1923 Aug.
New England	$2.59—3.40	$2.98	$2.83	$3.31
Middle Atlantic	2.00—3.21	2.38	2.30	2.68
E. North Central	1.23—3.00	2.48	2.41	2.57
W. North Central	1.40—2.82	2.07	2.01	2.35
South Atlantic	2.38—4.94	3.46	3.45	3.26
E. South Central	1.46—3.37	2.55	2.57	2.29
W. South Central	1.58—3.04	2.25	2.27	2.64
Mountain	1.40—3.20	2.36	2.36	2.20
Pacific	1.50—3.59	2.62	2.59	2.79
United States	1.23—4.94	2.52	2.47	2.68

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers.

Table II—August Producers' Prices F. O. B. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.	$3.25—$4.07	16—17
Phoenix, Ariz.		10—12
Little Rock, Ark.		16
San Diego, Calif.	3.89*	15
San Francisco, Calif.	3.11	14
Denver, Colo.	1.92	12
New Haven, Conn.	3.51—3.57*	15
Washington, D. C.	3.20*	14
Jacksonville, Fla.	3.37*	16—18
Chicago, Illinois		14
Indianapolis, Ind.	1.58—1.75	12
Des Moines, Iowa	2.45*	12
Topeka, Kansas	1.90—2.00	
Louisville, Ky.	1.63—2.04	12
New Orleans, La.	3.04	14
Baltimore, Md.	3.13*	14—15
Boston, Mass.	3.44*	13½
Detroit, Mich.	3.00*	13—14
St. Paul, Minn.	2.50	11
St. Louis, Mo.	2.40	13
Butte, Mont.	2.56	13—14
Lincoln, Nebr.	1.75	10
Trenton, New Jer.	3.17*	12
New York, N. Y.		13
Fargo, No. Dak.	2.10	10
Cleveland, Ohio	3.30*	14
Tulsa, Okla.	1.75	15—18
Portland, Ore.	1.85	11—12½
Philadelphia, Pa.	3.17*	12
Pittsburgh, Penn.	3.50*	14
Providence, R. Is.	3.22*	13½
Sioux Falls, So. Dak.	2.00—2.25*	12
Memphis, Tenn.	2.80*	15
Dallas, Tex.	2.60*	15
Salt Lake City, Utah	2.10	
Richmond, Va.	3.81*—4.05*	14
Seattle, Wash.	2.45*	11
Spokane, Wash.	2.50—2.61	12
Milwaukee, Wis.	2.85*	11

*Basic prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at producers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III—August Prices at Country Stations

	At Country Stations	Freight zone to which prices apply
New Haven, Conn.	$3.05*—3.23*	28c rate
Washington, D. C.	2.38*	35c rate
Chicago, Ill.	2.40—2.60	All
Indianapolis, Ind.	1.23	24c rate
Baltimore, Md.	2.67*—2.73*	35c rate
Boston, Mass.	2.59*—2.67*	181-200 mile zone†
St. Louis, Mo.	1.80	34c rate
Trenton, N. J.	2.51*	28-33c rate
Buffalo, N. Y.	2.15*	28c rate
New York, N. Y.	2.20*—2.26*	201-210 mile zone‖
Cleveland, Ohio	2.90*	All
Pittsburgh, Pa.	2.65*	All
Philadelphia, Pa.	2.57*—2.60*	51-60 mile zone
Scranton, Pa.	2.00	30c rate

*Basic prices for fluid milk. †46.5 rate. ‖53c rate.

Table IV gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat.

Table IV—August Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Butter milk per qt.	Cottage cheese per lb.	Cream 18 to 25% per ½pt.
Albany	16	26	10	10	20
Asheville	18	25	10		15
Boston	17	25	10		
Baltimore	18	30	13	15	
Buffalo	13	26	10	15	22
Chicago	23	25	10—24	15*	16
Cleveland	12	30	12		20
Columbus	17	25	12		12—13
Denver	14		8	15*	13
Des Moines	13—25		5—10	14	14
Detroit	22—25	25	10		16
Hartford		25—35			18
Indianapolis	16		10	20	13
Kansas City	15	25	10		15
Lincoln	13	20	10	15*	10
Louisville	16	24	9—12	20	16
Memphis					15
Miami	25—30	25—30	20	40	20—30
Milwaukee	14—18	25	6	9—10	13—14
Minneapolis		20	12	12*	15
Nashville	18		8	20	16
New Orleans	18	30	13	15*	17
New York	30	28	11		
Philadelphia	14—15	30	12		
Portland	21	20	11	15	12—15
Richmond	16—18		8	14	
Salt Lake City	15		7		15
San Francisco		25	14	20	18
Spokane	15—16	18½	10—12		13—15
St. Louis	18	25	10—18	15	17
Trenton	16	30	12		13—14
Washington		30	14—15		17

*12 oz. package. †18-25% fat.

League's Pool Price for July

The New York Dairymen's League July gross pool price for 3 per cent milk at the base zone is $1.50, which is 8 cents higher than the June price. Deductions for expenses amount to 8 cents and for certificates of indebtedness 10 cents. The July net pool price, therefore, is $1.42 and the cash distribution is $1.32.

Dairy farmers throughout League territory are rejoicing over the recent announcement by the Dairymen's League Co-operative Association, Inc., of an increase in the base price of 3 per cent, grade B milk to $2.60 per 100 pounds. At the same time the price of Class 2 milk, sold in the form of sweet cream, was advanced to $1.90. Since August 1 the total increase in the price of fluid milk has been 74 cents.

In making the announcement, officials of the League declared that a sudden unseasonal shortage of fluid milk in the primary markets was the immediate cause of the increase. Several factors seem to have entered

Carload Prices of Hay, Straw, and Feed, Aug. 16, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	30.50	30.50	.....	20.00	.....	25.00	.....	23.00	19.50	28.50	18.00	24.50	....	16.00	
No. 1 Clover, mixed	20.50	.....	.....	17.00	.....	.....	.....	.....	16.50	.....	16.50	.....	.....	14.50	.....
No. 1 Clover	.....	.....	.....	.....	.....	.....	.....	.....	19.00	15.00	.....	16.50	.....	15.00	.....
No. 1 Alfalfa	.....	29.50	.....	.....	.....	31.00	.....	26.00	....	22.00	20.00	....	15.50	20.00	26.00
Standard Alfalfa	.....	26.50	.....	.....	.....	.....	.....	24.50	.....	18.00	18.00	.....	13.00	18.25	25.00
No. 2 Alfalfa	.....	23.50	.....	.....	.....	30.00	.....	21.00	.....	16.00	14.00	17.00	11.00	15.00	24.00
Oat Straw	13.00	14.00	.....	.....	.....	.....	.....	.....	12.00	12.00	9.00	.....	8.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	31.50	.....	32.00	29.50	30.50	.....	.....	.....	28.00	26.50	24.00	.....			.....
Soft Winter	33.00	.....	33.00	30.50	32.00	.....	.....	26.50	28.50	.....	24.50	25.00		24.50	37.00
Hard Winter	32.00	.....	32.50	29.50	.....	.....	.....	26.00	28.00	.....		24.50	22.50	24.50	.....
Wheat Middlings	.....	.....							.....	.....	.....	.....	.....	.....	.....
Spring (Standard)	33.50	.....	33.00	31.50	32.50	.....	.....	.....	31.50	28.50	26.00	.....	.....	.....	.....
Soft Winter	33.50	.....	33.00	30.50	32.00	.....	.....	26.50	28.50	.....	24.50	25.00		24.50	37.00
Hard Winter	32.00	.....	32.50	.....	.....	.....	.....	26.00	28.00	.....	.....	24.50	22.50	24.50	.....
Wheat Millrun	34.25	.....	34.00	.....	.....	.....	.....	.....	.....	.....	27.00	.....	.....	.....	37.00
Rye Middlings	.....	.....	.....	31.00	.....	.....	.....	.....	.....	.....	24.00	.....	.....	.....	.....
High Protein Meals															
Linseed	50.00	.....	50.50	49.00	.....	.....			49.00	46.00	44.00	.....	48.50	47.50	46.00
Cottonseed (41%)	51.50	.....	51.00	49.00	.....	.....	.....	44.00	43.50	48.50	49.00	.....	.....	.....	.....
Cottonseed (36%)	48.25	.....	47.50	44.00	.....	.....	.....	40.50	.....	46.50	47.00	.....	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	60.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	30.00	.....	.....	27.50	28.00	27.00	.....	26.00	25.00	.....	33.00
Gluten feed	45.55	.....	44.50	42.30	44.30	.....	.....	.....	41.30	38.40	41.50	.....	.....	.....	.....
Hominy feed (white)	47.00	.....	46.00	.....	46.00	.....	.....	.....	42.50	42.00	.....	40.50	41.00	.....	.....
Hominy feed (y'llow)	46.25	.....	45.50	.....	45.50	.....	.....	.....	42.50	40.00	42.00	....	41.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	41.00	43.00	41.00	.....	.....	.....	47.00
Dried Beet pulp	.....	.....	.....	.....	39.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.00

into the situation—dry weather in parts of League territory, less outside milk coming in because of low prices, decrease in milk movement to the markets because of hot weather. All these suddenly brought about the condition where a substantial increase was justified and promptly put into effect by the pooling organization.—Dairymen's League.

Cheese Markets

(Report by U. S. Dept. of Agriculture)

Cheese markets were easier and trading lighter during week ending Aug. 16. Heavy storage surplus and continued heavy production are factors of importance. Price changes during the week were slight.

The average wholesale prices on American cheese, style Twins, for the week ending Aug. 16, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Aug. 16 1924	Aug. 9 1924	Aug. 16 1923
	Cts.	Cts.	Cts.
New York	21.1	21.1	25.0
Chicago	19.2	19.2	23.0
Boston	21.2	21.2	25.3
San Francisco	19.0	19.0	25.5
Wisconsin Boards	18.7	18.8	23.2

The receipts of cheese at these markets were 5,471,827 lbs. for the week as compared with 4,355,438 lbs. last week and 5,111,911 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agriculture)

Butter markets were firmer during the week ending August 16, although undertone of the market was more or less nervous. Reports indicate continued heavy production and storage holdings being added to despite the 31,000,000 lbs. surplus on August 1 as shown by the total U. S. report. Firm foreign markets have temporarily resulted in some butter being shipped to England.

The average wholesale prices on 92-score butter for the week ending Aug. 9, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Aug. 16 1924	Aug. 9 1924	Aug. 16 1923
	Cts.	Cts.	Cts.
New York	38.3	37.8	44.0
Chicago	36.7	35.9	42.7
Philadelphia	39.7	38.5	45.0
Boston	38.5	37.6	44.1
San Francisco	40.6	39.6	44.9

The receipts of butter at these markets were 15,489,036 lbs. for the week as compared with 16,690,574 lbs. for last week and 12,662,589 lbs. a year ago.

Twin City July Prices

The Twin City Milk Producers' Association paid its members $1.85 a hundred for 3.5% milk delivered Twin Cities during July. It paid 42c a pound for first grade butterfat in cream.

There was a decided dropping off in milk received during the last week in July, but the total for the month was 3½ million pounds more than for July last year. Of the 22 million pounds received, 55% was sold to distributors at $2.10 a hundred. It cost 25 cents a hundred to operate the plants and pay other expenses.

MILWAUKEE, Aug. 26—Butter—Creamery, fresh, extras, tubs, 36½c; standards, centralized, 35½c; extra firsts, 34@35c; firsts, 32@33c; seconds, 30@31c; ladles, 26@28c; packing stock, No. 1, 24@25c; off goods, 15@20c.

Cheese—American, full cream, Twins, 18½@19c; Daisies, single, 19@19½c; do, double, 19@19½c; Young Americas, 19@19½c; Longhorns, 19@19½c; squares, 19½@20c; 5-lb. loaves, American, 32c; do, pimento, 34c; Brick, fancy, 17½@18c; Limburger, 18@19c; Swiss, block, 25@30c; do, loaf, 32@33c; imported Swiss, loaf, 46@48c.

NEW YORK, Aug. 25—Butter—Easy; receipts, 7,674 tubs; creamery, higher than extras, 39@39½c; creamery extras, 92-score, 38½c; creamery firsts, 88 to 91-score, 36@38c; packing stock, current make, No. 2, 27@27½c.

Cheese—Unsettled; receipts, 35,941 lbs.; state whole milk, flats, fresh, fancy to fancy specials, 20@21c; do average run, 19c.

CHICAGO, Aug. 25—The butter market today traded very quiet and appeared easy with an unsettled undertone. Receipts were more liberal, but supplies available for trading on street were not burdensome. Receivers were free sellers at prices listed about, but buyers were indifferent and very critical as to quality. The centralized car market was easy with trading very quiet. Supplies of 88- to 89-score was liberal and freely offered.

Fresh butter—92-score, 36½c; 91-score, 36c; 90-score, 35½c; 89-score, 34½c; 88-score, 34c; 87-score, 33½c; 86-score, 32½c. Centralized carlots—90-score, 36¼c; 89-score, 35c; 88-score, 34c.

FOND DU LAC, Wis., Aug. 23—Average cheese prices (majority of sales) f. o. b. shipping point: Single Daisies, 19c; Young Americas, 19c; Longhorns, 19c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Aug. 23: Single Daisies, 18c. On Farmers' Call Board Aug. 21: Single Daisies, 18c; Young Americas, 18c; Longhorns, 18c; square prints, 19c.



More Milk *now*— more milk for years to come

Two things are necessary to make a dairy feed profitable—It must show you immediate results by making your cows give the most milk possible, and it must keep them in such condition that they will increase that production year after year.

Right from the start LARRO lays a sure foundation for consistent heavy milk production by first building up the health and condition of your cows. Continuous feeding of LARRO maintains health and condition, thus guaranteeing peak milk production, not only now, but month after month, year in and year out.

Actual figures prove this true in thousands of cases—among grade cows and thoroughbreds alike, regardless of breed, regardless of geography.

Cow No. 241 is an ordinary barn Holstein bought by the Larro Research Farm in 1922 for $125. She had been milking 150 days when she arrived at the farm. Her production during the first 30 days thereafter was 724.5 pounds of milk. In her next lactation, during the corresponding 30 day period, she produced 1,173.3 pounds of milk—more than 50% increase. Her total milk production in the first full lactation period at the Larro Research Farm was 13,646.4 pounds—more than three times the average for all cows in the United States. Larro—maintaining health and condition—plus proper care, did it.

Prince's Rose of Meadowbrook is a Jersey who broke the Pennsylvania state record for 2-year-olds in 1922 with 9,810 pounds of milk and 462.79 pounds fat. In 1923 she again became state champion with a record of 14,292 pounds and 639.05 pounds fat. As a calf she was started on a Larro grain ration and kept continuously on Larro throughout the milking periods mentioned.

Down in Florida, Ferndell, of the famous Lemon City White Belted Herd, produced 13,477.9 pounds of milk and 585.64 pounds of butter fat in her twelfth year—five or six years past the age of peak production for most cows. The herd she leads has been fed Larro for thirteen years and averages 9,998 pounds per year.

A feed that accomplishes such long distance results must be a feed that first builds health and condition—then positively maintains these two important requirements for profitable milk production.

Your cows should be on a grain ration now. There is no feed that will more surely guarantee future production and future profits than Larro.

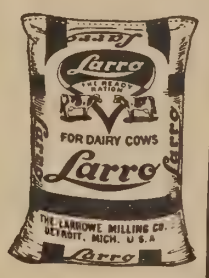
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Larro

The SAFE Ration for Dairy Cows



Holstein Special for Grades

The Holstein-Friesian Association of America has added $300 in special prizes for the grade cow classes at the National Dairy Show. It has taken this step to show its interest in the promotion of cow testing association work and to make possible a better exhibit. This prize money will be apportioned as follows:

For the cow testing association exhibiting the largest number of grade Holstein cows—$25 for first, $15 for second, and $10 for third.

Fifteen placings in addition to the regular prizes are provided for in the class for cows producing 350 lbs. of fat or over, and a like number for the 250-pound class. This will provide a total of 25 prizes in each of these two classes, ranging from $30 for first place to $5 for twenty-fifth place.

The WINDMILL with a RECORD



The Auto-oiled Aermotor has behind it 9 years of wonderful success. It is not an experiment.

The Auto-oiled Aermotor is the Genuine Self-Oiling Windmill, with every moving part fully and constantly oiled.

Oil an Aermotor once a year and it is always oiled. It never makes a squeak.

The double gears run in oil in a tightly enclosed gear case. They are always flooded with oil and are protected from dust and sleet.

The Auto-oiled Aermotor is so thoroughly oiled that it runs in the slightest breeze. It gives more service for the money invested than any other piece of machinery on the farm.

You do not have to experiment to get a windmill that will run a year with one oiling. The Auto-oiled Aermotor is a tried and perfected machine.

Our large factory and our superior equipment enable us to produce economically and accurately. Every purchaser of an Aermotor gets the benefit from quantity production.

The Aermotor is made by a responsible company which has specialized in steel windmills for 36 years.

AERMOTOR CO. Chicago Kansas City Dallas Minneapolis Des Moines Oakland



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

A Wonder Boy Dairyman

They say he is the boy champion dairyman of the United States. Whether or not this is true, he has had remarkable success feeding and milking cows in the home herd as shown by the cow testing association records.

Thomas Harvey, Wisconsin, is 13 years old, and among other accomplishments last year, he owned, fed and took care of Star, a grade Holstein cow that stood next to the top in the Hazel Green Cow Testing Association, which organization had the second highest herd average among the 165 such associations in Wisconsin in 1923.

Harvey is a very faithful reader of the Junior Page of Hoard's Dairyman, and this spring, while recovering in the hospital from an accident which cost him the sight of one eye, he had his mother read the Junior Page to him. Harvey has been a good school boy and his marks seldom fall below ninety. Although he has been unable to attend school since his accident, we hope that next fall will find him back with his schoolmates. In the meantime, he is caring for the cows and continues to be the dairy boy wonder.

Star freshened again this spring, but udder trouble kept her milk flow down. Harvey is considered a good feeder, and here is his account, written especially for you Hoard's Dairyman Juniors, of the way in which he fed and cared for Star, also a little something about some other cows in the home herd:

I fed my cow, Star, equal parts of bran, ground corn, cob meal, and ground oats. The reason I did not feed oil meal was because she would not eat it. I also fed ¼ pound molasses feed three times a day. I have not told you how much ration I fed her at a time. She received four pounds morning and night, and about five pounds of whole oats at noon and all the second cutting clover she would eat. I clean her once a day, and real good on Saturday. The most milk she produced any one day was 72 pounds. The most butterfat she made was 89.9 pounds a month. She milked continuously for 16 months. She produced, during the association year on which she was milking nine months, 12,975 pounds of milk and 566 pounds of butterfat. She was milked three times a day for three months. When I was at school papa milked her for me. I recently sold Star to papa. I am now starting in with a pure-bred calf. But I am going to milk and care for Star just the same.

We milked four cows three times a day last month (June)—Star, who made a record of 69.4 pounds of butterfat with a 4 per cent test, Daisy, Rosetta, and Cosetta. The last two are four-year-old twins. Cosetta gave 2,079 pounds of milk with a test of 4 per cent, making 83.2 pounds of butterfat. Rosetta gave 2,049 pounds of milk with a test of 3.3 per cent, making 67.6 pounds of butterfat. I fed and took care of these cows most of the time, feeding equal parts of ground oats, bran, and sucrene, three pounds per cow three times a day. We had high cow and high herd in the association which pleased me very much. Twinkle is a very fine individual. I believe I told you I had gone into pure-breds. I bought a pure-bred Holstein heifer calf from Leo Kuhl & Son. Her name is Korndyke Pabst Abigail De Kol. She is now nine months old and weighs about 624 pounds. I bought her for our calf club work, paying $60 for her when she was 6 days old.



THOMAS HARVEY, A HOARD'S DAIRYMAN JUNIOR, IS A GOOD COW FEEDER. HERE HE IS WITH STAR, WHOSE CALF'S NAME IS TWINKLE

About Two Junior Showmen

J. Harold Fogg and Robert Krog are two New Jersey club boys who say they have fully decided to be good dairymen and breeders of Holsteins. They have made a great beginning.

Harold, who is 12 years old, paid $150 for his heifer, Princess Abbekerk Prilly Segis, when she was six months of age. She has already won $182 in prize money for him and he expects to continue winning with her and her offspring in the years to come. At the Trenton Interstate Fair, Judge Moscrip awarded "Princess" first in a class of twenty senior yearlings, which included some of the best in the country. She was also Champion Club Holstein at that fair. She later won prizes at the National Dairy Show.

It is of interest to know that "Princess" is a daughter of Winterthur Prilly Segis Marmagel, who was grand champion Holstein bull at the Trenton Inter-State Fair for two years prior to 1923. Harold expects to put an Advanced Registry record on her after she freshens in March.

Robert Krog of Plainfield, New Jersey, won honors in the club classes at the National with his yearling, Colantha Aaggie Carlotta, when he



J. HAROLD FOGG AND "PRINCESS"

was awarded the Showmen's Cup donated by the Junior Extension Department of the Holstein-Friesian Association of America

At the present time calf club work is one of the leading dairy projects in New Jersey. There are many cases on record where high class club animals, introduced in backward dairy communities, have been the means of inaugurating tuberculin testing, the use of well bred bulls, and better feeding methods because the county club agents give close supervision to the proper raising and management of the 400 or more dairy heifers, along with the poultry and pig clubs. Every state club leader recognizes the necessity of close supervision in dairy calf project work which extends over a period of three years, and where the investment is comparatively high.

New Jersey. E. J. PERRY.

Robert Krog is quite a fellow. Club work has meant a great deal to him. In fact it has changed his choice for



ROBERT KROG WINS SHOWMAN'S CUP

a life profession. He has written you Hoard's Dairyman Juniors a letter and here it is:

I was born and raised on a dairy farm but like a lot of other boys, I thought dairy work was tedious and a poor business for anyone who wanted to make a name for himself in this world. I made up my mind that I would go to the city and get a job as soon as I was able to do so, there the working hours wouldn't be daylight or earlier until dark or later.

My dad had a herd of 20 grade cows representing all of the known breeds. He retailed his milk in Plainfield, New Jersey, and had built up a reputation for clean milk from tuberculin tested cows. The bacteria count of this milk seldom ran over 6,000 and frequently was as low as 600. Even at that, the reputation my dad made didn't knock the city idea out of my head.

One day in October the county club agent, Carl B. Bender, came out to our place and talked up the calf club idea to dad and myself. He said there were good pure-bred heifers of excellent breeding to be gotten in various parts of the state at a reasonable price. Dad thought it would be a good idea to get one for me and see what she would do.

We attended a community meeting about a week later when the idea was sold to fifteen boys and girls and the club was organized with Robert Williams as president.

In due time the calves were purchased by a committee.

The calves arrived and lots were drawn and Colantha Aaggie Carlotta, 720885, was given a ride to her new home in our milk truck. She took to her new quarters as a duck to water and immediately began to take care of the little surplus milk we had and even cheated some of our customers out of theirs.

She always received all the feed she would clean up and began to grow at once. Her disposition seemed to improve at once and she soon became the family pet and certainly responded to all of our advances.

As a senior calf she went to the Eastern States Exposition and took first prize in pretty fast company. She was shipped from there to Trenton; the trip caused her to lose a lot of weight but at that she took third in the calf club class and sixth in the open. She also received a cup for being the best animal over all breeds in the county. She then went home and took first prize at the Community Calf Club Show.

The following year she again took first at the local show, showed a clean pair of heels to her class in Far Hills and took first in the open, took third in the calf club class at Trenton and in the open class of 25 animals which included the Carnation and Knowles Farm entries she took fifth, displacing one of the animals which had previously beaten her.

After the Trenton Fair, "Toots" and I went into a box car with two other boys and the rest of the New Jersey Calf Club calves and shipped for Syracuse. There we were to meet calf club entries from all over the country. She took third in her class.

An announcement was then made that a cup would be awarded to the best fitted and best shown calf club animal. "Toots" had been well trained and fitted but I again went to work on her using a sweet oil rag, pomace, and plenty of elbow grease. Again she justified my faith in her and won the cup.

Dad has been so pleased with the showing "Toots" made during the period of my ownership that he bought several well bred heifers from South Jersey as well as the top price cow at one of the state sales and a pure-bred bull of blue blood.

As "Toots" was due to freshen in January, we at once began to get her in condition for test. As this was our first experience at A. R. O. testing, we were very green. She fleshed up well and dropped a bull calf on January 8, 1924, which I sold for $50 ten days later. This was a fine coupon to cut from a $75 investment. Her bag was caked but perfect in shape with the teat well placed.

Due to our inexperience, we got her off her feed during test but even at that she made 363.2 lbs. milk and 13.61 lbs. butter as a junior two-year-old. I learned a lot from the test and also something about feeding. She is now milking 45 lbs. a day on two times a day milking and to top it off, she is looking better in milk than she ever looked as a calf or yearling.

I have come to the conclusion that a reputation can be made in the live stock and milk business and there is plenty of satisfaction in knowing that we can assure the people of Plainfield the best grade product which can be produced.

Yours for calf club work and farming,
Robert Krog.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

There is a good geography lesson in the August 22nd issue of Hoard's Dairyman. How many of you juniors know where Hongkong is? Get out your map of the world and find China. Right opposite the province of Kwang Tung, in the China Sea, is the island of Hongkong. No, it does not belong to China, as you perhaps may think. Although largely inhabited by yellow skinned, slant eyed people, it is a British possession.

The land is very rocky so there is little fertile ground upon which to grow crops, but with a population of a million or more, milk and other dairy products become essential. Thirty-eight years ago Sir Patrick Manson, who discovered the mosquito to be a carrier of malaria, founded the Dairy Farm Ice and Cold Storage Company, Ltd. of Hongkong.

How large is this institution? The company owns 1,000 cows, over 300 acres of land, and more than 100 up-to-date buildings for offices, dairies, and piggeries, all of which are modernly equipped.

How is milk produced? The central farm is some 500 feet above sea level and receives the full benefit of breezes every day in summer time. An overhead electric ropeway furnishes transportation to and from the farm and wharf. Cleanliness is emphasized above everything else. A rigid set of dairy regulations is posted for every employee of the company to follow. The milk is distributed by coolies in the hillier portions of the country, and on the lower parts of the city carrier tricycles and motor vans are used.

Discuss some of the sources of loss to the company. In one of the first importations of cattle, the ship encountered a typhoon and most of the cattle were lost. Serious diseases and epidemics in the company's herd have, on several occasions, caused great loss. Rinderpest, foot and mouth disease, and ticks have taken their regular toll.

Tell about the forage crops grown and their use. It has long been a problem to produce sufficient green fodder for the cattle. It has been found that guinea grass is the most suitable plant for local conditions.

When cut young this is a very succulent feed. It requires much land, being planted from fresh slips taken from old roots and being inserted at regular intervals about 30 inches apart. The surplus green fodder is converted into silage. Eight silos are scattered over the farm. These are built with stone against the hillsides. The silos are filled from a filling platform on the hillside.

What is the three-fold saving on sweet clover? Land, labor, and the cow's energy in the manufacture of milk. (See W. J. Fraser's article.)

How has the New York Experiment Station's Jersey herd been fed? Mature cows receive 1 lb. of the grain mixture for each 2½ lbs. milk testing 5½ to 6 per cent butterfat, calculated on the yearly basis. The grain mixture, with slight variations, contains about 18 per cent of the total crude proteins and consists of bran, oats, corn, and linseed oil meal in approximately equal parts by weight. Alfalfa or clover hay and corn silage are fed in addition to this grain mixture.

Junior Letters

Norman County Calf Club

Hoard's Dairyman Juniors:—I am thanking you for the fob and creed. I am going to memorize it, because I think it is a good one.

I am in a Calf Club. I joined it last year in April. I have a Holstein calf. I like the Holsteins the best of all breeds. We received our calves the 21st of April, 1923. There are 33 members in our club. This year some more joined. Now there are 65 members in our club. The name of our club is Norman County Dairy Calf Club.



WILFRED BAKKEN

The fair was the last day in June last year. All the calves were looking fine. We all were waiting for our calves to be judged, because we all wanted first place, but we all could not have it, and neither did I get it. Charles Teters was the lucky guy.

This winter 12 of the Norman County Club boys and girls went to Crookston, Minn., to the winter show. At Crookston I got 7th prize on my calf. Charles Teters got first again. Then the winners from each county had to go against each other. The girl that won the silver cup was Myrtle Himrum of Lake Park, Minn. Charles Teters got second. We were at Crookston all week.

Last year we had quite a few club picnics where we had good times. We would have different kinds of races and prizes were awarded the winners.

The president of our club is Alice Landro. She sure is a dandy president. She has been in club work many years so she knows something about it.

I am fifteen years old. Also find a picture of me and my calf, Peggy.

Minnesota. WILFRED BAKKEN.

The juniors mentioned in this letter are all members of Hoard's Dairyman Juniors Club. They have made great records. We are proud of them. Keep up the good work, Wilfred.

Keeping Records on Calf

Hoard's Dairyman Juniors:—My calf was five months old the 11th of July. I weigh her every month. When I entered her she weighed 282 lbs. and was 4½ months old. It weighs 343 lbs. now, being 5½ months old. It gained 61 lbs. last month. I feed her five and a half pounds of mixture feed; that is, barley, bran, oats, and oil meal, and I give her 18 pounds of milk a day. I keep her in a pen all by herself. I give her exercise every day, morning and evening. I did keep her blanketed but she won't keep it on any more, so I have to brush her so much more. I had her down to York Corner to our round-up. I took two prizes there. It is a nice thing for the boys and girls to be in a club of some kind. I am in three clubs: calf club, canning club, and sewing club.

My address is Northfield, Wis. I will answer all letters I receive. Agnes Hulett.

Makes a Rope Halter Successfully

Hoard's Dairyman Juniors:—I like to read the Hoard's Dairyman Juniors' page because it is always interesting and in each paper I find something of value about caring for dairy cattle.

Just lately I read the page where the Hoard's Dairyman shows how to make a rope halter for a calf. Then I tried it. It took me about three hours to make it because I would always get mixed up when I would be about half through. But now I'm glad I made it anyhow, because I know how to make one now and the next one would not take over half an hour for me to make. I have found out that ropes make good halters, too. Mine just fits my calf and I'm teaching her to lead, every day, with it. I did have some good experiences with my dairy calf last year.

Minnesota. Ruby Danck.

Potato Club Experiences

Hoard's Dairyman Juniors:—Received your letter and am sending you a picture of myself that was taken last year at fifteen years of age.

Last spring I received 2½ bushels of russet seed potatoes from County Agent Winslow. My sponsor was Abel O. Sterk. In the fall I had to give him back four bushels for pay. The rest I sold. I took good care of my potatoes and my father's also. They were both in the same field. In the fall we all took a peck of our best ones to the fair. Out of 248 pecks I won first which was $5 in gold. I did not take my potatoes to the state fair as I was too busy at home. Then a little later in the fall we all went to the potato banquet which we all enjoyed very much.



HAROLD L. HAUGH

In June we went camping for four days; everyone enjoyed that more than any other part of the club. I am a member of the potato club this year. We are going camping for seven days this year.

I am a Sophomore in high school and am taking up an agricultural course. Our farm contains 71 acres. We raise pure-bred Guernsey cattle.

Pennsylvania. HAROLD L. HAUGH.

Do You Agree With Ethel?

Hoard's Dairyman Juniors:—The Hoard's Dairyman for July 4, 1924, in the Junior Department, contained a *very* good article, "An All Around Farm Girl". It should help each and every junior to make the most of every opportunity and to look up at their clouds, rather than down, for the sun is sure to break through some time.

The pictures about how to get your calf ready for the fair are very helpful to the boys and girls, and I think they should tear out that page and keep it. "On Lake Mendota's Shores" is very interesting, and "Philosopher Phil Says" is really a good little thing to set us juniors to thinking what we say before we say it! "How I Won a Showman's Cup" teaches the young showman a few valuable lessons. The letters are extra good this month.

Kansas. Ethel Gordon.

Milking Makes Muscle

Hoard's Dairyman Juniors:—I live on an 85-acre farm 7 miles from the city of Loveland, Colo., a city of 6,000 people. I live near a large school house known by the name of "The Big Thompson" school. It got this name for the reason that it is near the Big Thompson river.

I will now tell you something about myself. I am 14 years old in April, extra large for my age.

I am a star athlete out of 100 pupils, holding first place in most all of the athletic sports in our school and Sunday School. Believe me, juniors, if anything will develop the muscles of a boy it is athletic sports. Three years ago I was a common weakling, but I began to take part in the athletic sports and now I hold first place in the track and inside sports. Here is another thing that applies to boys and girls both: If you want to develop the muscles of the arms, milk cows. Milking cows has helped wonderfully in developing my arms. I milk 5 cows night and morning. My father owns 20 Guernsey cows and one pure-bred heifer which is mine, besides a pure-bred bull.

I assure you that I will answer all letters I receive. So write. My address is Masonville Route, Loveland, Colo.

Forest N. Yockey.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.



A Farmer Boy Wrote It

The Farmers' Eagle and the Tinting and Mixing Chart were prepared for farmers by a man who grew up on a farm and knew farm problems. It was worked out to tell farmers what they would like to know about Eagle White Lead in Oil for farm painting, and to give them all needed information for its use. Working with this farmer-writer were the specialists of The Eagle-Picher Lead Company who had spent a lifetime studying paint problems.

When their work was finished, before it was printed, The Farmers' Eagle was submitted to practical farmers just to be doubly sure that it was a complete guide for painting on the farm.

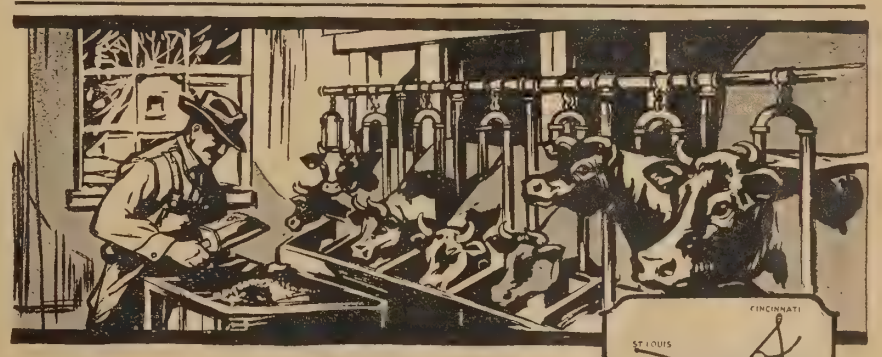
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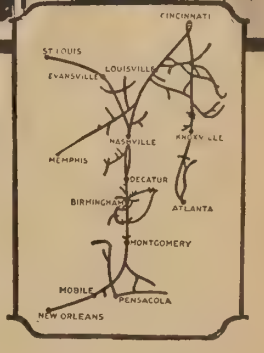
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When Winter Comes



—and it is soon coming again—you will have to go thru these long months of physical discomfort from the snow and sleet and ice; and the expense of heating barns and of extra stall feeding.

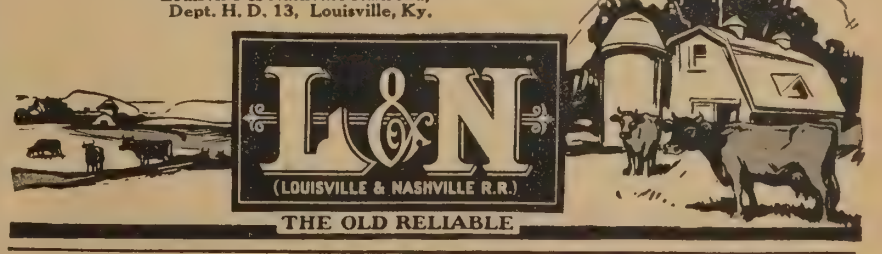
Why not get away from all of this?

Move your family and your business down South, where you can work and live more comfortably and, through decreased overhead expenses, make more money for yourself and get more out of life for your wife and children.

There are many desirable communities in the South where fine farm lands, suitable for dairying operations, are available at comparatively low prices and on easy terms; taxes are lower; labor is plentiful and cheap; forage crops grow at all seasons; heating of barns is not necessary; roads are good; markets are within easy reach; and there is a ready demand and a good price for the things you produce.

It's worth your looking into anyway! Just write us how you are fixed now, so that we can give you the data which will help you the most.

Address **G. A. PARK,**
General Immigration & Industrial Agent,
Louisville & Nashville Railroad,
Dept. H. D. 13, Louisville, Ky.



When Writing to Advertisers, Please Mention Hoard's Dairyman



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

Holsteins—Carload young cows $75.00. EDWARD YOHN, Watertown, Wis. 4-5

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Waupaca County high grade Holstein and Guernsey cows and heifers for sale in carload lots or will assist you in buying. JENNINGS FARMS, New London, Wisconsin. 5-7

Pure Bred Holstein Bulls, 10 months old, from A. R. O. dams. If you want quality, type and production at reasonable prices, write HIGHLAND MEADOWS FARM, Mauston, Wis.

Springers—8 second calf, grade Holsteins, bred to a 930.80 lb. junior two year old record, show bull. Also registered bull and heifer calves from above sire. R. L. ANDERSON, Whitewater, Wis. 7-4

Fine Herd registered Holsteins to place on shares. FRED HARRIMAN, Appleton, Wis. 7-3

We offer for sale about twenty head of very highly bred grade Guernsey heifers from sixteen to twenty-two months of age bred to registered sire, will calve at intervals from October through the fall and winter. Also young registered bull very reasonable. These heifers are from extra high producing dams and are the foundation of a great milking herd. Also three extra nice registered heifers bred in May to a bull whose dam as a three year old made 601 lbs. fat. Also four splendid registered cows to freshen this fall priced to sell, large well marked and well bred real foundation stock bred to the above bull. Also one young bull about ready for service, a show bull in every detail, excellent breeding, quick $75.00 MARA ALVA FARMS, Smithville, Ohio.

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Splendid Guernsey bull calf, A. R. dam. Sixty-five dollars. B. McADAM, Mosinee, Wis. 7-2

For Sale—Guernsey cows and heifers. Good producers. Priced reasonable. C. J. FRIES, Ogdensburg, Wis.

Buy a Herd Sire from a herd that is breeding up. We have increased our advanced registry average from 478 lbs. fat to 609 in three years. These are actual figures on young stock, not figured as aged cows. A few females. R. P. GUPTILL, Elcho, Wis. 7-2

Guernseys—Registered bull, age 8 months, also two grade heifers, bred, priced to sell. T. B. tested. LYNN BRIGGS, Van Dyne, Wis. 7-2

For Sale—Entire herd registered Brown Swiss, eighteen cows and heifers, herd bull, young bull. THOS. LOVE, Howell, Mich. 5-3

For Sale—A few high grade Brown Swiss heifers. S. M. GRAVES, Vine St., Beloit, Wis.

I have For Sale a carload of high grade Jersey milk cows with cowtesting association records, averaging 235 lbs. fat in 9 months. Over stocked. Mostly young winter cows. JOHN F. SAMUELSON, Irma, Wisconsin. 7-2

STOCK WANTED

Wanted to Buy—Brown Swiss cows, good milk producers, pure-bred or grades. Address, giving prices, WINDHAM FARM, Harvard, Ill. 6-3

Wanted—Registered Holstein bull old enough for service. Also heifer calves. THOS. FARLEY, R. 2, Waukon, Iowa.

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred Hunting Hounds cheap. Trial catalogue. BECK, W19, Herrick, Illinois. 5-4

For Sale—Pedigreed Airedale pups. JANEHURST KENNELS, Waukesha, Wisconsin. 6-4

Elegible Airedales, farm raised. Priced right. EMIL HOOVER, R. 8, Wabash, Indiana.

POULTRY

Single Comb White Minorca Cockerels. CHRIS LONKE, Sunman, Indiana. 7-2

SILOS

Silo Bargain—12x20 Washington Fir Silo. Never erected. ALBERT C. WOLLIN, Johnson Creek, Wisconsin. 7-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

FARMS FOR SALE

Farm land prices are low and terms easier than they will ever be again in the Northwest. Low round trip homeseeker and summer tourist tickets to Minnesota, North Dakota, Montana, Washington and Oregon. Free descriptive book. E. C. LEEDY, Great Northern Railway, Dept. 82, St. Paul, Minn. 23-*

Minnesota offers opportunities to farmers. Send for free map and literature. O. H. SMITH, Commissioner of Immigration, Dept. 676 State Capitol, St. Paul, Minnesota. 25-9

Buy my 45 acre irrigated fruit and dairy farm and registered Jersey herd in California. E. W. DOANE, Merced, Calif. 6-2

Found—In Wisconsin a great alfalfa, corn, potato, clover and dairy country. Shawano, Oconto and adjoining counties. Send for free picture catalog of farms. Deal direct, no commissions. WISCONSIN FARMERS & HOMESEEKERS SERVICE BUREAU, Marshfield, Wis.

For Sale—162 acre dairy farm 8 miles from Peoria, Ill., on concrete road. Excellent improvements, good well, two springs, fine community and excellent graded school one mile away. A real bargain. Owner, BOX A, Washington, Ill. 7-2

Farms For Sale—We sell farms, large and small, with rich soil located in Central Ohio near modern schools, highways, churches and towns at low prices with small amounts down and balance in 20 annual payments. Write THE MADISON COUNTY LAND COMPANY, London, Ohio. 7-2

$1000 Secure 330 acre farm, 32 cattle, 3 horses, crops, poultry, machinery, vehicles; lucky buyer should realize dreams of independence here; close town advantages, excellent markets; broad loamy fields cut 100 tons hay, other big crops; spring watered pasture, est. 2000 cds. wood, 200,000 ft. timber; 1000 sugar maples, 115 fruit trees; good 8 room house, cement basement barn, other bldgs; worth price of all. Must be settled at once, price now $8000, only $1000 required. A. B. CRUTE, 95 Chenanga St., Binghamton, N. Y.

Near Americus, Georgia, on paved road, 1025 acres, high grade farm, half cleared; running water, admirably located for dairy and division; creamery in Americus. $35 acre. PRESTON WILLIFORD, Americus, Ga.

For Sale, Dairy Farm—Two Hundred acres well improved farm, five miles from Thief River Falls, in the best dairy section where alfalfa thrives. Has a large house, large barn and other out buildings, best of soil. Price $75 per acre, $5000 cash, balance 1930, 5½%. Real farm for real farmer. If interested in securing good farm look this over now. For further information write H. S. DAHLEN, Thief River Falls, Minn.

For Sale or Rent—Dairy farm of national reputation, ½ mile from city limits of Waukesha, 12 miles from Milwaukee. All improved; on cement highway. J. D. BECK, Waukesha, Wis. 7-2

Register and Secure a Farm—Hundreds have already started on our wonderful colonization plan. Come and see their fine new homes. We will also help you start in Wisconsin. You can get 40 or 80 acre dairy farm for only $100 deposit and balance in 10 years. Close to big towns. Many neighbors. Best richest, gently rolling Wisconsin clay loam. Only $2000 for 40 with nice house, good barn, best milk cows. A greater opportunity than a U. S. homestead. Particulars free. NATIONAL LAND COLONIZING CO., Dept. G7, Madison, Wisconsin.

WANT TO RENT

Wanted to Rent—Fully equipped dairy farm, about 100 acres. Best of references furnished. BOX 50, R. 5, Marshall, Minn.

Wanted to Rent—Share basis, large dairy proposition in western state, Arizona, New Mexico desired. Experienced, reliable. R. D. 1, BOX 25, Gurnee, Ill.

Experienced Farmer with agricultural college training wants equipped Guernsey farm on share basis. Can furnish own help. Address BOX 254, care Hoard's Dairyman.

Wanted to Rent this fall good dairy farm with stock and equipment on 50-50 basis. Experienced and reliable dairyman with some capital. Age 37. Address BOX 259, care Hoard's Dairyman.

FOR RENT

For Lease—Model dairy farm fully equipped for certified milk. 18 miles from Washington. 200 cow barn capacity. Railroad station 1-4 mile from barn. Ample tenant houses. 100 acres of alfalfa. Annual milk receipts $40,000. Could be easily increased 50% to 100%. Leasing farm on account of death of owner. Executors can offer attractive proposition to experienced dairyman with capital. G. M. HUTCHISON, Sunset Hills, Virginia. 7-4

Farm for Rent in Central Wisconsin, 80 acres or more. Near school and town, good roads, fine soil under fine cultivation, plenty pasture. Stock and implements can be bought, small payment, or all be rented. Address BOX 246, care Hoard's Dairyman. 6-2

Cash Rent Lease—Ideal dairy and grain farm, east of Madison, without stock. 241 acres, two sets buildings. Adjoins live town with ten stores, schools, condensery. Possession October 1st. Address FARM OWNER, BOX 256, care Hoard's Dairyman.

PARTNER WANTED

Wanted—Dairy farm partner. R. N. SNOW, Pagosa Springs, Colo. 5-5

FARMS WANTED

Farm of 400 to 600 Acres Wanted. Need only be part under plow with good buildings and fully stocked. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

TOBACCO

Homespun Tobacco. Chewing 5 lbs. $1.75; Ten $3.00. Smoking 5 lbs. $1.25; Ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 5-4

Homespun Tobacco—Chewing, five pounds, $1.75; ten, $3.00; twenty, $5.25. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied, UNITED TOBACCO GROWERS, Paducah, Ky. 7-4

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MACHINERY

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 25-10

Cletrac Crawler Tractors. Used and new. CHADWICK BROS. CO., 430 Broadway, Milwaukee. 4-4

For Sale—Eight new cream separators never removed from box. Bargain prices for quick sale. THOMAS TAFFEE, Box 355, Lansing, Mich. 7-5

For Sale—Colt gas machine, fifty lights. Excellent condition; little usage. LEE CONKLIN, Warren, N. Y.

For Sale—A two-unit De Laval Milker, slightly used. Circle A cork brick for twelve stalls. One 1½ horse power 25-cycle Wagner electric motor. Prices very reasonable. A. S. BRENNEMAN, Lima, Ohio.

For Sale—Two double unit Universal milking machines with piping and stall cocks for 30 cows. Complete without engine. Price $200. D. M. HOILIEN, Westby, Wis. 7-2

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

MISCELLANEOUS

For Sale—Triplex autoknitter, new, extra parts, five pounds yarn. Price fifty dollars. HAROLD HAWES, Poplar Grove, Illinois.



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, willing to accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

Male Help Wanted—Firemen, Brakeman, for railroads nearest their homes—everywhere; beginners $150—$250 monthly (which position?) RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 3-5

Men—Women. 18 up. Get U. S. Government Life Positions. $95 to $192 month. Steady work. No layoffs. Paid vacation. Short hours. Pull unnecessary. Candidates coached. Common education sufficient. Full particulars free. Write immediately. FRANKLIN INSTITUTE, Dept. P107, Rochester, New York. 4-5

Wanted—Herdsman, to take charge of Guernsey herd, experienced in making A. R. records. Single man. Give reference. WM. M. JONES & SON, Waukesha, Wis. 4-*

Wanted—Young man, single, to learn herdsman's duties in herd. Imported Jerseys. Must be good milker. H. W. AYRES, R. 78, Jamestown, N. Y. 5-3

Wanted at Once—2 middle aged men who can milk 20 head of Jersey cows each. Must be clean. Good home and wages. SWISS DAIRY, Quincy, Fla. 5-3

Herdsman Wanted for State Institution in North Dakota. Jersey herd. We want an experienced feeder and good milker to take full charge. Apply at once, stating salary. Address BOX 248, care Hoard's Dairyman. 6-*

Wanted—Man for milk route and dairy work. Must be honest and reliable, neat in appearance and a gentleman. No cigarettes. State age, wages, experience, full particulars, and give references. Address BOX 241, care Hoard's Dairyman. 6-*

Wanted—Experienced herdsman to take charge of a Raleigh bred Jersey herd. Must be a man of good morals. Well posted on blood lines and breeding of Jersey cattle. Must be a real good milker. In fact he must possess all qualities that it takes to make a first class dairyman. This position pays $165.00 per month and house rent free. Address all communications to W. S. HONNOLL, Business Manager, State Insane Hospital, Jackson, Miss. 6-*

Wanted—First class milkers for certified dairy farm. Clean men, no quitters wanted. Hollanders preferred. ROBINS NEST FARM, Oak Hill, Illinois.

Position Open October first for experienced herdsman, single. Must be experienced in both short and long time test work, the production of certified milk and be able to handle men efficiently. Prominent Holstein breeding establishment. Modern barns. Good wages paid to man who can produce results. Give age, experience and references in first letter. Address BOX 255, care Hoard's Dairyman. 7-4

Wanted—Experienced married man to manage dairy and farm near Washington, D. C. Salary and percentage of profits. References required. DR. J. H. IDEN, Navy Yard Dispensary, Washington, D. C.

HELP WANTED

Wanted—A farm manager for large dairy farm near Minneapolis. Must be married and have some help of his own. Must be of German, Holland, Poland, Swiss or Belgian nationality. Address G. O. P. JACOBSON, 2204 Girard Ave., South, Minneapolis, Minnesota. 7-*

Wanted—Man to take charge of small dairy herd, pure bred Guernseys. M. RIGGS, Ironton, Mo.

Wanted—Working herdsman with experience to take charge and build up herd of Red Polled cattle and herd of Duroc Jersey hogs. Single. Will pay $50.00 per month with board and room. Good opening for an industrious man. Have an opening for single farm hand with experience. Address PINNEY-PURDUE FARM, R. H. Bamer, Supt., Wanatah, Indiana. 7-2

Wanted—One single man and a good milker for general farm work for six months. $45.00 per month. MILO BRAGER, Route 3, Blanchardville, Wis.

Wanted—First class dairy hand for work in pure bred Jersey herd. Must be good milker, clean and industrious. Give full particulars in first reply. MILAM FARM, Box 2006, Miami, Fla.

Wanted—Experienced dairyman-farmer preferably with help in his own family and small capital to invest. Established business. Good thing to right man. Address BOX 125, Boonville, Mo.

Wanted—Herdsman manager on large pure bred certified farm. Must be married with small family, capable of handling a large proposition. All information as to wages expected, experience, etc. in first letter. Address BOX 258, care Hoard's Dairyman.

Wanted—Married couple for large dairy farm. Man to work on farm, wife to run boarding house. A large proposition, pleasant working conditions with all conveniences. References required. Address BOX 257, care Hoard's Dairyman.

Wanted—Hustling married man to care for 200 acre hay and dairy farm, 15 to 25 cows. Wish to hire with privilege of renting. Good opportunity for right man. Will rent all furnished. Close to good school town. W. O. BOHART, Bozeman, Mont. 7-2

Position Wanted—By American, age 37, on a certified or grade A milk farm. Can handle certified milk from the cow to the consumer. Can use Babcock tester, keep records and take care of all minor ailments of cattle without the aid of a veterinary. Have 15 months' experience in the bottling house and know that work thoroughly. Can handle men and desire position where hard conscientious work will be appreciated. Best of references as to character and ability. Prefer the east but will go anywhere. Address BOX 262, care Hoard's Dairyman.

Wanted—Two families that have enough help to run a 400 acre grain and dairy farm on 50-50 basis. Good neighborhood, school. Hollander, Swiss or German preferred. Must give good reference. J. P. MAST, Scranton, Kansas. 7-2

Wanted—Experienced man to run 171 acre dairy farm fifty-fifty basis. Stocked grade Guernseys. Operator furnish horses, machinery, buy one half feed, alfalfa, silage. I. M. HUDSON, Benson, Minn.

Wanted—Reliable single man for small Guernsey herd. C. J. MINETOR, Altoona, Iowa. 6-2

Wanted—Young man, single, as herdsman in one the best equipped dairies in Maryland. Must be capable of managing men. Pure bred Holstein herd producing certified milk. Milking machines used. Salary $75.00 per month, board and room, to start. Only first class man considered, references required. Good opportunity. MILLARD L. RICE, Jr., Germantown, Maryland.

Married Herdsman—For Guernsey herd. De Laval milker used. Bulk milk sold. A. R. testing. Position open now. No liquor tolerated. In first letter give full details of experience, wages asked, and submit references as to character. Place also open for married man for general farm and dairy work. E. G. WOODWARD, Grassland Farm, Taconic, Conn.

POSITION WANTED

Superintendent, married, best reference, desires position on pure-bred dairy or stock farm. Address BOX 247, care Hoard's Dairyman. 6-2

Farm Manager—Open for position September 1st. Married, age 38 years, 2 children, 4 years in present position, managing 400 acres. Thoroughly understand farming, gardening, dairying and landscaping. Reference from present employer. In answering, please state full particulars. B. M. JARDINE, Lumberville, Pa.

Position Wanted—As milker of from 15 to 18 cows, while attending one year of high school. State nearness to school, number of cows, wages paid for such. KENNETH A. BROWN, R. 1, Janesville, Wis. 7-2

Position Wanted as Farm Manager—Age 25, single, experienced in general and dairy farming, graduate of farm management at Iowa State College. Best of references. DWIGHT H. OSBORNE, Walker, Ia.

Dry Hand Milker wants position. 20 cows to milk. Pay monthly. CHARLES H. TOBEY, Pine City, N. Y.

Married Man experienced, wishes position with large stock or dairy farm. Good hand milker. Address BOX 261, care Hoard's Dairyman.

Position Wanted—Farm foreman open for position. Married, life experience on large farms, understand stock and expert with horses. Address BOX 260, care Hoard's Dairyman.

Position Wanted by experienced feeder and test cow milker. Single, absolutely reliable. Address BOX 263, care Hoard's Dairyman. 7-2

Married Man, 28, one child, wants position on dairy farm. Life experience. State conditions and salary. Minnesota or Wisconsin. CLAUDE UPTAGRAFFT, Ladysmith, Wisconsin.

Position Wanted—Working herdsman, married, 38, thoroughly competent with pure bred cattle, official testing and feeding for test and production, calf raising, excellent butter maker. Open after Sept. 1st HERDSMAN, 4057 McRee, St. Louis, Mo.

SALE ANNOUNCEMENTS

Sept. 6—Holsteins. Iowana Farms Holstein sale at Davenport, Ia. O. E. Hatch, Mgr.
Sept. 6—Holsteins. Dispersion of the Chas. E. Hay herd at Findlay, Ohio. Ohio Holstein-Friesian Association, Managers.
Sept. 8—Cayuga County Guernsey Breeders' Ass'n., Auburn, N. Y.
Sept. 8—Holsteins. Dispersion of Geo. M. Flinn Herd at Medford, Minn., Twin City Pedigree & Service Co., Mgr.
Sept. 9—Guernsey Dispersal. M. A. Obercash, Hummelstown, Pa. (near Harrisburg).
Sept. 10—Holstein Dispersal Sale. J. C. Kostman, Bruce, Wis. W. H. Krause, Sale Mgr., Thorp, Wis.
Sept. 10—Holsteins and Guernseys, Barron, Wis. Holstein and Guernsey Associations of Barron County. De Lancey Bros., Sale Managers.
Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades. Dassel, Minn. A. B. Rayburn Mgr.
Sept. 12—Holsteins and Guernseys, Menomonie, Wis. Holstein and Guernsey Associations of Dunn County. De Lancey Bros., Sale Managers.
Sept. 15—Guernseys. Louis Merryman, Timonium, Md.
Sept. 16—Holsteins and Guernseys, New Richmond, Wis. Holstein and Guernsey Associations of St. Croix County. De Lancey Bros., Sale Managers.
Sept. 18—Holsteins and Guernseys, Eau Claire, Wis. Holstein and Guernsey Associations of Eau Claire County. De Lancey Bros., Sale Managers.
Sept. 19—Holsteins and Guernseys, Chippewa Falls, Wis. Holstein and Guernsey Associations of Chippewa County. De Lancey Bros., Sale Managers.
Sept. 26—Guernseys. W. E. Wright, Akron, Ohio. Ohio Guernsey Breeders' Ass'n., Wooster, Ohio, Sale Managers.
Sept. 30 and Oct. 1—Sale of grade cows with cow testing association records at National Dairy Exposition at Milwaukee, Wis. C. L. Hill, Rosendale, Wis., Sales Manager for National Committee.
Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.
Oct. 4—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.

Association Notes

(Continued from page 151)

The second cutting of alfalfa is ready to cut. One separator was tested and found O. K. One herd has just come through the T. B. test clean. Market milk sold for $2.30—$2.60 per cwt. The creamery paid 38—44 cents per lb. for fat.—C. L. Fleming.

Ottawa No. 1, Mich.: This association has just finished its first year. High cow, owned by John Park, produced 15,979 lbs. milk, 588.8 lbs. fat. Eighteen grade Jerseys, owned by Geo. Taylor, averaged 8,084 lbs. milk, 398.4 lbs. fat. Seventy-one unprofitable cows were sold from the route. The average production of 277 cows on test was 7,609 lbs. milk, 305.8 lbs. fat. Market milk sold for $2.60 per cwt. at Grand Rapids. The condensery paid $1.60.—T. McCarn.

Delta Co., Mich.: One new separator replaced a loser. Eight separators were tested and 7 found O. K. Three herds were tuberculin tested and one reactor found. The creamery paid 40—43 cents per lb. for fat.—C. R. Olson.

Prince William Co., Va.: The condition of the crops is very poor. The hay crop was much above normal. Wheat is threshing out about 6 or 7 bushels around this section. Some crops turn out as much as 20 bushels but they are exceptional. The association average dropped from 614 lbs. milk and 23.7 lbs. fat in June to 543 lbs. milk and 21.3 lbs. fat for July, due to the advancement in lactation period, dry, hot weather, and flies. The association expects to hold on the 17th of September a consignment sale of cows having cow test records with the standard for a mature cow of 300 lbs. fat.—T. T. Curtis.

Marion, Wis.: One machine shed was erected. One milk house was built and one barn remodeled. The cheese factory paid 40—43 cents per lb. for fat; the creamery, 42 cents.—S. E. Slotness.

Mt. Hope—Lancaster, Wis.: Thirteen members feed grain with pasture. Outside buyers pay as high as $150 per head for grade cows with cow testing association records. The local calf club has 7 members. The cheese factory and creamery paid 40—42 cents per lb. for fat.—B. G. Paulson.

Elroy, Wis.: Four cows produced over 50 lbs. fat; 23 over 40 lbs. Two herds averaged over 30 lbs. Ten separators were found not skimming clean. The creamery paid 44 cents per lb. for fat.—A. G. Steffen.

Mondovi — Gilmanton — Modena, Wis.: Thirty tons of oil meal have been distributed at $39 per ton. This was purchased co-operatively. Five herds were tuberculin tested and no reactors found. Two barns were whitewashed; 2 concrete silos finished.—W. E. Acker.

Central Monroe Co., Wis.: Twenty-eight reactors to the tuberculin test were found. One herd was wiped out entirely. One thousand pounds of bone meal were shipped in for cows. D. P. Jones sold 6 grade Guernsey heifers, coming 2 years old, on the strength of their dams' records in 5 years' previous testing, for $720. A few faulty separators were found. One man installed a double unit electrically driven milking machine. Another is building a milk house and installing steel stanchions, drinking cups, and concrete stalls. The condensery paid $2.00 per cwt. for milk; the creamery, 46 cents per lb. for fat. Milk retailed for 8 cents per quart.—V. Sorenson.

Greene Co., Mo.: Of the 250 cows tested, 17 produced over 40 lbs. fat, 4 over 50 lbs., and 6 over 1,000 lbs. milk. Nearly all dairymen are trying to have legume hay by sowing soy beans and cowpeas. Some plan to build silos. Market milk sold for $2.50 per cwt. and retailed for 10—14 cents per quart. The creamery paid 38 cents per lb. for fat.—V. L. Gregg.

Cass Co., Mo.: The 10 high cows ranged from 49.2 lbs. fat, the lowest, to 71.2 lbs., the highest. Several dairymen have expressed their intention of attending the National Dairy Exposition and going on the tour through Southern Wisconsin from Kansas City. The cow, Financial's Queen of Coleman, that recently broke the state record, is owned by a member of this association; also the famous Jersey sire, Rawleigh's La-Rilla Lad, considered the third greatest Jersey sire in the breed. This animal was recently loaned to the University of Missouri.—D. Pitney.

Hammond—Baldwin, Wis.: During the testing year, which ended last June, a total of 546 cows were tested, of which 332 were tested a full year. Forty-three cows produced 365 lbs. or over; 21 over 400 lbs.; 4 over 450 lbs.; and 2 over 500 lbs. Eight herds averaged over 300 lbs. fat. The association average is 7,044 lbs. milk, 271.7 lbs. fat. The high cow, owned by A. J. Wieberdink, is a registered Holstein. She produced 17,538 lbs. milk, 547.5 lbs. fat, making a profit above feed cost of $182.35. The high herd, owned by Fred Geurkink, consisted of grade Guernseys with a production of 7,620 lbs. milk, 377 lbs. fat.—O. Berkseth.

Kentucky Holstein Club Reorganized

A re-organization of the Kentucky Holstein-Friesian Club was started at the fifth annual convention of that organization on August 6th on the farm of R. M. Barker. Fifty breeders were in attendance. Mr. Barker was elected president; Lindley Henderson, vice-president; and Otis Ashurst, secretary-treasurer.

A committee consisting of D. C. Clark, Carl Giltner, and Professor J. J. Hooper was appointed to prepare a constitution and set of by-laws for the club and a program of work for the coming year. Stanley Combs, southern field representative of The Holstein-Friesian Association of America, is assisting in working out a program. A complete report of the program planned will be submitted at a meeting of the club to be held at the Seelbach Hotel, Louisville, September 11th.

Some of the speakers on the program that followed the business session were E. M. Prewitt of the Kentucky College of Agriculture; Mr. Clark, Allie Pearce, John Null, and Mr. Combs. A judging demonstration followed in which a number of cattle of the Barker herd were compared with the true type cow and bull models by Professor Hooper, who is one of the official judges of the National Holstein Association.—Extension Service, Holstein-Friesian Ass'n. of America.

The Illinois College of Agriculture will send a carload of animals to the National Dairy Show. An exhibit of feed for dairy cows, in which the college has been specializing, will also be shown, officials report.

HOLDEN Lime and Fertilizer **Spreader**

Sour soil means poor crops. Experts agree fertilizer is useless on sour soil—it must have lime. The "Holden" Spreader makes bigger crops. Guaranteed to handle lime in any form, fertilizer, phosphate, gypsum, wood ashes or crushed shells. **Cannot Clog. Try Spreader 10 days Free.** The Holden Lime and Fertilizer Spreader will make your soil healthy and productive. Spreads twice as far as any other; 16½ ft. Attaches to any wagon or truck. No holes to bore. Spreads evenly 100 to 10,000 lbs. per acre Handle material only once, from car to field. Get literature and low prices now and ask about 10 Day Free Trial.

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What about your soil?—your crops? Are they big and sturdy as they should be? Find out today with our free Litmus Test Papers—positive sour soil test recommended by all soil experts. Write for them now.

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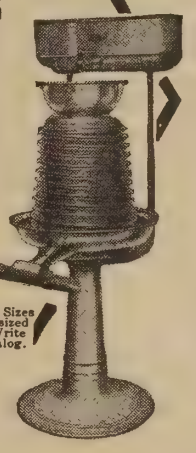
SPREADS 16½ FEET

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

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Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



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VEST POCKET HERD BOOK

The new editions contain numbered and lined pages; and have room for more records and services. We sold hundreds of these leather bound books last year and feel confident that with the small improvements the book will be even more popular. Book will accommodate herd of one hundred head. Complete with pages for full services, gestation tables, index, etc.

PRICE $2.00 ***Postpaid***

HOARD'S DAIRYMAN
Fort Atkinson Wisconsin

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

650 High Grade Dairy Cattle

WISCONSIN QUALITY **AT AUCTION** **HOLSTEINS and GUERNSEYS**

Producers' Sales, Auspices County Associations

The cattle for this series of sales are being *consigned and sponsored by the Holstein and Guernsey Associations of Barron, Dunn, St. Croix, Eau Claire and Chippewa Counties*—all area tested for tuberculosis. There will be approximately half Guernseys and Holsteins in each sale, with a few additions of high grade Jerseys, Milking Shorthorns, Ayrshires, and Brown Swiss. This territory is noted for its quality of grade dairy cows.

Barron, Wis., Sept. 10, 150 Head
Menomonie, Wis., Sept. 12, 150 Head
New Richmond, Wis., Sept. 16, 150 Head
Eau Claire, Wis., Sept. 18, 100 Head
Chippewa Falls, Wis., Sept. 19, 100 Head

Sales Beginning at 10 A. M.

Management of

De LANCEY BROS., Cooperative Sales Managers
3447 21st Ave. South, MINNEAPOLIS, MINN.

Geo. M. Flinn Dispersal

45 REGISTERED HOLSTEINS
(Federal Accredited Herd)

SEPT. 8th
Medford, Minn.

Established over 30 years ago. One of the oldest and best known herds in the Middle West. A real working herd built up on type and popular blood lines.

40 FEMALES Several A. R. cows with records up to 30 lbs. in 7 days and 800 lbs. in a year. Twenty-six cows and heifers due before Jan. 1st to maternal brother to first 1500-lb. cow. All of excellent type.

5 MALES Including King Korndyke Colantha Clothilde, the herd sire, a maternal brother to first 1500-lb. cow. Others are his sons and nearly ready for service. SEND FOR ILLUSTRATED FOLDER



WOODVILLE QUEEN
A Real Show 2-Year-Old.

TWIN CITY PEDIGREE & SERVICE CO.
211H Market Bank Bldg., MINNEAPOLIS, MINN.

Cayuga Co. Guernsey Breeders' Ass'n Sale

MONDAY, SEPT. 8, AUBURN, N. Y.
Frequent trolly service from Syracuse.

60 HEAD
the majority fresh or near freshening. A. R. and Show Cows of Merit

M. A. Obercash DISPERSAL SALE

TUESDAY, SEPT. 9
50 HEAD GUERNSEYS
May Rose Paxtang Breeding
An excellent opportunity to secure well bred individuals in working conditions.

HUMMELSTOWN, PA.
Ten Miles East of Harrisburg—Trolly Every Half Hour

FOR CATALOGUES WRITE—
LOUIS McL. MERRYMAN, Sparks, Md.

SALE Complete DISPERSAL of Holstein Dairy Cattle

SEPT. 3d, 1924
SALE CALLED AT 1 O'CLOCK P. M.

FIFTY HEAD OF CATTLE consisting of 3 registered cows, 1 registered bull, 40 head of high grade cows and heifers, and 6 head heifer calves. Ten of these cows to be fresh this fall, 5 to be fresh at time of sale, and 16 head heifers to be fresh within the next two months. This herd is of our own raising and each animal is well bred and grown. This herd has been headed by Fairlawn Fobes Ormsby 241510, a paternal cousin of Sir Pietertje Ormsby Mercedes. Herd is under federal supervision. Sale to be held on farm one mile west of Iowa State College Dairy Farm, Ames, Iowa.

SEARLE DAIRY, Owners

POULTRY On The DAIRY FARM



The Accredited Poultry Flock

HOARD'S DAIRYMAN:—The accredited farm poultry flock corresponds to the cow testing association herd of dairy cows. That is to say, chickens are judged according to their performance—ability to produce eggs. For instance, in Nebraska a hen can not qualify for the accredited farm flock if she demonstrates a markedly inferior egg production, evidences a lack of breed characteristics, is diseased, or is of inferior size. Such a hen is eliminated from the flock before November 1, each year.

These are negative qualities of an accredited farm flock of poultry. Among the positive virtues required are: Flocks must have 50 or more producing birds, standard-bred within the breed and variety; must have an average production of 85 eggs the first year, 100 eggs the second year, 115 eggs the third year, 135 eggs the fourth year, and 150 eggs the fifth year; males used for breeding purposes in the accredited farm flock are required to conform to the breed characteristics and have egg production blood lines representing not less than 125 eggs the first year, 150 eggs the second year, and 200 eggs the third, fourth, and fifth years; hens shall be fed for egg production; and the management of the flock shall be such as to create a most favorable environment.

The accredited poultry flock project in Thayer County, Nebraska, is a noteworthy example illustrating the methods employed and the results achieved in this extension activity for improving chickens kept on farms. All told, 25 flocks containing an average of 3,549 hens were enlisted in the project upon its completion. These birds produced 49,140 eggs or an average of 138 eggs to the hen in the course of twelve months. The sale of eggs from these hens represented an income of $10,030.04, and the sales of poultry contributed an additional $3,192.04. Thus, the farmers owning these 25 accredited flocks received a total of $13,222.08 for poultry and poultry products in one year. On the other hand, the cost for feed was $2,480.32, which accounting does not take into consideration the feed picked up by the hens around farmyards.

One large flock, maintained on a 10-acre farm, required that all of the feed eaten by these chickens be purchased. This expenditure represented $1.07 per hen, although the average feed cost of all of the birds in the 25 flocks was only 70 cents for each hen. The feed cost to the contrary, the farmers sharing in the benefits of this accredited flock project received $10,741.76, or $3.05 per hen, above the cost of feed. The financial returns from the most prolific egg-producing flock was $5.52 per hen and the income from the poorest flock was 67 cents per hen.

If this Thayer County, Nebraska, experiment is to be accepted as a criterion, the light breeds of poultry are greater egg producers than the heavy breeds. The former averaged 148 eggs per hen and the heavy breeds 121 eggs to the hen. This represents a margin of 27 eggs in favor of light breeds of chickens as egg layers. On the other hand, the heavy breeds offset this handicap with respect to stock sales, since when disposed of in the form of meat the light breeds made an average of 64 cents per hen and the heavy breeds $1.39 per hen. The latter comparison, however, cannot be accepted on its face value since the sales of poultry stock included young as well as mature and breeding chickens. Moreover, 54.09 per cent of the heavy breeds were marketed during the year, while only 37.53 per cent of the light breeds were sold. All of which is responsible for the following comment of L. C. Christie, county agricultural agent of Thayer County: "Due to these facts the returns for the year favored the heavy breeds. They returned a total of $3.19 per hen above feed cost and the light breeds $2.94 per hen."

The accredited poultry flock project in Nebraska has assumed formidable proportions. More than 200 farms are enlisted in the work, representing 28,876 hens. Nearly 15,000 hens were culled because they were unprofitable. The eggs produced by these improved flocks of chickens in one year totaled 254,214 dozen, or a few more than 21 carloads. The income from the sale of eggs and fowls was $63,553.50, whereas the expense of feeding was $15,441.38. Thus, the net income from these chickens, fed for egg production, was $58,162.12, which is equivalent to a net income of $2.16 per hen.

S. R. WINTERS.

Feed at Fault

I am writing to ask advice from you about our chickens. To begin with, we hatched them in April, about 40, and they hatched fine. We fed them, to start with, baby chick feed and buttermilk mash with a little rolled oats. They did not eat the mash very good dry so I made it crumbly moist. When they were about six weeks old we fed coarser scratch feed and growing mash. A few weeks ago we began to feed boiled wheat and scratch feed morning and night and boiled mashed potatoes mixed with bran and some of the growing mash at noon.

We have White and Buff Rocks. The white ones did not grow so very good from the start, long drooping wings and small for their age, but the Buffs grew fine until a few days ago when they began to get sick, first the Whites and then the Buffs. Some are sick a day or two and others longer.

Dousman, Wis. C. J. H.

The difference which you have noted in the vigor and vitality between the White and Buff Rocks is undoubtedly just a characteristic. You just happened to get a vigorous bunch of Buff Rock chicks, while the White Rocks were lower in vitality or else conditions have weakened this factor to a certain extent. There is really no difference between the two varieties except breed lines that have been established back of them.

I should judge from the description which you have given here that your feed has been too sloppy and there wasn't enough hard material in it for chicks that were in confinement. Whenever it is necessary to restrict seriously the range, one will find that a great deal better results can be obtained by allowing them a heavy grain feed with a correspondingly smaller amount of dry mash and practically no wet mash at all. This point was very well stressed this spring during the weather that we had throughout the state when people that insisted upon keeping the chicks shut in during that time experienced a serious loss, while those allowing them to run out came through all right, and also those that compromised by keeping the chicks closed in but taking away the mash feed and allowing practically nothing but grain feed or mash for only a short time in the middle of the day, were also able to bring them through satisfactorily. One farm that I recollect at this time had two lots. One was closed in and given dry mash continuously, and these chicks went to pieces while the other chicks that were handled in the other way came through in very fine shape with practically no loss.

I don't believe that there is any disease present in these chicks, but I would take away the moist feed which you are giving them, feed them heavier on grain feed about three or four times a day, keeping them just on the edge of being hungry at all times, supply an abundant amount of green feed, and if possible give them some form of milk to drink until they come back into condition again. After this is done the dry mash can gradually be returned and by cutting down on the amount of grain feed the mash consumption can be greatly increased.—J. B. HAYES.

There'd Be More Money in Cream and Eggs If ---

—producers paid closer attention to quality. The United States Department of Agriculture, in a report of the defects in the quality of butter, states that producers and manufacturers of inferior quality dairy products receive annually several million dollars less than they would if they did not permit imperfect conditions and methods in production, marketing and manufacturing.

The same thing is true with eggs.

These are perishable products, and proper production and handling have everything to do with quality, and quality has everything to do with the price received.

Quality Begins With Production

Here are two products whose faults are easily detected. The consuming public, as a whole, is willing to pay more for good butter and eggs, but a degree of goodness consistent with higher price is not possible unless quality starts with production—on the farm.

The Chicago Mercantile Exchange—whose large "spot" and future trading markets give it first place in the distribution of butter and eggs—speaks from experience and authority when it says that more painstaking methods in the production of these food essentials will bring to the producer prices that make such care and labor highly profitable.

CHICAGO MERCANTILE EXCHANGE

LA SALLE ST. at LAKE ST.

The Market Place for Butter and Eggs



Embury SUPREME OIL LANTERNS

You will save money on Embury Supreme Oil Lanterns. They're so strong that only the roughest kind of usage can harm them, and they will outlast several "cheap" lanterns.

Ask to see No. 160, which costs $1.50, except in the far west. Its improved burner gives 20% more light and burns for 35 hours. Wind-, dust-, dirt- and rain-proof.

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If he has none in stock, we will mail on receipt of price.

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Improved filter removes dirt. Solid drawn steel. Easy to keep sweet and clean. Full twelve-quart capacity. Will last a lifetime. Send no money. Pay $2.00 and postage on receipt. *Money back if not satisfied.* Write for our free Dairymen's Supply Catalog.

GOWING-DIETRICH CO., Inc.
205 W. Water St. Syracuse, N. Y.

Will Cut Your Bacteria Count

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Sudden Blindness

Farm animals sometimes suddenly lose the power of seeing, yet the eyes show no sign of disease and indeed are particularly bright appearing, the pupils being much dilated, a fact which has led to the term "glass eye" as a name for the condition in the horse. In that animal the trouble usually proves permanent and incurable and as concerns a stallion it has been considered fit cause of disqualification for public service, as it possibly may prove hereditary as a tendency. In all animals it is liable to occur from any great shock to the system. We have seen it attack animals immediately after castration or any operation that has caused a considerable loss of blood. It may also result from a serious attack or derangement of the digestive organs and be a symptom of cottonseed meal poisoning. In the latter condition, however, one notices a blood-red ring around the pupil which is absent in other cases; for in most instances of the disease inflammation is entirely lacking.

The disease technically is termed amaurosis or "palsy of the sight" and is a paralysis of the retina and optic nerve of the eyes. It may be seen at birth in some calves and foals and we have seen it follow difficult calving, in which case it may subside in time; but it tends to remain as a permanent condition when caused by loss of blood, an operation, or difficult parturition. But the form of the ailment to which we particularly wish to draw attention here is amaurosis suddenly affecting a cow during the latter part of pregnancy. She simply becomes blind, yet not a thing can be seen amiss with her eyes. They do not close and weep, neither is there swelling of the eyelids and redness of the lining membranes, such as is seen in conjunctivitis, or "pink eye". The pupils are dilated and the eyes peculiarly bright as if belladonna or atropia had been applied or administered. Apparently the blindness is caused by undue pressure upon nerves, or is reflex from such pressure, but possibly it is due to some effect upon the brain by elements absorbed into the blood circulation in association with the pregnant state. The exact cause is unknown.

Hardened Quarter

We have a Guernsey heifer that will be fresh in August. The last few days she has come in with one rear quarter hard as can be. Could you advise me how to treat this heifer? She does not show signs of having been sucked or hurt in any manner, no bruise or cuts, nothing from exterior appearance.

Cape Girardeau, Mo. A. H. M.

As often stated here such a condition of a quarter of the udder of a heifer is sometimes caused by calves sucking the teat at the time of life when calves are penned together and fed on skimmilk. The sucking causes secretion of milk in the udder and when the calves are separated the milk may curdle and a slight attack of garget result. To prevent that, calves should be stanchioned when fed milk and be given dry meals after the milk and before turning them loose. Sucking of the udder should be prevented. Bruise would be another possible cause. Treat by fomenting the quarter several times daily with hot water, stripping away some of whatever fluid is found present and in the evening rubbing in warm melted lard containing 1 dram each of turpentine and fluid extract of poke root per ounce. Thorough hand massage is most effeetive.

Warts

Please send us a remedy for warts on cow's teats.

Wisconsin. F. R. A.

Warts that have thin necks may be snipped off with scissors, a few at a time; then apply tincture of iodine. Twice daily for at least 5 minutes saturate the teats in water containing all the bicarbonate of soda it will dissolve when hot. Then dry gently and apply a thick paste of salt, flowers of sulphur, and cold pressed castor oil.

Controlling Abortion in Cattle

(Continued from page 148)

for abortion control as the annual test is for tuberculosis control.

A Program for the Infected Herd

1. Test all animals to identify those not infected.
2. If the percentage of reactors is below 15 or 20 sell them to the butcher.
3. Clean the barn thoroughly. Remove all litter, bedding, straw, feed, cobwebs, and dust that could possibly have had contact with the infected cows.
4. Disinfect the barn by wetting thoroughly all woodwork and concrete with a 5 per cent solution of compound solution of cresol.
5. Before bringing the abortion-free cattle into the disinfected barn wash their feet, legs, bellies, and tails in a 3 per cent solution of compound solution of cresol.
6. Clean out the yards, pens, and corrals where the infected cows have been by piling and burning the trash and litter and raking up all the manure and hauling it to some cultivated field.
7. Sprinkle chloride of lime freely on the cleaned yards and turn it under. If possible allow three to six weeks of sunshine on these yards before any cattle are placed in them.
8. Test the herd each 30 to 60 days, removing any reactors. Keep this up until the herd has passed three successive tests. Frequently there will be some reactors on the second test and occasionally one or two will be found on the third.
9. When a clean herd has been established keep it clean by following the program for such a herd as outlined above.

For a Badly Infected Herd

If the first test reveals a very high percentage of reactors the best procedure depends upon the records of the reacting cows. The production of the reactors as a group should be studied. This is usually so low that they are not profitable. If they are profitable sell them to the butcher. Then proceed as outlined above.

If the reactors are showing a profit separate them from the healthy animals. Handle the abortion-free animals according to the program already outlined. Handle the reactors as follows:

1. Keep them in a separate barn, run them in separate pastures, and do not ever allow them to come in contact with the disease-free herd.
2. Have separate caretakers for the two groups of cattle.
3. Remove calves from the infected dams when they are three days old. Feed them milk from the clean herd for two or three months. Then they may be placed with the calves of the clean herd. When removing calves from the infected herd always wash their feet, legs, bellies, tails, and rumps with an antiseptic solution before they are placed in the clean barn.
4. As the reacting cows become sterile or unprofitable from any other cause sell them to the butcher.

"The greatest glory is not in never falling,
But in rising every time we fall."

JERSEYS

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

Belswood Farm Jerseys

Offering bred or open heifers. Heifer calves. Bull calves. Herd Federal Accredited. Write for pedigrees and prices.
A. F. BLOCK, Mgr. Norwood Park, Ill.

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

"Just Jerseys"

Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.

The Oaklands, R. 5, Ann Arbor, Mich.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
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FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.



Raleigh's Torono's Meme 544207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood

We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.
HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

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Breeders of—
HIGHEST QUALITY REGISTERED
SILVER BLACK FOXES
Fully Guaranteed Breeding Stock for Sale



It will pay you to investigate this wonderful new industry. We solicit your consideration.

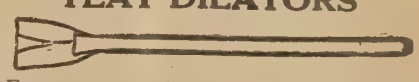
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Members of the National & Wis. Fox Breeders' Ass'ns.

Roosevelt Strain MORMON ***Silver Foxes***
PROLIFIC BREEDERS STRONG—HEALTHY Animals Guaranteed



Largest profit producing live stock in the world. A great many Dairymen already started, large profits with very little additional work. You waste enough every day to feed several pair. Don't hesitate, write today for our catalogue and information, its interesting.
UNITED STATES SILVER FOX FARMS,
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MEDICATED WAX TEAT DILATORS



For sore teats, obstructions, Spiders, Hard Milkers, etc. 25c per doz., or 5 doz. for $1.00, postpaid. MOORE BROS., Dept. H, Albany, N. Y.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

AYRSHIRES

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.
W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.
Herd Federally Accredited—Certificate No. 10241.
Price: $125.00
GLEN FOERD FARMS, Torresdale, Pennsylvania.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.
CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.
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Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.
Wm. NISBET & SONS, Richland Center, Wis.



Edgerstoune's Luxury Bond
Born Aug. 10, 1923

Edgerstoune's Luxury Bond

A Promising Young Bull For Sale

His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.
EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

New York Experiment Station Jerseys

(Continued from page 149)

has been subjected to 858 tuberculin tests. The test showed six animals to be tubercular which were later proved tubercular. Since 1905, the tuberculin test has shown three animals as tubercular which displayed no evidence of the disease. Three possible errors in 858 tests are as accurate as one could ever expect such a test to be. Such inaccuracies are very minor when one considers the fact that the Station herd has had no tuberculosis since 1905, a period of 18 years.

Table 2—Tuberculin Tests on the Healthy Herd, 1901 to 1922 Inclusive

Date tested	TESTS ON ISOLATED HEALTHY HERD: Total No. tested	No. of reactions	Remarks
1901, Oct.	17	4	Disease developed since last test
1902, June	13	0	
1902, Dec.	13	0	
1903, April	15	0	
1903, Dec.	20	0	
1904, May	24	1	Reactor brought from untested herd
1904, Nov.	25	0	
1905, May	28	1	Reactor proved tubercular
1905, Nov.	30	0	
Total	185	6	Every reactor was tubercular
TESTS AFTER NO DISEASED ANIMALS WERE ON THE PREMISES			
1906, May	24	0	
1906, Nov.	37	0	
1907, June	30	0	
1907, Nov.	34	0	
1908, Oct.	36	0	
1909, May	39	0	
1910, Sept.	40	0	
1911, Oct.	35	0	
1912, Oct.	36	0	
1913, Dec.	29	0	
1914, June	34	0	
1915, May	33	1	No tubercular lesions
1916, May	32	0	
1917, May	32	0	
1918, May	33	0	
1919, Oct.	30	1	No tubercular lesions
1920, Oct.	32	0	
1921, Oct.	32	0	
1922, Nov.	33	1	Intradermal and ophthalmic tests negative
1923, Nov.	42	0	
Total	673	3	No proved tuberculosis
Grand total healthy herd	858	9	Six had tubercular lesions

The herd has been kept free from the disease for 18 years by carefully observing the precautions against reinfection which have been taught by those most familiar with the disease. The tuberculin test has served as the means of locating infected animals so that they could be removed from the herd.

(EDITOR'S NOTE: This is the third of a series of four articles by Mr. Dahlberg on lessons from the herd experience of the Geneva Station for the past quarter of a century. The next will appear in an early issue.)

Does Official Testing Pay?

Official testing causes only a very small amount of extra work and involves only a reasonable expense, and yet many breeders and dairymen who should be carrying on official testing hesitate to do so.

Many breeders undoubtedly have individuals in their herds which if officially tested would make a good showing, and in some instances might even put up a remarkable performance. A case of this sort occurred in California, and it will probably be of interest to all breeders and dairymen.

The Alta Cresta herd, owned by Mr. A. W. Nolan of California, had been in the course of development for the last twenty years, but no official testing had been done. In 1922, Mr. Astroth, fieldman of the American Jersey Cattle Club, persuaded Mr. Nolan to put some of his Jersey cows on Register of Merit test. None of these cows had ever been tested before but the results obtained were exceptionally good.

During the past year two state class records have been broken, and one gold and one silver medal have been won. Two more cows now on test are also reasonably sure to win gold medals.

Onward Girlie Bertha, owned and bred by Mr. Nolan, has just finished a test in which she produced 710.33 pounds fat in 365 days. Bertha is expected to calve very shortly and on this record she should qualify for a gold medal and for the state junior three-year-old Jersey championship.

Jewel Princess of A. C. also completed a year test in which she produced, with calf, 672 pounds fat. This record won for her the Jersey senior three-year-old championship of California as well as a silver medal awarded by the American Jersey Cattle Club.—American Jersey Cattle Club.

SWINE

HAMPSHIRES

Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

BROWN SWISS

ANNOUNCEMENT

KINNELON FARMS, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name ownership and location.

The entire herd was moved during the month of August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.

The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.

Herd fully accredited, Certificate number 65301

LEES' HILL FARM, New Vernon, N. J.
P. O. Morristown
MR. AND MRS. WARREN KINNEY, Owners
HARRY KROEMMELHEIM, Herdsman

FOR SALE -- Purebred Brown Swiss Heifer Calves

SIRE—HAWTHORN IMPERATOR, bred at Hawthorn Farms. Dams—Promising young cows. Herd Federal tested—Clean test in 1924.

GEO. W. HARRIS & SONS, Wethersfield, Conn.

GUERNSEYS

GUERNSEY

Production is increasing
Values are increasing
Demand is increasing

Resulting in a good market for your surplus stock. Let "The Story of the Guernsey" give you the details. Ask for it,—we will do the rest.

THE AMERICAN GUERNSEY CATTLE CLUB
Box HD-120 Peterboro, N. H.

Hillswold Farm Guernseys
W. A. CLOUES, Mgr., Shrewsbury, Mass.

74-Guernsey Cattle at Auction-74

On September 26th, beginning at 10:30 A. M., W. E. WRIGHT, AKRON, OHIO, will disperse his entire Mountrose herd of Guernsey Cattle consisting of 42 COWS, 20 HEIFERS, and 12 BULLS.

19 cows have advanced registry records averaging 575 lbs. fat. 21 females are daughters of Cherub's Sergeant of Shorewood, the best proven son of the great show bull, Ladysmith's Cherub. The bulls include eight young sons of Sergeant and one son of Cherub's Prince. Herd under federal supervision.

AUCTIONEERS: FRED W. AND WALTER F. ANDREWS

The sale is under our management. Write us for advance circular and for catalog.

OHIO GUERNSEY BREEDERS ASSOCIATION WOOSTER, OHIO

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

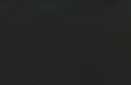
HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO
For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

Thorn Hill Farm Guernseys



Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

HELENDALE GUERNSEYS

Several bull calves approaching service age $65.00 to $75.00. Bulls three months and older, $50.00 and up. Best of A. R. breeding.

WM. A. ERBACH, D. V. M.
Athens, Wisconsin

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

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This is the first of our annual sales. All stock included is of the highest quality, selected from our best herds.

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Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

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N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

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Bred to Langwater Africander

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BULLS 6 to 10 Mos. Old
From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

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Will be Dispersed
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60 HEAD -- 56 Females, 4 Bulls

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A clean herd under state and federal supervision

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Desirable grandsons of Iowana Sir Ollie, sired by Sir Ollie Mooie Watson and North Star Gift Champion. Dams have records up to 32 lbs., also good year records. Write or visit us.
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1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.
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Wisconsin State Institutions have for sale pure-bred Holstein bulls, all ages. All from big 1,400-lb. cows of good type, having creditable yearly herd records. Buy our calves. Raise them yourselves. Save money. Some ready for heavy service. Write us your needs. Also a few slightly blemished cows, splendid type, good breeding cows.
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Toyon Galaxy Model Segis
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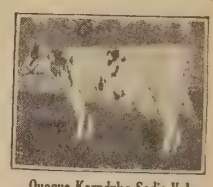
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CRYSTAL STOCK FARM offers choice, high-grade Holstein heifer calves at $17. Pure-bred bull calves, $30 and up. Crated f .o. b. our station. High-grade Holstein Springers, carlots or less, pure-bred cows and heifers at farmers' prices. Before you place your next order write
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To be held in connection with the Holstein Breeders' Picnic at the Farm, Saturday, Sept. 6. We have selected 25 top animals --
20 FEMALES and 5 BULLS
Among the females, there are two big typy daughters of Sir Johanna Fayne, one bred yearling daughter of Oak De Kol Ollie Homestead (Twice Grand Champion at the National) and twelve daughters of our Senior Herd Sire, Meadow Holm Ona Hartog King, a son of the great Ona Clothilde De Kol (1,100 lbs. butter from 25,000 lbs. milk). Among the daughters of "Ona" there is a beautiful yearling out of a 1,000-lb. 4% daughter of Sir Johanna Fayne. Several others from good yearly record dams.
A son of "Ona" from the show cow, Iowana Fayne Star. She holds two Iowa State records for milk and one for butter as a Jr. 2-year-old, and was Sr. Champion at Iowa State Fair 1922. A yearling son of "Ona" from the show cow, Lady Johanna Aaggie Fayne.
Sale at the Farm, 7 miles northeast of Davenport, on the Clinton-Davenport road
COL. J. E. MACK, Auctioneer. *Send for circular and catalog*
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Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.
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200 Carloads of Holsteins
is our motto for this year. We can supply you with as many as you want. Carload lots our specialty. Fine selection, courteous service, and reasonable prices. Less than one-half of one per cent T. B. Home of the World's Greatest Bull Association.
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Burr J. Hoover, Secretary Howell, Michigan

OUR 1000-LB. COWS
Michigan State Herds now own eight cows with records above 1000 lbs. butter in a year, and they were all bred and raised, as well as developed and tested, by Michigan State Herds. The list includes:

NEWBERRY CANARY DE KOL,	7 Yr.,	Butter	1231.75,	Milk	26053.6
TRAVERSE COLANTHA WALKER,	5 "	"	1220.21,	"	24850.6
NORTHERN AAGGIE LONGFIELD,	5 "	"	1147.90,	"	26074.9
TRAVERSE HENGERVELD WALKER,	4½ "	"	1123.33,	"	26129.1
TRAVERSE INKA JOHANNA 2d,	4 "	"	1080.20,	"	25151.1
TRAVERSE WALKER EN TRAIN,	6 "	"	1056.81,	"	23458.3
TRAVERSE SEGIS QUEEN,	8 "	"	1029.66,	"	25889.4
REFORMATORY CENTURY PONTIAC,	5 "	"	1018.96,	"	21920.3

10 others from 907 to 986 lbs. butter. 18 cows average 1021.07 lbs. butter and 23671.4 lbs. milk. Bull calves from yearly record cows. Send for pedigrees.
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Department B Lansing, Michigan

A Carload of Young Registered Cows
From our herds and those of our neighbors you can select a carload of young cows bred to freshen this fall and early winter at very reasonable prices. Let us describe them to you, or come and see them.
CARLETON COLLEGE FARMS, Northfield, Minnesota
Federal accredited herd

A YEARLY RECORD BULL --- Ready for Heavy Service!
BORN JANUARY 23, 1923
We offer one of the good sons of SIR WALKER SEGIS HOMESTEAD, (a proven show bull with 32 A. R. O. daughters) who is a son of "PIEBE" out of a 1230-lb. world record daughter of "COUNT." His dam as a three year old heifer made 20853 lbs. milk and 753 lbs. butter in 305 days. The two nearest dams of this bull average 991 lbs. butter on long time test. He is quite dark in color, a good individual and priced for a quick sale. Send for pedigree and photo.
A. J. LASHBROOK Northfield, Minnesota



Sir Walker Segis Homestead

Grahamholm Herd
We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.
GRAHAMHOLM FARM,
D. G. Tweatyman, Manager Rochester, Minnesota

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where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. **JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.**

Richly Bred Holstein Bull Calves
out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.
Herd tuberculin tested. Write for information or visit herd.
P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

For $250
Son of a 1024-lb. yearly record granddaughter of King of the Pontiacs. Grandson of Sir P. O. M. 41st. Born Nov. 8, 1923. Splendid individual, good size, mostly black.
B. A. NORRIS, ANOKA, MINN.

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We have from 100 to 500 high grade and registered cows and heifers for sale at all times. Also choice registered bulls of each breed. These cattle come from the best herds in western Wisconsin. They are selected from the largest federal tested territory in the state and are assembled in the largest and most sanitary sale barn in the northwest.
West Salem is on the main line of the C. M. & St. P. and of the C. &. N. W.
Write us or better still come and select just what you want.
O. G. CLARK & CO., - - - - WEST SALEM, WISCONSIN

A YEARLY RECORD HERD
The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.



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THERE is no need any longer to carry your light with you in oily lanterns. No need to depend so largely on human muscles for power for doing treadmill chores. No need to break backs over buckets of water.

A simple, dependable, economical Kohler Automatic Power and Light Plant is ready to light your buildings with safe electricity, do dozens of hard jobs in the house and around the farm, and pump running water wherever you want it.

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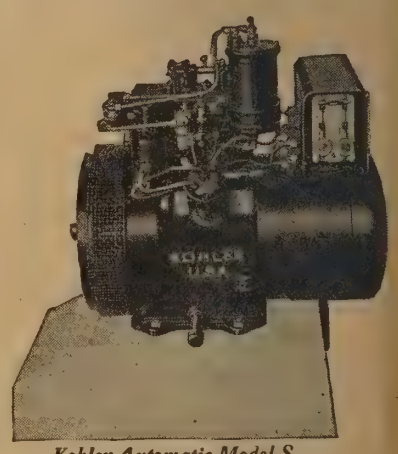
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"I consider the operating expense very low. Its construction is such that its consumption of oil and gasoline is very meagre. It needs but little attention and is very economical."

[Signed] *Jas. A. Patterson,*
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For as little as $435 you can buy an 800-watt Kohler Automatic embodying all these principles of advanced design. And this price, remember, is for the plant complete, including starting battery and 55-gallon gasoline storage tank—on easy payments if you like.

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Other models, manually or automatically started, 800- to 2000-watt capacity; price range, $360 to $795, complete with starting battery (for automatic units) and 55-gallon gasoline storage tank with fittings

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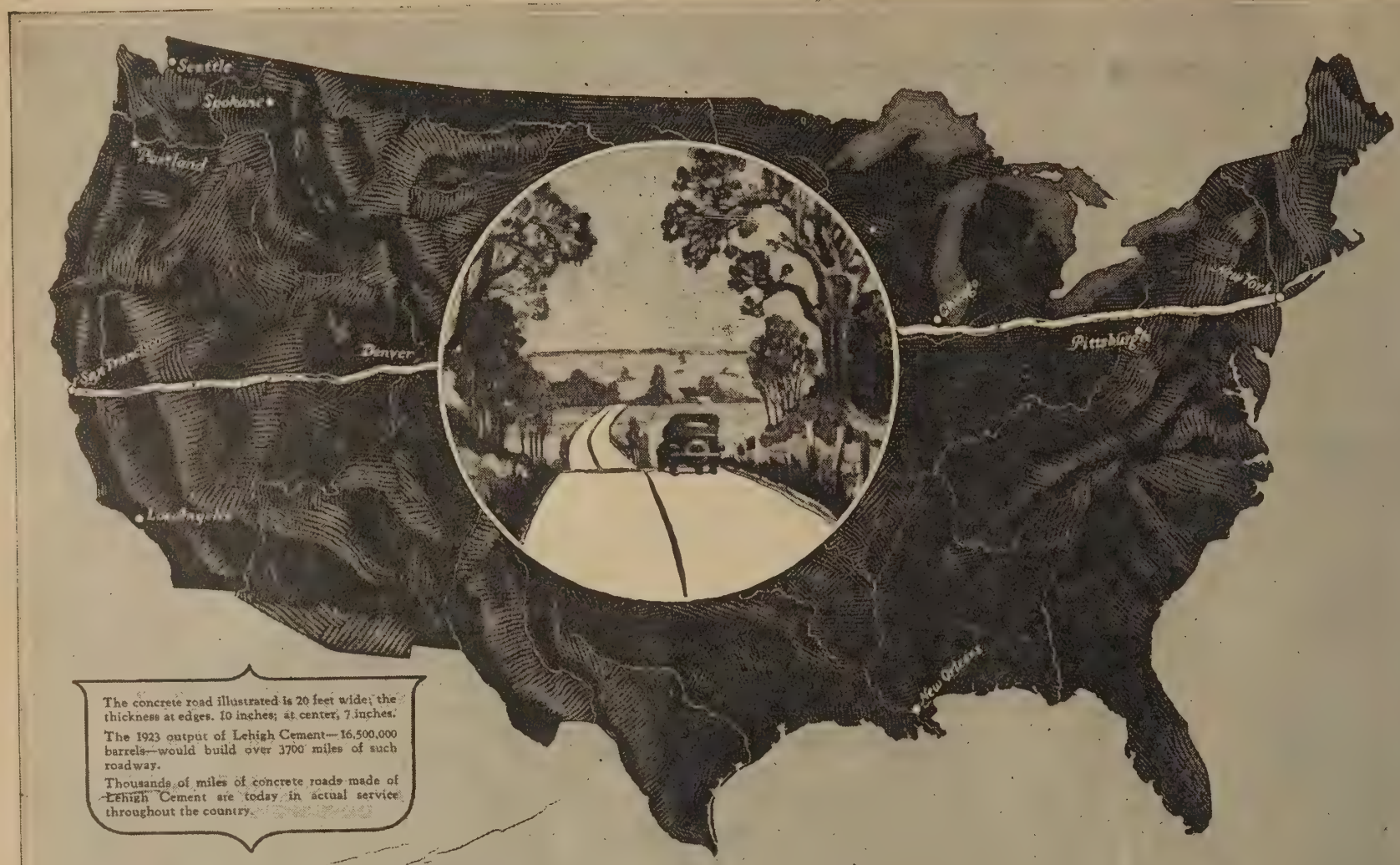
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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 8 Fort Atkinson, Wisconsin September 5, 1924



The concrete road illustrated is 20 feet wide; the thickness at edges, 10 inches; at center, 7 inches.

The 1923 output of Lehigh Cement—16,500,000 barrels—would build over 3700 miles of such roadway.

Thousands of miles of concrete roads made of Lehigh Cement are today in actual service throughout the country.

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Today thousands of barrels of Lehigh Cement are being shipped to city, town and country to satisfy the increasing demand for high quality portland cement.

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LEHIGH CEMENT

HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., SEPTEMBER 5, 1924 Number 8

EVER FAILING OR NEVER FAILING PASTURE

Growing Six Months' Feed

Part 10.

WILBER J. FRASER, University of Illinois

THESE articles have cited much experience showing the inevitable failure of bluegrass and the surprising advantages and economy of sweet clover pasture. But troubles have been found and failures have occurred in growing this crop and, for this reason, many imagine that sweet clover is a difficult and uncertain crop to produce. It is worth all the effort necessary in raising it to have the pasture that brings the results the hundred men answering the questionnaires report. We must have the sweet clover if it is at all possible to produce it. So the most successful procedure has been studied in many fields, has been learned from many growers, and has been tested out on my own farm for several years. And the following seems to be a real guide to success.

The Two Great Essentials

Sweet clover does, however, have two requirements that are absolutely essential to its growth, namely: soil that is not acid and inoculation. Complying with these requirements makes the difference between success and failure in raising the crop. Experienced growers, almost without exception, report no trouble in securing a stand after the soil has been limed and inoculated where needed.

This is a new crop and it is not strange that many growers should at first overlook or ignore this preparation. These two requirements are being taught by farm advisers. They are pointing out scores of failures caused by lack of lime or inoculation, and citing other hundreds of successes where they are supplied. These are among their principal demonstrations and are well established facts, which are now coming to be generally known.

Always Test the Soil

Two tons per acre of ground limestone are ordinarily needed, but where the soil is very acid, four or five tons may be required. The soil should be tested in all cases before seeding sweet clover to discover whether the soil is acid and whether it needs much or little lime. The Mather Test—known to every farm adviser and every agricultural student, even in high school—will tell the story in two minutes.

Sweet clover often grows along the fence row or roadsides, and people make the mistake of concluding from this that their soil is not acid. The fence row has not been cultivated and hence has not lost its lime, while the tilled field adjacent has been worked for many years and is quite likely to be deficient in lime. The soil for two or three rods from the fence along a gravel or macadam road is usually sweetened by the lime dust that blows from the road, and for this reason, sweet clover may grow along the road when it will not further back in the field. The ground limestone should be applied and mixed into the soil three or four inches deep, at least six months before seeding.

It has been found by many actual tests, as well as by the luxuriant growth of the sweet clover, that one application of ground limestone will keep the soil sweet for ten to fifteen years. On one field of very acid soil, with which I am familiar, four tons of limestone were applied 20 years ago, and sweet clover still grows luxuriantly. Sweet clover seeded on acid soil will usually make a start and cause the farmer to think he is going to get a stand, but later in the season it turns yellow and dies.

See What the Growers Say

"Last year was the first I had success with sweet clover. I sowed it two years before on the same field without having it limed and got a good stand, but in the fall the plants turned yellow and died. This shows that we can not grow it on acid soil without lime."—U. Greenfield, Northern Illinois.

"I sowed 20 acres of sweet clover and there was only about three acres of the 20 that had been limed. I got very little sweet clover except where the land had been limed. It is useless to sow the seed here unless the land is limed."—Wm. Croddy, Southern Illinois.

"Where the soil is acid, limestone must be used. The first year's stand is usually not as good. The next year the acidity of the soil has been neutralized and the soil better inoculated, and this insures a better stand."—Bernard Schilling, Southern Illinois.

The Best Variety to Raise

Biennial white sweet clover is the kind recommended for dairy pastures. It will frequently grow successfully where alfalfa and other clovers will not grow at all. It is a sure "catch" when sown on sweet and inoculated soil. With ten consecutive years' seeding at the University of Illinois, a stand was obtained every year, while in the same ten years only five stands of red clover were secured. This variety of sweet clover develops such large, deep roots that it withstands the drouth, withstands heaving in the spring if allowed a fair growth the summer before, makes the most pasture, and is most beneficial to the crops that follow. Care should be taken in buying seed to get this variety rather than some smaller strain or the annual Hubam.

R. L. Black of Central Illinois in seeding 40 acres of sweet clover got Hubam by mistake, with the result that the second year he was entirely without pasture for his large herd for three and a half months—a tremendous loss.

The smaller biennial varieties do not produce as much feed per acre and they die sooner the second year before the new seeding in the grain stubble is ready, making a very awkward and expensive break in the pasture season.

Important to Have Scarified Seed

The seed should be scarified to break the hard coating in order that it may germinate more readily the first year, and a good stand be secured. Scarification has been known to raise the germination from 25 to 97 per cent.

Amount of Seed

A wide difference of opinion exists among farmers as to the amount of seed to sow per acre. I have raised sweet clover on my own farm for 10 years and never sowed over five pounds per acre, yet have always gotten a good stand where the small grain did not lodge and smother the young clover.

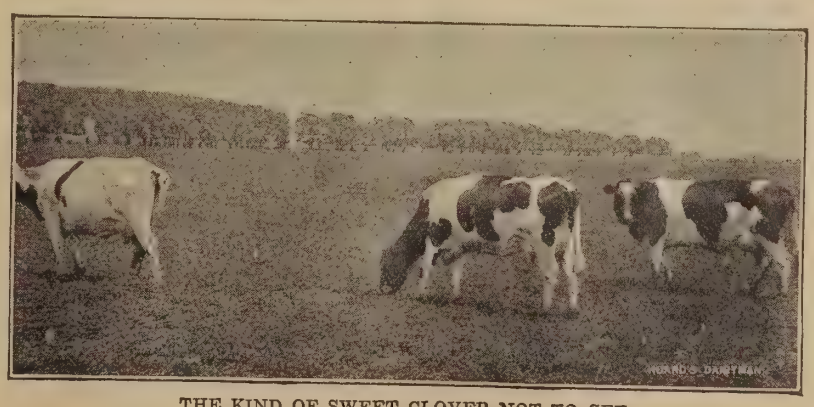
The 81 questionnaires received this spring showed that some farmers sowed five pounds while others sowed as much as 20 lbs. per acre. Some of the men reported excellent stands and others thin to medium stands, whether a small or large amount of

(Continued on page 187)

No Luck to Growing Sweet Clover

Sweet clover has two requirements that are absolutely essential to its growth, namely, soil that is not acid and inoculation. Hundreds of men have tried growing sweet clover without providing these conditions and have failed, while their neighbors who did provide them, succeeded.

The biennial white variety is the best for pasture because it develops large, deep roots that enable it to provide a more continuous growth and withstand drought better. This variety also affords a longer pasture season.



THE KIND OF SWEET CLOVER NOT TO GET

"The mistake of sending me biennial yellow instead of the biennial white sweet clover seed has damaged me a thousand dollars, because my cows will be out of feed most of the time until the new crop is ready in two months," said Dan Meade of Northern Illinois. This clover pasture had a big start, being 10 inches high May 10, when 29 cows were turned on 26 acres. But on June 26 when the picture was taken, it was eaten tight to the ground and had nearly stopped growing for the season, after furnishing feed for less than seven weeks.



SHOWING THE EFFECT OF LIMING ACID SOIL

Sweet clover was seeded on all this field. The portion to the left was limed, and here the sweet clover made a good stand. On July 18, 1923, when the picture was taken, the clover was three feet high and nearly ready to cut for seed.

On the part to the right, where no lime was applied, scarcely a single sweet clover plant could be found.



MR. McKNIGHT AND A GROUP OF HIS YOUNG STOCK

SIXTY-FIVE FROM ONE

A Story of a Pure-bred Cow on a Connecticut Farm

WALTER STEMMONS, CONNECTICUT

THIS is the story of a cow—"Lady Sylvia of Barnstable" 21156. She wasn't a phenomenal cow so far as milk production goes, averaging about 5,000 lbs. of milk, year after year, but in thirteen years she left her mark on the dairy industry of Tolland County, Connecticut.

The farm of John T. McKnight lies in the famous Connecticut Valley tobacco district. There are 100 acres of tillable land on the McKnight farm, smooth and with hardly a stone. It is as good tobacco land as can be found in the Valley. And yet there isn't an acre of tobacco grown on the McKnight farm. Perhaps to the average reader this statement will not mean much, but to one familiar with farming operations in the tobacco district it requires an explanation. The explanation goes back to "Lady Sylvia Barnstable". To her owner, John T. McKnight, she demonstrated that there is a lot more fun, and perhaps about as much profit, in a pure-bred Guernsey herd than in a tobacco farm.

"Lady Sylvia Barnstable" has gone to her reward. She was born at Concord, N. H., in 1906, and as a calf came to Barnstable on Cape Cod. At the age of 4½ years she came to Mr. McKnight's Oaklawn Farm in January, 1911. She was then with calf for the third time. This calf, later registered as "Lady Jane Sylvia" 36528, shares with her mother the honor of building up the present excellent Guernsey herd at Oaklawn Farm.

When "Lady Sylvia" dropped out in January, 1924, she had a record of sixty-five descendants born at Oaklawn Farm. The list included thirty-nine heifers and twenty-six bulls. In the thirteen years she remained at Oaklawn Farm, she directly accounted for thirteen of the sixty-five descendants. Twelve of these calves were dropped in May and one in June. Regularity was a passion with "Lady Sylvia". Even her milk production and her fat tests varied little from year to year. She was never sick, never lost a feed, and never had udder trouble.

"Lady Sylvia" is the only pure-bred female that Mr. McKnight has ever bought. He paid $150 for her in 1911. He has owned only pure-bred Guernsey bulls since 1911 and by buying a better bull each time has endeavored to build up the production of his herd. The daughters of "Lady Sylvia" have beaten her in milk production but not on fat tests. Even there, however, she has left her mark on the herd, for the average fat test for the herd runs 5.5 per cent.

There are now twelve milking cows in the herd. Two of them are the surviving remnants of the grade Jersey herd that Mr. McKnight owned at the time he bought "Lady Sylvia" and the first Guernsey bull and started to build a Guernsey herd. These two grades represent, of course, the best of the original grade herd. They stand alongside the pure-breds and there is little to choose from except that, of course, they do not show the close family characteristics of the "Lady Sylvia" line. Merely by using pure-bred bulls on his original grade cows, Mr. McKnight could have built up a grade herd almost as good in production as his present pure-bred cows. However, he preferred pure-breds and his original investment of $150 in "Lady Sylvia of Barnstable" is the only extra cost of the pure-bred herd. Where is the man who "can't afford a pure-bred herd"?

Mr. McKnight now has a fine string of heifers coming on. All replacements will be from the Lady Sylvia line. Every heifer calf that shows promise is kept in the herd until she has had a chance to prove her ability. With her first calf she is expected to produce at least 6,000 lbs. of milk. If she cannot do that there must be a very strong excuse or Oaklawn Farm sees her no more. At present there is no cow in the herd more than four years old. Mr. McKnight has faith that his heifers will keep up production. In fact, any heifer that doesn't show more promise than her dam is a disappointment.

This system of herd management has required that each bull be replaced by a better animal. That wasn't so difficult when the basis of production was 5,000 lbs. for a mature cow, but with 6,000 lbs. demanded of a heifer with her first calf it has come to be more of a problem. The present bull, "Langwater Governor of Carteret", was sired by the famous "Langwater Warrior" from an imported cow and was purchased as a calf at the big Langwater Sale in 1922. It was one of those happy purchases sometimes made at big auction sales when the weird turn of crowd psychology enables the shrewd buyer to gain possession of an animal which ordinarily would be out of reach of his pocketbook. Although now only a two-year-old, the bull shows great promise. Growing out young stock is an especial hobby with Mr. McKnight and under his care the bull is developing into an outstanding animal.



LADY SYLVIA OF BARNSTABLE

This cow has a record of 65 descendants born on Oaklawn Farm, owned by John T. McKnight. The list includes 39 heifers and 26 bulls, all born within the past 13 years. She, herself, is the mother of 13 of these, her daughters and granddaughters accounting for the rest. This is a rather unusual record of building a herd on one cow.



CAREFUL ATTENTION IS GIVEN TO CURING CLOVER HAY AT OAKLAWN FARM

For two years the herd has been accredited as free of tuberculosis. There has never been a reactor in the herd, perhaps largely due to the fact that he has bred from a healthy foundation and in thirteen years has brought no females into the herd from the outside.

Guernsey cream, Guernsey cows, and hay are the principal products sold from the farm. Some vegetables are grown commercially, especially peas and cabbage, but dairying is the main industry despite the evident temptation to tobacco growing and market gardening which the smooth Connecticut Valley offers. For over twenty-five years Mr. McKnight has been growing alfalfa hay, although never with perfect success, chiefly because fields are too level to permit proper surface drainage in early spring. He does get excellent results with clover. There is a market for all the hay the cows do not require.

In summing up the returns which "Lady Sylvia of Barnstable" has made on that original investment of $150, we might mention some of the following: Thirteen years of steady milk production of remarkably high fat test, and a healthy calf every year; the sale of eleven females; the distribution of several good pure bred bull calves as sires for other herds; a growing demand for surplus cows from the herd; and, finally, an entire herd of twenty-two pure-bred Guernsey cows and heifers free from tuberculosis or abortion.

Perhaps the question is not so much: "Can I afford to own a pure bred herd" as it is "Can I afford not to"?

Why Illinois Dairyman Should Believe in T. B. Test

B. H. OLDS, OHIO

I WISH to reply to the article under the heading "Dozen Reasons Against T. B. Testing". I don't blame you, Mr. Illinois Dairyman, from being ashamed to sign your name to your article! I am addressing the gentleman who has been so terribly misinformed in regards to tuberculosis eradication work, the man who is the owner of around fifty head of high grade Holsteins, so high that they are valued at $200 each, and according to his article they are nearly all infected with tuberculosis.

No doubt the subject of "Tuberculosis Eradication" has been of great interest to you, but I believe you have obtained your information on the subject from the wrong source. Please do not misinform your friends if you like them.

I am a farmer and have some cows and, best of all, I have some friends who have cows. Surely, my salary would not be stopped if tuberculosis eradication work should stop. However, I would hate to think of living in a country allowing such a condition to come to pass.

In answer to each of the dozen reasons which you gave against tuberculin testing I will say:

1. That scientists will disagree on any subject just as long as there are scientists, with all due respect to them. Even though we take it for granted that bovine tuberculosis is not transmissible to man, how many of you readers want your children to drink milk from cows known to be affected with tuberculosis? I dare say that there is not one, including Mr. Illinois Dairyman himself, if he is lucky enough to have any.

2. The three tuberculin tests which are used to diagnose bovine tuberculosis, namely, the subcutaneous, intradermal, and ophthalmic tests, are considered to be extremely reliable and accurate the world over, when they are properly applied. When they are applied dishonestly or otherwise, please call them something else besides tuberculin tests.

3. It is true that a comparatively small per cent of reactors show tuberculous lesions in the udder. However, since it is impossible for us to tell where these lesions are located and what stage of development they are in, without holding autopsy, I can see the advisability to condemn all reactors in order to be sure and eliminate the spreaders of the disease.

4. I dare say that the statement which you refer to, as being false or misleading made to cattle owners in order to induce them to submit their herds, are made by misinformed persons and not by the schemers and political grafters which you referre to, whose enormous salaries depend so largely upon tuberculosis eradication work. I have conversed with many of those fellows and they have failed, so far, to make me any false or misleading statements.

5. Mr. Illinois Dairyman, if you should sign the contract and submit your high valued, grade herd of tubercular cattle to the tests, I will assure you that if that contract is one which is co-operating with your state and federal governments, you will

(Continued on page 180)

DOWN IN GEORGIA

J. H. REED, GEORGIA



A ROAD SIGN THAT SPEAKS FOR ITSELF

WITHIN the next three years, Georgia will be the "Wisconsin of the South". Not only will she be supplying herself with cream, butter, cheese, and poultry products, but she will be supplying Florida's growing tourist trade and the fast-opening markets of Cuba, Central and South America as well.

I make that statement conservatively, from a knowledge of Georgia's performance during the past three years and from a study of Georgia's economic advantages for production and transportation to market.

Three years ago there were just three creameries in Georgia, and they made approximately 7,000 pounds of butter that first year and had a difficult time securing cream enough to make that much. Last year, however, there were nineteen creameries in the state, producing more than 2,000,000 pounds butter.

Three-fourths of this production have been in one county—Turner County. And there are 160 counties in Georgia as well fitted for dairy production as Turner County.

Just the other day the People's Bank of Tignall—one of the smallest banks in the entire state—set aside a fund of $10,000 in order that it might secure its share of the $5,000,000 federal aid fund for the purchase of live stock from the new Intermediate Credit Bank at Columbus, S. C.

This gives the People's Bank of Tignall a fund of $110,000 to loan out to farmers wishing to purchase dairy cows. It will enable farmers to secure at least 1,000 first-class dairy cows in Wilkes County.

What's to prevent creamery butter production from making another 5,000 per cent gain in the next three years? What's to prevent it from pyramiding at even a greater rate of increase?

Nothing—as I have said—except the lack of a suitable market.

Take the local market, first. There are approximately 3,000,000 people in Georgia according to government census statistics. Figures compiled by the United States Department of Agriculture say that the per capita consumption of butter is 16 pounds per year.

Three million times sixteen gives us 48,000,000 pounds of butter consumed annually in the state of Georgia—let's call it 50,000,000 pounds to make it a round figure.

Figures from the Department of Agriculture show that the farm production of butter in Georgia is 30,000,000 pounds. That leaves a demand for 20,000,000 pounds of creamery butter that must be supplied from other sources than the farm. The local creameries produce about 2,000,000 pounds of this demand—about one-tenth. The rest—18,000,000 pounds—is shipped in from New York, Wisconsin, Iowa, and other great dairy states. Not much question of demand for the next year or two, is there?

And when you consider the Georgia dairyman has cheaper land, cheaper buildings, cheaper labor, cheaper feed, less tuberculosis to contend with, and a longer season for pasturage—with butterfat bringing the same prices as that on the Milwaukee and Chicago markets—you can readily see that the Georgia dairyman is going to take advantage of the economic situation. He is going to run foreign butter right off the Georgia market with its own product.

Even granted that the Georgia market was filled in a year or two—there is still a gap of some 17,000,000 pounds to be filled. Georgia enterprise will find where these markets are in short order when the need arises—and Wisconsin is apt to find Georgia a keen competitor, not only as regards quantity and prices, but as regards quality as well.

Now we come to our foreign markets and that's a point I want to impress upon dairymen everywhere. Do you known where that 6,000,000 pounds of butter we exported last year went?

If you don't know, you'd never guess.

Four-fifths of it went to Cuba, Central America, and South America. Cuba, the largest importer of butter from us, took, last year, 1,500,000 pounds.

Last year we exported 30,000,000 dozen eggs to these countries. Cuba took 12,000,000 dozen. The same sort of a market exists for poultry and meats of all kinds.

When the Georgia demand has been satisfied—when the demand at home has been filled—Georgia can turn to the Central and South American markets and dispose of all the creamery butter and cheese she can manufacture. And what's more—she can do it more cheaply than can New York or Wisconsin because of her proximity to the markets and her advantageous freight and water rates.

With the proper storage facilities in Savannah the Georgia creamery can get its products to Cuba, to the West Indies, to South America much more cheaply than the northern creamery.

In a few years Georgia will go out after the South American trade. And make no mistake—she will capture it. She can produce more cheaply than any other section. She has better lines of communication—shorter lines of communication—with her South American markets than any other section. She has cheaper freight and ocean rates.

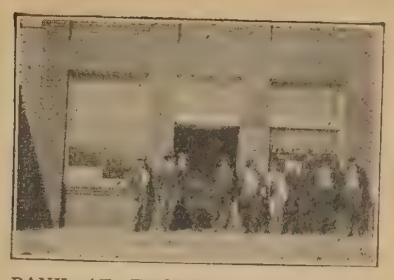
And she has something else that other southern states don't seem to have acquired yet—the will to do. When she needs something, her business men go out and get it for her.

Even now, preliminaries are under way for a farm products warehouse in Savannah—a warehouse where butter and cheese, eggs and poultry can be held and fed out to the Central and South American trade. If these plans go through it will put Savannah on the map as one of the country's leading ports of shipment for farm products.

Much of this progress has been due to the Georgia Association—a non-profit organization supported by the farmers and business men of the state with headquarters at Atlanta—which has brought national attention to Georgia by sponsoring the cow—sow—hen program and which, through that program, has changed the credit system of the state.



HISTORIC MIDWAY CHURCH IN LIBERTY COUNTY, GEORGIA
Two of the signers of the Declaration of Independence were members of the congregation of this church.



BANK AT TIGNALL, GEORGIA, FINANCES PURCHASE OF COWS

The Georgia Association has worked out a long-term farm loan purchase plan, built up on the dairy cow, which is offering a boon to the live stock farmers of the North and West almost equal to the old "free land" days on the public domain. As a result, not only are Georgia farmers learning how to handle dairy cows, but many dairymen are coming in from other sections of the country.

The day when Georgia was a market for butter and cheese is fast drawing to a close. In another year or so she will be an exporter of dairy products—not an importer. But in the next five years Georgia is going to be *the best market in the United States for pure-bred stock.* So it's an ill wind which blows nobody good.

If the northern dairymen will rise to the present opportunity and press the sale of good stock instead of bewailing the loss of a good butter and cheese market, they will make more money from the section in the next 5 years than they have in the past 10.

Everywhere banks are lending money to farmers for the purchase of dairy cows. Everywhere the farmers are turning to the dairy cow as a basis for intelligent farming. Everywhere creameries and cheese factories are springing up to give a profit to their owners and to the neighboring farmers alike.

Georgia is on her way to be the "Wisconsin of the South".

Another Good Idaho Record

One of the best records in Idaho dairy history has been reported by Secretary M. H. Gardner of the Holstein-Friesian Association of America. This record is that of Sarcastic Mercedes Lassie. "Lassie" started test on January 20, 1923, at the age of 7 years, 8 months, and 12 days. In 365 days she produced 22,439.5 lbs. milk containing 845.76 lbs. fat which is equivalent to 1,057.2 lbs. 80% butter. "Lassie" was placed on official seven-day test six weeks after freshening at which time she is credited with 612.8 lbs. milk and 23.524 lbs. fat which is equivalent to 29.4 lbs. 80% butter, or over 4 lbs. butter per day.

"Lassie" was bred by the Hendershot Land and Live Stock Company of Idaho and is now owned by Mr. E. G. Ehlers.

Idaho G. C. ANDERSON.



A "COW-HOG-HEN" FARM THAT TWO YEARS AGO WAS A COTTON PLANTATION



STACKS OF LOREDO SOY BEANS ON A WILKES COUNTY, GEORGIA, DAIRY FARM



MONTHLY HOG-SALE DAY AT THE CO-OPERATIVE STOCK YARDS OF ASHBURN, GEORGIA

Hungarian Vetch in Oregon

E. R. JACKMAN, OREGON

OVER the western horizon a new forage crop has appeared, Hungarian vetch. The average person in the Middle West is apt to think of vetch in the same way as he sings of bananas "—yes, we have none." But along the coast in the Pacific Northwest, vetch has a real place and is grown by the thousands of acres. In entire counties it is one of the principal forage crops and is used for hay, silage, and is often threshed for seed.

Hungarian vetch was first grown at the Oregon Experiment Station in 1908. Harry Schoth, in charge of the forage crop work there, gathered together all of the vetches of commercial importance in the world. After several years of trials the Hungarian emerged from among about 400 others and claimed attention.

Mr. Schoth says of this new vetch, "Hungarian has two big advantages over the common—it is almost aphis proof and it will grow on some land which is too wet in the winter for the ordinary variety. A man, on some of the poorly drained land, can plant this and it will survive through the wet winters. It is a little more winter hardy than the common, too."

In the fall of 1922 the county agents of 11 Western Oregon counties secured seed of the new vetch and tried it out on from 1 to 25 farms in each county. I had a chance to see a good many of these fields last summer and to talk with the growers.

It must be understood that in the Willamette Valley of Oregon the winters are mild and grass is green the winter through. Most of the vetch area is ordinary spring vetch fall planted, rather than the hairy vetch which is more winter resistant.

Howard Wagner of Corvallis was one of the first to try the new vetch. He says: "Hungarian will grow on some land too wet for the common, but people musn't get the idea that they can plant it in a swamp and have it grow. The land where it will do well and common won't, because of wetness, is probably limited to a few counties, but there are thousands and thousands of acres of land around this country that are just a little too wet for common—just wet enough in the winter so that the common will live some winters and won't in others. On those acres the Hungarian will grow."

"The aphis-resistant feature appeals to me," said Mark Lafky of Junction City, "I have had my common vetch cleaned out by aphis a time or two but they don't like this new variety. I regard it as a kind of crop insurance. I seed it back on the same land for 2 or 3 years without plowing and so get rid of a lot of expense and the crops get better every year."

Trials are extensive in Washington County in the northern end of the Willamette Valley. O. T. McWhorter, county agent, says, "Hungarian has not demonstrated its superiority over common to any great extent in our county except as a seed crop. It will unquestionably produce more seed than the other, at least 25% more, and this is important for a lot of our folks are growing seed. On the good, well drained land such as most of ours is, the common will perhaps make more forage except in the occasional aphis year."

Coming further south in the Willamette Valley I saw A. C. Heyman who, as a county agent, tried it out thoroughly in Linn County. This county has thousands of acres of flat land which will not grow common vetch due to its inability to come through the wet season on this type of land. Mr. Heyman says, "I examined last spring every field of Hungarian vetch in this county and I am sold on it 100%. It will make a good legume hay crop on a lot of dairy farms here which lack such a crop now."



VETCH FIELD IN THE WILLAMETTE VALLEY

It is being tried out in several counties as a cover crop to plow under and to enrich the soil in orchards and berry patches. It has proved to be particularly well adapted to this purpose in Multnomah and Jackson counties.

"Where in the United States will Hungarian vetch probably be grown?" I asked Professor Hyslop, head of the Farm Crops Department at the Oregon Agricultural College.

"In the first place, on probably 100,000 acres of Western Washington and Oregon land which is just a little too wet for common. Then as a cover crop on several thousand more acres of our fruit and berry lands. Outside of this district its uses are yet to be demonstrated. It is probable that there is a place for it as a cover crop and green manure crop in the South Atlantic and Southern States, but that is yet to be demonstrated. We are mostly concerned with it as a crop which will stand a little more severe conditions than ordinary vetch and one which does not have the disagreeable volunteer habit of the hairy."

I next pursued the trail of the vetch to the dairy barn and asked R. C. Jones of the Dairy Department of the Oregon Agricultural College how the cows seemed to like it. It had developed that farmers, county agents, and experiment station men had a good word for it and if the cows also endorsed it, that clinched the matter so far as I was concerned.

Professor Jones reported—"The cows seem to like this vetch and take to it with more than ordinary relish. It has a theoretical feeding value as high as alfalfa, but I doubt if feeding tests would show it to be quite as good. We are planting quite a lot of it for our own dairy herd and can recommend it to Western Oregon dairy farmers."

The value of this new crop may be appreciated when it is realized that it is a legume hay crop with yields running from 2 to 4 tons per acre on ordinary land and that Western Oregon is short 240,000 tons of legume hay. It is one legume which will grow on acid soil. The introduction of this crop will cut down the feed bills of thousands of dairymen and will be a distinct asset in the building up of the dairy industry of Oregon.

An Arkansas Dairy Community

E. B. MATTHEW, ARKANSAS

AMID the gloom that seems to envelop many farmers, it is greatly refreshing to find a locality where a beam of sunlight has broken through the cloud of despondency. There is such a community in the Oakdale school district of Arkansas. This community is made up of small farm owners whose holdings range from 40 acres to 160 acres. Until three years ago the farmers here were like the farmers in thousands of other cotton-growing areas; they handled very little cash during the year before cotton-picking time, and then only to pass it on to their creditors at the close of the season. Cotton was their sole dependence. The land gradually produced less cotton, although more fertilizer was used. Then the boll weevil came. Last year on some farms it took 18 acres of cotton to make a bale.

Three years ago the Smith-Hughes agricultural teacher put on a program of diversified farming. He advocated dairying and poultry raising. Up to this time no cream had been shipped from this locality and the poultry consisted of a few mongrel flocks raised for family use only.

A recent survey of this community by the state supervisor revealed that ninety per cent of the farmers are now on a cash basis through dairying and poultry raising. Each farmer has from 5 to 12 cows and a small flock of poultry. The cream is shipped to a creamery twelve miles away. The investigator spent an entire day interviewing the farmers of this neighborhood and found them uniformly optimistic, hopeful, and contented. The dairy herds were small but showed intelligent management. There is a concerted community breeding program. Good sires are used on ordinary Arkansas grade cows, and the heifers are retained with a view to herd improvement.



THIS FLOCK OF 72 HENS PRODUCED 600 DOZEN EGGS IN 5 MONTHS. THEY BELONG TO C. F. LENDERMAN

A typical situation is that of Mr. J. J. Lenderman. He milks 9 cows, raises his own feed, and has an income from his cream shipments sufficient to support the family, thus leaving for profit his cotton, sweet potatoes, and other products. Mr. Lenderman has a herd of Jerseys that he is justly proud of. His herd sire has a splendid production record back of him. The heifers are retained and in time Mr. Lenderman expects to develop a herd that will be a credit to any community. Mr. Lenderman also has a Percheron horse project that is unusual in a cotton section.

Mr. C. F. Lenderman, while interested somewhat in dairying, specializes in poultry. He, like all the farmers visited, keeps records and can tell offhand just about what his flock and herd produce. Mr. Lenderman's records show that from 6 dozen hens he secured 600 dozen eggs from January 1 to June 1. The remarkable thing about this flock is that it was bred up from a mongrel flock of hens by using pure-bred cockerels. Here is demonstrated most conclusively the possibilities of breeding up a low-producing flock by the use of well selected males.

Every farmer visited during the day's inspection was found working in the field. The majority of them were cultivating or planting feed crops. Each of the farmers had his cotton, but little interest could be raised in a discussion over it. Lead up to the dairy and poultry business however, and enthusiasm was manifested at once. Mr. M. D. White has the largest dairy herd in the community. He milks 12 cows. When the investigators called at his place he was found breaking an oat stubble field preparatory to planting cow peas. Although very busy with his work, Mr. White unhitched his team and went with the party to a nearby pasture where his cows were grazing in lespedeza, a legume naturally adapted to this locality.

When asked how he got into the dairy business, Mr. White said: "I got into the dairy business somewhat by accident. All the other fellows were going in, so I found an opportunity to trade some mules for cows. This was in the fall of the year. I brought the cows home and then began to wonder what I would do with them. I was short of feed and for a time regretted my venture. We began to make butter and soon had everything in the house filled with it. I then realized that I needed a cream separator. This was purchased and the cream sold on the regular market. These cows paid for their feed that winter and left some profit besides. Now I am selling $50 worth of cream per month above feed

(Continued on page 181)

Value of a Good Cheesemaker

HOARD'S DAIRYMAN:—No one is in a better position to judge of the cheesemaker's value to his factory than the receiver of cheese in the large market. Daily he passes judgment on the product of many factories and unknowingly perhaps forms a mental estimate of the man who makes that product.

The general competence of the cheesemaker continues to be indicated as the cheese are examined, by their appearance and the manner in which the bandages and cloth circles are placed. There is much besides the mechanical process of preparing the cheese for marketing that is the work of the cheesemaker. However, it is safe to conclude that the cheesemaker that uses extreme care in that respect is equally careful in all that he does.

The responsibility of the cheesemaker is heavy as the success of the cheese factory, to a very great degree, hinges on the results which he obtains. Not only is it necessary that he make cheese of such quality and so prepare it that it can be marketed to advantage, but he must also be able to secure a desirable yield. No one will expect him to make a strictly fancy cheese from poor milk, but if he can make the best quality of cheese possible from the milk furnished him and at the same time control its composition so as to not render his factory liable to prosecution under existing laws governing the composition of cheese, the service which he renders his factory is invaluable.

Altogether too often the work of the cheesemaker is unappreciated. The average person is inclined to consider the making of cheese in the light of a mechanical process. He does not realize that modern cheese factory operation is the result of many years of thought and investigation on the part of highly trained scientists. The cheesemaker of today in order to be proficient in his line must not only of had years of practical experience but an intensive theoretical training as well. In addition he must be constantly on the alert to keep abreast of changing methods. Not infrequently an instance comes to light where the competent but comparatively high salaried cheesemaker is discharged through false economy on the part of the cheese factory board. Such instances are nearly always followed by disaster for the factory. The high salaried cheesemaker that produces results always proves the cheapest in the long run.

As an instance that proves the above I will mention my own case. Upon my return from overseas I was given charge of a factory that was $2,700 in debt. Through close application to my work and treating the farmers as I would like to be treated, I was able at annual meeting in February, 1920, to show the debt as being paid, $500 in the treasury, and patronage doubled. At this meeting nothing was said beyond showing me they were pleased, but they failed to give that which we all want—an increase in salary for work well done. A couple of months later I asked for a raise and was refused. Another factory made a good offer; I left. A few months later the board of this factory paid me a visit and offered me more than I was then receiving, reciting a list of grievances about what had happened after my leaving. As the patrons of the factory I was working at then, heard of this they came to me. Well, the result was that I did not return. What followed at the first factory makes me feel good today. More makers should make an attempt to teach their farmers a lesson. Every good man has had experiences of this kind.

The man who has no faith in himself never ought to take charge of a cheese factory, especially where the hardest job he has ahead of him is handling people. Handling an eighty-pound cheese or a ten-gallon can of milk is child's play compared with handling 25 or 50 horny fisted farmers that know what they want and when they want it.

Experts on factory management have always emphasized "tact" as the big essential in the successful operator's make-up, but it has to be backed up by a certain amount of "spunk" if he is going to get best results. I have never believed it necessary for a maker to surrender his manhood to any degree, and I believe the man who lowers himself in his own sight lowers himself in the sight of his patrons. Let him be a man, "fair, square, and liberal," and expect the same respect from his patrons as he expects to show them.

Illinois. C. R. BARKER.

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EDITORIAL COMMENT



WE must measure some things by other things in order to get the right idea of things in our minds.

CATTLEMEN'S CONFERENCE

A Dairy Cattlemen's Conference will be held at the National Dairy Show in Milwaukee, Wednesday, October 1. The subjects for discussion will be sales integrity and standards of sanitation in the shipment of cattle. Each year purchasers of dairy cattle are getting more particular about the health of the animals which they buy, as well as their capabilities. Stock yards and stock cars have not been kept as sanitary as they should and shippers in the future will demand more from the railroads, in regard to sanitary yards and cars, than they have in the past. Men informed upon the importance of good cows free from disease and the necessity of better methods of sanitation in shipment, will participate in the program. We urge all breeders of dairy cattle to attend this meeting for it is desirable that there should be outlined a sound system of selling and shipping cattle.

SILO OWNERS SMILE

Corn is jumping up and up in price as the promises of a good crop become more and more discouraging. In some sections it has been hit by drought, in other sections by poor germination, and in the great corn belt states by incessant rain and cold weather. In fact, crop reports indicate one of the poorest corn years in history.

All of us would like ear corn to sell or to feed during the high price season, but the dairyman with a silo can still smile with satisfaction. His yield may be reduced, but he has a place that will conserve all the feeding value there is in the plant and he has animals that will turn this otherwise waste product into money.

It is said that the packer conserves all but the squeal of the hog. The silo, in like manner, affords an excellent method of preserving the mature corn crop or saving one which for any reason must be harvested before maturity. About 40 per cent of the total feed value of the corn plant is in the stalks and leaves. When only the ears are harvested, the farmer loses nearly half the value of the plant. When drought, frost, or insects attack a field of corn before it is ripe, the entire crop is lost unless the farmer has a silo to preserve it.

Out in Colorado, as in other states, drought and late planting have made much of the corn crop of small value for grain. In Wisconsin, Illinois, and other states cold weather and excessive rains promise a like condition. The immature corn crop will drive home the value of the silo more emphatically than all the arguments that human voice and pen can gather together.

Yes, the dairyman with a silo is sitting pretty when it comes time to harvest an immature corn crop. Eighty per cent of the cow testing association members in Wisconsin own silos, enough of these having two or more silos that if equally divided would supply every member with a silo. Despite the continuous August rains that make grain harvest and haying well nigh impossible and the lack of hot weather to make good ear corn, there is satisfaction in knowing that the cows will have plenty of silage and hay for winter feeding. For these men the silo will build a profit out of a crop that otherwise would be largely wasted.

ABOUT T. B. TESTING

The article, entitled "A Dozen Reasons Against T. B. Testing", published in our August 8th issue, has brought us a number of interesting letters. Most of them give several reasons why this Illinois dairyman is in the wrong, but two or three have commended him for his courage. One communication cites several disappointing experiences in tuberculin testing, but since the writer does not care to have his name appear we will not publish his article but will give one experience related.

He said one young man bought ten cows from federal accredited herds and upon testing them four months afterwards found seven reactors. We may say in answer to this that invariably when such cases have been thoroughly investigated, it has been found something was done that permitted the animals to become infected. We are inclined to believe that if a thorough investigation were made, a nigger in the wood-pile would be found somewhere. These cows, in other words, were either improperly tested or were exposed to tubercular animals. This subscriber then cites the charges some veterinarians have made and which are excessive.

We hold no brief for veterinarians who overcharge for their work. Such men can be found among veterinarians, the same as among other doctors or other professional men. This is no argument against the tuberculin test. It is simply a citation of a veterinarian who overcharged for his services and should not be used in an argument against cleaning up a disease which costs the dairy farmers millions of dollars annually. The thing to do is to get rid of such veterinarians as well as reacting cows.

LOAFING OR FUN CHILDREN

Our state legislatures at their next sessions will be asked to vote for an amendment to the United States constitution giving Congress the power to prohibit the labor of persons under eighteen years of age. We object to this amendment for at least two reasons. First, we do not believe Congress should be granted the power to determine at what age our children have the right to work. Second, we consider it a positive detriment to prevent any young persons from doing work before they are eighteen years of age.

We believe there is some necessity for regulating child labor. It is against our sense of justice to force any youngster into hard work that will prevent proper physical development and an opportunity to secure a good education. We believe, however, that such matters belong to the state and that no law should be enacted which would prevent a boy or girl from working until eighteen years of age. It would be more harmful than beneficial.

The Ohio State Grange is against this amendment and for the following reasons:

"Because it would give to Congress the power to prohibit or regulate essential and health promoting labor on farms of children under eighteen years of age.

"Because it would permit an invasion of the home, the local community, and the state by the national government.

"Because it would entail great and additional expense, ever increasing, entirely unwarranted.

"Because it would set up a force of national enforcement officers, duplicating those already in the states.

"Because it would be another step toward a paternalistic, centralized government, and we have already gone too far in this direction.

"Because involuntary idleness by law would be a step toward the demoralization of society and the destruction of the government our fathers founded."

Work is the key to happiness. Men and women of the world who are engaged in useful activities are the ones who are having the good time and not the loafers or spenders of money. Where can happier boys and girls be found than those engaged in club work of some kind? Some of them right now are preparing their calves, pigs, or chickens for the fairs or are exhibiting them. The greatest fun in club work comes in the years between 10 and 18. Such work not only affords them a good time, but it teaches them to like work and how to work.

Can any man, enriched by years of experience, find anything in his whole life that has brought him more pleasure and genuine satisfaction than the years he spent on the farm doing some regular job assigned to him by his father or mother?

FACTORS INFLUENCE PRICES

Reports from the U. S. Department of Agriculture show that there is a decided reduction of wheat in nearly all countries of the world. The corn crop in this country promises to be much less than last year and the hog crop is also smaller. We are not wise enough to know all the details concerning factors influencing the market prices of various products but we do know that whenever there is a slight overproduction of any farm commodity, the price is materially lowered and that when there is an underproduction the price materially advances. In other words, it takes but a small quantity of a product, one way or the other, to cause prices to rise or fall. The market seems to be a very sensitive institution. It is generally agreed that the average low price of wheat, hogs, and corn for the past few years has been directly attributed to overproduction. Now there is a much smaller production of these products and there is nothing unusual to have the prices of these products advance. Take cotton, for instance. The price advanced very rapidly when the boll weevil claimed about 50% of last year's crop.

Prices of dairy products the past few years have been relatively higher than the prices of most agricultural products and this has stimulated a decided increase in the production of milk. The result is that the prices of dairy products, so far in 1924, have been lower than in 1923. It seems to us it is wise to consider that overproduction is the greatest factor in depressing the prices of farm products rather than to complain and be constantly on the lookout for some combination which manipulates the markets. It has been our opinion —and it still is—that we are operating too much unprofitable land and keeping too many scrub cows. Both scrub acres and scrub cows are producing a sufficient surplus to depress prices and one way, at least, to improve prices is to quit milking unprofitable cows and quit raising crops on poor lands.

CONTRACTS LEGAL

The circuit court of Frederick County, Maryland, in a recent legal decision, upheld the validity of co-operative marketing contracts. The suit was instituted by the Maryland and Virginia Milk Producers' Association against S. I. Linton, one of its members, who had broken his contract, and against W. A. Simpson, wholesale milk dealer in Washington, who encouraged Mr. Linton to sell his milk to him. The decision of the court forces Mr. Linton to deliver his milk to the Maryland and Virginia Milk Producers' Association and has ordered the dealer, Mr. Simpson, to stop buying his milk and requires him to pay all the costs of the suit. In handing down the decision, the court, in part, said:

"The purpose of the association is to secure better results in marketing. In order that such an organization may accomplish the purpose for which it was formed, it must be able to depend with reasonable certainty upon the fulfillment by its members of their mutual obligations. Unless the members fulfill the contract, the association would be in constant danger of disintegration and failure. Binding contracts are clearly essential to its existence and success."

This is not the first time courts have been called upon to pass upon the legality of contracts made between a member and his association. In building a co-operative marketing company, we look upon the contract as being essential for it is necessary to know how many members can be depended upon to support it. If there are no contracts, but simply a verbal agreement, the management is not in position to guarantee a definite supply of milk to wholesale milk dealers. No milk producer should sign a contract unless he has made up his mind to fulfill it, we care not whether the contract be good or bad. He is under obligation to do the things the contract requires. No co-operative marketing association can hope to succeed unless its members will stay by it in times of adversity as well as in times of success.

Chloride of Lime

How is chloride of lime used in making the solution for sterilizing milking machines?
Mississippi. D. U.

Dissolve the contents of a 12-ounce can of chloride of lime in a gallon of water. Strain this solution into a crock or glass jar, discarding the sediment. Cover and keep in a cool, dark place. This is known as the stock solution and it will keep a long time under these conditions.

Be sure that the chloride of lime is in a clean and fresh looking container. If the contents look old and caked, the material is worthless. In preparing the solution, first add just enough water to the chloride of lime to make a paste. Stir well and add the balance of the gallon of water.

To make the solution in which the milking machine utensils are soaked, use a quart of the stock solution to every 20 gallons of salt water. Add 1 pint weekly of the stock solution in winter and 2 pints weekly in summer. Make up an entirely new stock solution once every eight or ten weeks, or whenever the old solution ceases to be clean and sweet.

There are several sterilizing solutions on the market that are excellent for this purpose and have the advantage of being always of standard quality.

Seeding Alfalfa in Corn

I tried a small patch of alfalfa by sowing the first of last August. The stand is not satisfactory and wish to try it on a larger scale. Recently while out in the country I saw a fine field of alfalfa and was told that last season (the sixth year) he got 22 large loads from the five-acre field. I asked him the best way to start it, and he said he had the best luck by plowing his corn the last time with a small shovel single cultivator, which leveled the ground nicely and then sowed his alfalfa in the corn. I have never heard of alfalfa started this way but have often been told that it was a wonderful success in getting a stand of red and alsike clover. What do you think of this method?
Wooster, Ohio. A. C. K.

Some time ago we received from one of our Wisconsin readers the following information concerning his method of seeding alfalfa in corn:

"We have seeded alfalfa for the third time in our corn. We do not recommend this as the best method, but we cannot seed in grain nor can we afford to miss a crop. The corn should be well worked early and kept clean. Cultivate the last time with a harrow-tooth cultivator and seed with a wheelbarrow seeder. Do not stir the ground after sowing or some seed will be covered too deep. The corn is cut off for silage and the corn stubbs are harrowed down when the ground is frozen."

This gives the usual system of seeding alfalfa in corn and some men have reported very excellent results. Unless a special form of drill is used, there may be some difficulty in properly distributing seed, especially if the last cultivation comes when the corn has reached a fairly good growth. If this corn is to be cut and shocked, care must be exercised to get the corn shocks off the field with very little delay, otherwise they will kill out the growing alfalfa. The better system is to seed alfalfa in corn which is to be used for silage.

Kill Morning Glories in Corn Field

I was interested in your article on weeds as I have a field of corn badly infested with morning glories. Would the carbon bisulphide treatment or sodium arsenate spray hurt the corn now?
Newport, N. Y. J. M.

It would be unwise to use carbon bisulphide for the destruction of morning glories in a corn field. The corn and morning glory roots are more or less intermeshed. The destruction of the roots of one would have the same effect on the other. The use of this destroying agent is practical on a field after the crop has been removed or where no crop is being produced.

Success in the destruction of weeds by the use of chemical sprays depends upon getting the spraying solution into direct contact with practically all portions of the plants to which it is being applied.

The most effective method is to apply the solution with a pressure sprayer equipped with the right type of nozzle. The nozzle must be so constructed as to deliver a fine misty spray which will settle over all parts of the plants like a dew or fog. Obviously it would be impossible to so spray morning glories in a corn field without doing serious injury to the corn. The corn is more resistant to the action of the sodium arsenate, sodium arsenite, and other chemical sprays than the morning glory, due to the finer texture and smoother surface of the leaves but would quickly show ill effects of the spraying.

In addition it must be remembered that sodium arsenate is a deadly poison. It destroys but is incorporated with the plant tissues upon which it is sprayed. Corn sprayed with it could not be used for live stock feeding, hence the use of this spray in corn or other crop fields would be extremely dangerous.

If corn and morning glories are well along in their growth the best that can be done this season is to cultivate as intensively as possible. If available a knife shovel cultivator is a good tool to cut off the weed tops preventing leaf growth and weakening the roots. If the labor is available, hand hoeing around the hills will keep them down this year. What shall be done next year is too long a story for this article.
Wis. College of Agriculture. A. L. STONE.

Variation in Test

HOARD'S DAIRYMAN:—In answer to the inquiry of G. W. H. in the August 8 issue on "Variation of Tests", I might relate some personal experiences I have gone through while on cow testing association and Advanced Registry work.

Many milk producers are still unable to understand why tests should vary with the "same feed, same cows, same milkers, same conditions throughout".

Specialists who have given years of their time in an attempt to solve these problems, agree that the cow truly has strange ways and the more effort put forth to ferret out these facts, the deeper and more antagonizing the subject becomes. As Professor Haecker puts it, "The cow does, she doesn't, then she does neither."

First, it must be recognized that the cow is performing a work that cannot be duplicated by the genius of man. Stop a moment and consider the feed fed the cow; then look at the finished product, manufactured in from 6 to 12 hours into a liquid composed of water, sugar, albumin, casein, fat, all in their proper proportions ready to be consumed for body maintenance. It must be remembered this change does not take place by some mechanical device but is stimulated by a nervous system; unless all conditions are favorable, a reaction will occur and the fat is first to be affected.

Sharp changes of weather, wind, lack of fresh air, uncomfortable quarters, the cow not loving her milkers, fever, harsh talk, all have their influence on fat production.

Any farmer knows it to be impossible for him or his horses to do the same amount of work each day where weather conditions fluctuate or if he does not feel just right physically. The same condition is true of a cow. It is her work to produce milk. The more milk she produces the harder she works and the greater the fluctuation will be. It is estimated that as much energy is required to produce 44 lbs. of milk as is required to plow an acre of loam soil, yet we think nothing of a 44-lb. producer. It seems to be a fact that it is easier for a cow to produce milk in the Northwest than it is in the South, so the weather conditions play a very important part in milk production.

The following 7-day official record was made near Columbus, Ohio, on a cow soon after freshening:

Time finished milking	Lbs. milk	% Fat	Lbs. fat
12:26 p. m.	16.9	6.55	1.1069
6:50	17.3	5.65	.9774
12:25 a. m.	15.8	6.55	1.0349
6:35	15.7	5.1	.8007
12:37 p. m.	16.4	7.05	1.1562
6:35	14.6	5.8	.8468
12:32 a. m.	15.8	6.3	.9954
6:30	13.4	5.15	.6901
12:30 p. m.	16.4	6.0	.9840
6:30	16.0	5.3	.8480
12:32 a. m.	14.8	4.6	.6808
6:32	15.1	4.9	.7791
12:41 p. m.	17.5	7.3	1.2775
6:35	15.4	5.8	.8932
12:30 a. m.	14.7	5.3	.7791
6:25	15.0	4.35	.6525
12:40 p. m.	17.7	4.6	.8142
6:43	18.4	5.3	.9752
12:37 a. m.	18.4	5.8	1.0672
6:27	15.1	4.4	.6644
12:37 p. m.	17.9	5.9	1.0561
6:50	17.9	5.1	.9121
12:35 a. m.	17.5	5.95	1.0412
6:25	16.0	4.8	.7680
12:26 p. m.	16.9	4.6	.7774
6:34	19.8	5.0	.9900
12:39 a. m.	18.0	5.65	1.0170
6:32	15.0	3.5	.5250
Total	460.1	5.45	25.1139

Notice the time of milking, the sharp fluctuation in tests in the 6-hour intervals, the greatest being 24 points. It also shows that where the percentage of fat raises that production also raised in the case of a few milkings, so it cannot be said that, as a rule, where production decreases, fat increases. Such a rule does not hold good, generally speaking.

I wish also to call attention to the last milking where the percentage of fat dropped far below the average, yet the supply of milk was about the same comparing it with the corresponding milkings. This drop was traced to a neighbor, wearing a red sweater, thoughtlessly entering the stable while the cow was being milked. She immediately stopped her eating and became somewhat nervous. The result was shown, not in pounds, but in fat percentage. She was tested the next two milkings, which were back to normal. The question is, what became of the fat she lost in that one milking? Nobody knows any more than can be explained why a black cow will eat green grass, give white milk, and make yellow butter.

I do not agree with the statement made by a tester in one of your issues, that 90 per cent of the fluctuation in fat tests is the fault of the farmer, but would rather say that 90 per cent of test variations are unavoidable as far as human power is concerned.

At present I am employed as a tester for a milk producers' milk marketing association and unless one is personally in that field the tester's problems cannot be appreciated.

There are still a few farmers who are more or less careless in taking milk from cans for home consumption. Where the bulk is sold to milk plants, usually the housewife waits until the hauler is about due to get her supply, when the milk is cool and the cream raised.

I have, in my possession, two small dippers taken from patrons' milk upon arrival at the milk plant. In most cases the good housewife does not realize what mischief these small instruments will do even though she may stir the milk as best she can; it is not sufficient to even disturb the SKIM in the bottom of the can. The milk producer has a right to as much milk as he wishes for home use, but the law of economics prohibits keeping it at home and selling it at the same time. During the period in which one of these dippers was found the test dropped nearly one per cent and the patron wondered why—so would we, had we not had the evidence.

Another peculiar thing happened. A producer wished to know if his milk was tested properly. He skimmed part of his cream out and sold it elsewhere. For that period the composite test naturally dropped and was observed by the dealer. Not knowing the cause, a fresh sample was taken from milk and was found to test very closely with the previous tests. It was given the producer, the composite sample being discarded entirely. Hence the farmer said it makes no difference to skim.

It is not always the fault of the producer. Some cases have been known where the tester became careless and did not test at all. He just referred to previous tests and perhaps varied it a point or two. He became too bold at this, was found out, and fired. Also a hauler was known to have a ten-gallon can of milk for sale and never owned a cow at the time. All this did not happen in one vicinity.

Most farmers are very fair and are willing to be shown and then will be satisfied. Several cases I have had under my supervision, the producer questioned the sampling. I loaned each of these men a McKay milk sampler and instructed them how to use them properly. For several weeks a check was made, unknown to the dealer and in one case unknown to me the sample was split, part given to me and part sent to the the state university. The results were the same all through. The farmer had a more friendly feeling toward those who were entrusted to handle his product.

One producer kept his evening and morning composite in a separate container to note the fluctuation if any. The evening milk showed 4.5 per cent and the morning 4.0 per cent. The composite held by the dealer was 4.25 per cent which is a closer check than could ordinarily be expected.

Those who are in cow testing association work cannot expect their one day a month test to check with a sample taken every day; in the course of a year or two it may not vary much, but that usually is not considered. I find more mistakes are made through testing a composite than from the sampling, due to the fact that the sample must be heated to the proper temperature to dissolve the cream but not as warm as to separate the fat from the solids.
Ohio. C. E. SCHROCK.

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Coming Events

Sept. 14-20—Eastern States Exposition at Springfield, Mass.

Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.

Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.

Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition. Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

The 300-Pound Honor Roll

You need not visit long with the dominant man in any manufacturing or merchandising company before you discover that "volume" stands in his mind at the head of the list of the factors on which the profit of his business depends.

I often wonder if the cow owner appreciates the part which "volume" from each cow plays in his profits. It takes over 2,000 pounds of digestible nutrients or over 2,000 units of net energy to maintain an ordinary cow in health for a year whether she produces any milk or a calf or neither. Whatever this feed costs, it must first be paid before the cow can earn a profit over and above her keep.

The National Dairy Association believes the most important factor in increasing the profitableness of the milk cow is to measure each cow's yearly production, and the Cow Test Association is the cheapest, surest way to do it. Second, it believes that every Cow Test Association member who has developed a herd averaging 300 pounds of fat per cow per year has taken the biggest step toward increased prosperity. It believes this so firmly that it has invited the State Supervisors of Cow Test Association records in each state to send in the names of the men in their respective states, whose herds of five or more cows have averaged in Cow Test Associations 300 pounds of fat per cow per year or over. These men are receiving a personal invitation to be present at the National Dairy Exposition at 1:30 o'clock, Wednesday, October 1, 1924, at the Cattlemen's Conference, when, as a recognition of their success and as encouragement to them and others to strive for a profitable herd average, each will be presented with a diploma. This diploma may or may not mean much in itself, but the national recognition of successful effort and the attainment of a herd production which is practically an assurance of profit does mean much to the herd owners of America.

It is true some herds of ten to twenty cows are averaging over 400 pounds per cow per year and several seven or eight cow herds have averaged over 500 pounds each per cow; but the prosperity of the dairy industry does not depend on these exceptional herds. It depends on the great rank and file of moderate sized herds, each producing a moderate amount of fat per cow per year. A 300 pound average is a good mark for every herd owner to shoot at whether he has five cows or many. These cows bred to pure-bred sires are the foundation of prosperity year in and year out.

The National Dairy Association is happy to give this recognition to the herd owner, and indirectly to the cow tester, the extension worker of the cattle clubs, the states and the government. It is their tireless work that is bearing fruit.

H. E. VAN NORMAN.
Pres. National Dairy Association.

Buckeye Jersey Bull Sires Four Silver Medal Daughters

About four years ago Mr. Ray W. Elliott of Ohio decided that although he had his hands full working a 160-acre farm, he could not afford to be without good pure-bred dairy cattle. So it happened that he began to buy in a few registered Jerseys as the opportunity offered until in time six cows and one bull and a few heifers in calf were purchased. This foundation stock cost $2,650, but Mr. Elliott has already received $2,875 for breeding stock which he has sold, and still has twenty-five females, a herd sire, and two young bulls in his herd.

These Jerseys were the first in Muskingum County and the surplus stock has been sold to other farmers in that county.

Mr. Elliott had not been breeding pure-breds very long before he realized the value of Register of Merit testing, so a start was made with this work. He has found that with ordinary care and on two milkings a day, his cattle will put up Register of Merit tests that win medal awards.

In this connection we are able to announce that the Jersey bull, Lucette's Majesty, Mr. Elliott's herd sire, has just qualified for a silver medal on the production records of four of his daughters out of separate dams. Only six of Majesty's daughters have been tested up to the present, and four of these daughters have won silver medals on their first lactation.

The four daughters of Lucette's Majesty that have won silver medals made the following showing while on test:

Lucette's Majesty's Bessie produced 526.83 pounds fat in 365 days, starting test at two years, two months of age. Milk averaged 6.06 per cent fat and calf was carried for 233 days of the test. This record was made on two milkings a day.

The second daughter of Lucette's Majesty to win a silver medal was Majesty's Bonnie Lass, which produced 516.51 pounds fat in 365 days. Lass was two years, one month of age when she was put on test and she carried calf for 177 days of the year. She made her record on two milkings a day.

The third daughter to qualify was Majesty's Marry A. This youngster commenced test at two years, two months of age and in 305 days produced 494.53 pounds fat, carrying calf for 208 days of the test. She is owned by F. C. Hatch of Ohio.

The last daughter to become a silver medal cow is Lucette's Majesty's Lass. Starting test at one year, eleven months of age she produced 421.74 pounds fat in 305 days, carrying calf 165 days of the test. Lass is still owned by Mr. Elliott.

Mr. Elliott finds it economical to mix feed himself. He has been using a ration made up of equal parts, by weight, of corn, oats, oil meal, cotton seed, bran, and gluten, but is ready to admit that feeding is an art about which one can learn a great deal.

The cows on test are out at pasture all summer with the herd, and receive no special care. Milking is done as regularly as possible, but this is hard to arrange at times for with 160 acres and no hired help, except at harvest, there seems to be no end of work on hand.—The American Jersey Cattle Club.



FINANCIAL KING'S INTEREST AND HER 20TH CALF

Word has been received that Financial King's interest, the pure-bred Jersey that holds the world's record for reproduction, all breeds, died at the Greystone Jersey Farm, Pennsylvania, at the age of 24 years and 7 months.

This marks the close of one of the most notable careers that is to be found in live stock history, for during her lifetime Financial King's Interest was the mother of twenty heifer calves and one bull calf. Unfortunately she was not tested until she was in her nineteenth year, but even at that great age she produced, with calf, 401.09 pounds of butterfat, and followed this with another official test in her twentieth year, when she again produced over 400 pounds of fat.

Missouri Club Winners

HOARD'S DAIRYMAN:—The Jersey calf club team from Dekalb County, Missouri, won the state championship in the judging and demonstration



MISSOURI DAIRY TEAM

Left to right:—L. N. Thornton, L. Owens, H. Donovan, J. Flint (Local Leader), and County Agent V. B. Sheldon.

contests at the Missouri State Fair. This gives them a free trip to the National Dairy Show at Milwaukee, where they will compete with similar teams from other states. This trip is being provided by the St. Louis Chamber of Commerce, the National Dairy Association, and the Blue Valley Creamery Company.

Approximately fifty dairy clubs are now operating in the state. Every county with one or more clubs was eligible to enter the team from its champion club in the State Fair contests. It is planned to award this trip each year so that every club has a real prize to work for.

The boys who will make the trip are Louin Thornton, Lawrence Owens, and Harry Donovan, with Joe Flint, local leader, and V. B. Sheldon, county agent. All are from Marysville, Mo. They will be accompanied by M. J. Regan, dairy specialist for the Missouri College of Agriculture. They plan to drive through to Milwaukee, visiting the Agricultural Colleges at Ames, Iowa, and Madison, Wisconsin, on the way as well as the Waterloo Dairy Cattle Congress and many of the leading dairy herds of the country.

Missouri. E. M. HARMON.

Judging Dates

Eastern States Exposition

Sept. 16—Jerseys. Judge, Profesor W. W. Yapp, Illinois.

Sept. 17—Ayrshires. Judge, Lester Ortiz, New Jersey.

Guernseys—Judge, John Clark, Massachusetts.

Sept. 18—Holsteins. Judge, W. S. Moscrip, Minnesota.

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, AUG. 28—The discussion of a proper standard for ice cream occupied most of the time of the American Dairy Federation meeting as well as of the Wednesday session of the Joint Committee on Standards and Definitions. Although there was no decision, the arguments of the representatives of the ice cream association were so vigorously opposed to the proposed twelve per cent fat standard that it was the concensus of opinion that this had been defeated. On the other hand, it was evident that members of the committee were far from convinced that the eight per cent fat standard which the ice cream manufacturers asked for was satisfactory.

Several questions were raised with reference to the tentative standard, the chief being the amount of fat required. The second question was relative to the kind of sweetening agent which would be permitted. The present practice is to use dextrose or corn sugar in some instances, and especially as a check on the price of sucrose or cane and beet sugar.

A third question raised is as to the use of artificial coloring matter. It is permitted at present by the laws of some of the states, but the proposed federal standard seeks to prevent the use of artificial coloring unless it is so declared on the label. The ice cream makers protest vigorously against this limitation, saying that the use of a limited amount of color in ice cream, as long as the fat content is regulated and provided for, could not be construed as intended to cover up fat deficiency and therefore was not fraudulent in any way. Its use in ice cream, they asserted, was exactly parallel to its use in butter.

A fourth question was relative to a weight limit. It was stated that with the continuous mix systems it was impossible to control weight, especially in the frozen product removed from the machine at the end of the operation.

M. D. Munn, speaking at the hearing, raised the question of sufficient milk solids other than fat. He said that under the experience of the ice cream makers and their research men, fully verified by the state and government scientists, the per cent of total milk solids was limited by the amount of milk sugar which could be held in solution, thus obviating difficulty with "sandy" ice cream. Therefore the milk solids, not fat, were limited by the amount of fat permitted to be used. That is, if total milk solids could not exceed 20 per cent and 12 per cent must be fat, then other milk solids must be limited to eight per cent. This percentage of milk solids, not fat, was not enough, in Mr. Munn's opinion, to make ice cream as good a food as it ought to be.

Chairman Skinner of the Joint Committee made a statement indicating that for the moment he was more concerned in securing a standard and definition which would make the name "ice cream" mean just what the public expected ice cream to be, than in either the dietetic or economic sides of the question. Some parts of the dairy industry, he said, wanted as high a butterfat content as possible, because this made a market for more butterfat. Some other parts might want a lower butterfat, because this made ice cream cheaper to make. Some other interests wanted to use dextrose, because it made a market for dextrose or permitted a cheaper sweetener. Some others wanted more milk solids used because it made a more healthful cream.

The Joint Committee would not try to choose between these, but wanted to determine just what ice cream really is and what the average person expected to get when ordering ice cream. On this basis it would fix the standard. All the other kinds, ranging from a water ice, to a 25 per cent fat mixture, or a frozen pudding made up of eggs and corn starch. could be made, the only question being to provide a system of names which tells the purchaser just what it is he is buying.

It was thought likely at the close of the hearing that a decision to fix the butterfat standard at ten per cent, was most likely.

⚜

Following the hearing with the Joint Committee, it was decided by the Ice Cream Association officers to send a delegation to the Chattanooga Convention of the Dairy, Food, and Drug Officials to present their case to the entire body. M. D. Munn also thought that it would be best if he attended to present the case for milk solids as a part of the educational work of the National Dairy Council. Dr. C. W. Larson will also attend the Chattanooga session as the representative of the Bureau of Dairying.

⚜

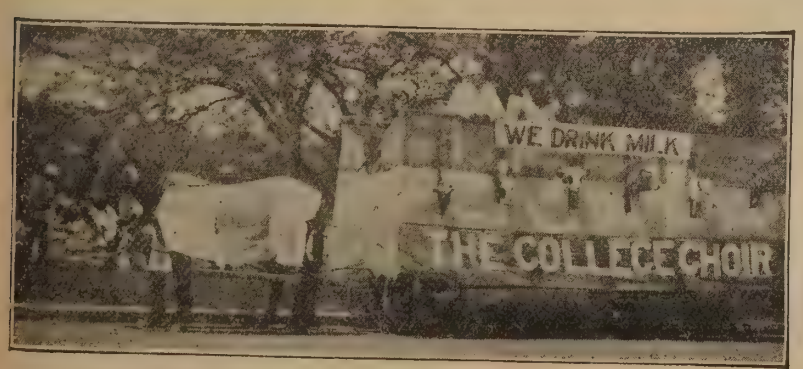
The American Dairy Federation at its executive committee meeting here Tuesday decided to call a general meeting of the Federation at Milwaukee, October 1. The sessions will be held at the Hotel Wisconsin, October 1, at 4 p. m.

⚜

A special committee with Charles L. Hill of Rosendale, Wis., as chairman, has been appointed by the American Dairy Federation, to report on the methods of estimating indemnities for cattle killed in foot-and-mouth epidemics. This committee will report at the Milwaukee meeting.

⚜

A. M. Loomis of the National Dairy Union and the American Dairy Federation office is on a vacation trip at his old home in Western New York, to be gone ten days or two weeks.



DAIRY DEPARTMENT FLOAT IN FAIR PARADE AT KANSAS STATE AGRICULTURAL COLLEGE

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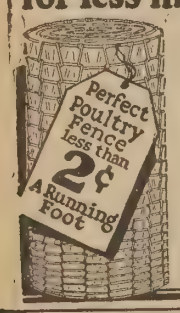
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Keep a record of each cow's yield, in milk and butterfat. Which cows are profitable?

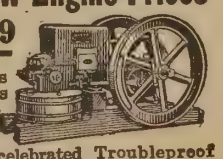
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When writing advertisers please mention Hoard's Dairyman.

Why Illinois Dairyman Should Believe in T. B. Test

(Continued from page 172)

treated in an honest, fair, and businesslike manner, provided you do not plug your cows before the test or induce a crooked veterinarian with a piece of change to pass your cows whether they are reactors or not.

6. The authorities which advised you in regard to the fencing of your accredited herd surely must have been authorities on some "old maids' sewing society" instead of officers in tuberculosis eradication work. There are no such regulations.

7. It is true there are many farmers who have suffered losses as the result of tuberculosis eradication work. It was their misfortune and I am sorry for them. It was not on account of the poor judgment shown in submitting their herds to the work. They should have used their judgment when they started their herds and made the start with clean herds and kept them clean. It has been done many times and can be done again, with but comparatively small expense. And it is my opinion that the work will be carried on in a much more satisfactory manner than heretofore, after such herds as the Illinois Dairyman's are out of the way in accordance with the area plan of testing.

8. Tubercle bacilli are killed in milk when properly pasteurized.

9. The limit of appraisement in Ohio for reactors in accordance with area testing is $120 for registered cattle and $60 for grades. The federal government pays one-third, the state one-third, and the owner stands one-third of the loss.

10. I can not answer this question because I have no statistics or otherwise in regard to the tracing of human infection to the bovine type of tuberculosis in the rural districts of Illinois.

11. It appears to me that the propaganda, as you call it, to aid tuberculosis eradication work is quite popular among the largest per cent of the best dairymen in this country of ours.

12. Raw milk from a cow affected with tuberculosis is not fit for food. If that particular cow is slaughtered and her carcass passes government meat inspection, it is considered to be fit for food for the following reasons: 1. Autopsy has been held on this animal and the tuberculosis lesions and their extent and condition have been ascertained by an expert meat inspector, and according to his rules is discarded, if considered dangerous, or passed if not considered dangerous. 2. The meat is heated when it goes through the process of cooking and the tuberculosis germs are destroyed, if any are present. If the milk is used we have no means of knowing the extent or virulence of the lesions in that cow's body. Cows on which autopsy has been held do not give milk. Therefore, if that cow happens to be one which is throwing off tubercle bacilli with her secretions the live germs are apt to reach the stomachs of many innocent babes who depend so largely upon milk from "Old Bos" to prepare them for a future generation.

It does not seem practical in my mind to submit a sample of each cow's milk to a bacteria examination to learn the quality of her product, especially that of a reactor which is liable, at any time, to put off the deadly germs with her secretions.

Now, Mr. Illinois Dairyman, tell me if, in your mind, the tuberculin test is not reliable, why is it not a mistake in a pure-bred herd, as well as in any other kind of a herd? Perhaps I can answer for you. Is it because you haven't got one?

Connecticut College Ayrshire Produces Six Tons of Milk

Mauchlin Snowdrop 2d, an Ayrshire, bred and developed at the Agricultural College at Storrs, Connecticut, has produced in eleven and one-third calendar years 101,729 lbs. milk, 4,321.58 lbs. fat, with fat tests taken every ten-day period. During this time she completed eight consecutive yearly Advanced Registry records, her official production being 95,381 lbs. milk, 3,993.68 lbs. fat. Her latest official record is 13,042 lbs. milk, 516.20 lbs. butterfat, completed at over 13 years of age. This is the largest production made by a cow in Connecticut at this age.

Her lifetime production of milk sold for $3,518.22, netting $1,557.76 above feed cost. In every year she has returned a substantial profit, even when milk brought its lowest price, $2.34 per 100 lbs. in 1913 and 1914, her product returned $176.20 above feed cost. She made her best record in 1918, giving 14,680 lbs. milk. Her feed record shows that she received a daily average of but 15 lbs. grain that year. In her thirteenth year her profit amounted to $249.58.

In addition to her heavy and consistent production Mauchlin Snowdrop 2d has increased the college herd with nine calves. She has many granddaughters and one great granddaughter. One of her sons at present is heading a dairy in Porto Rico.

Two daughters of Mauchlin Snowdrop 2d which have completed records thus far, show every indication that her offspring have inherited her producing ability. Mauchlin Whitehill True, in three years for the Advanced Registry, has a total yield of 26,753 lbs. of milk, testing 4.6 per cent, which sold for $1,070.17, her feed cost during this time amounting to $516.28, leaving a net



AYRSHIRE COW, MAUCHLIN SNOWDROP 2D

balance of $553.90. The other daughter, Mauchlin Snowdrop of Storrs, in two years has yielded 21,975 lbs. milk at a feed cost of $404.34, and sold for $875.71, returning a profit of $471.37.—Ayrshire Breeders' Association, Vermont.

"Heaven," says the old fashioned saw, "is an income of a dollar and an outlay of ninety cents, while hell is an income of a dollar and an outgo of a dollar ten." The creation of even a small surplus is the simplest thing in the world to plan and the hardest thing in the world for most people to carry out.

Dunn County, Wisconsin, has notified National Dairy Show officials that it will send a carload of C. T. A. cows and a carload of club calves. The county raised $500 to finance the project.

An Arkansas Dairy Community

(Continued from page 174)

costs." Incidentally, Mr. White gave the information that he diversifies in other ways. From 3 acres of strawberries this year he sold over $1,300 worth and made a profit of over $700.

Mr. W. K. Beard was introduced as one farmer who was enabled to live without dairying. In spite of the boll weevil he had been making money by his skillful farming, but he entered into the diversified program more to give his boys facilities for practice in the care and management of live stock. Mr. Beard is a progressive, public spirited citizen, and last year when the school funds were short Mr. Beard turned over 10 acres of cotton land to Mr. Arnold, the Smith-Hughes teacher, who farmed it with donated labor and gave the proceeds to the school. Alton Beard, his son, 16 years of age, has the distinction of having the most diversified farm practice program in the community. Under the supervision of the agriculture instructor he has poultry, swine, cotton, and sorghum projects.

One of the remarkable things noted in this survey was the ability of the farmers to talk in terms of economics, cost accounting, labor incomes, net profits, assets, liabilities, and overhead were used repeatedly, thus showing that these farmers have made a study of the farm business and know at all times what they are doing.

The Smith-Hughes agricultural work has been operating in this locality four years and the objectives, which are Better Farm Practice, Better Farm Business, and Better Farm Living, are well on the way to a full realization.

Friendly Talks for Farm Folks

Shem Luscomb tells a story about a young drummer who became discouraged early in the game because he couldn't land enough orders from the storekeepers to make any sort of a profitable salary. He would go from store to store, and in a pessimistic way would say, "I don't suppose there is anything in my line you need today, is there?" Of course, the anti-suggestion always worked and there never was. Finally the youthful knight of the road wrote in to his boss: "I may as well quit making this territory. There's no opportunity here. I can't get any orders as nine men are already ahead of me." Promptly the manager of his firm wired back, "Get a move on out there, you lazy loafer, there's twelve good men behind you."

⚜

Art Russell keeps such a bevy of cats to keep away the mice from the grain that it fairly rains felines when you go near his barns. Art started in being real kind and good to his cats, feeding them liberally of new milk so that they would like his place and feel homelike and contented there. He succeeded so well that the wise animals shortly made up their minds that it would be foolish to rustle after rats and mice when other providing was made so liberally on schedule. So the cats quit chasing rodents and incidentally to increase and multiply, and as Art tells it, in a month or so it required all the milk from one of his prize pail-fillers to feed the pesky bunch. Since when Art let down with a painful suddenness on the liquid provisions, and the cats began to dig around for their lawful prey as the Lord intended. You can go into the Russell barns now and not find a thing running around on four legs excepting cats. No one, not even a pussy, is going to hunt for a living if it comes to one on a platter.

⚜

Old Silas Horner is considered a canny soul around these parts. He and Deacon Hopkins were dickering one day over a cow Silas was thinking of purchasing from the Deacon. "That old caow of mine has her good pin't's, Sile, she has her good pin'ts," the Deacon asserted earnestly. "Wa'al," drawled Silas, "That may all be; but I calklate you got to agree, Deacon, that a caow's to be jedged by her quarts 'stead o' her pints." But in the end Silas bought the "caow".

⚜

Whoever it was who invented that expression, "The fat of the land", undoubtedly referred to butterfat. Only a cow could take green grasses and weeds and flowers and grains and combine them into sufficient fats and proteins and the like to feed the world.

⚜

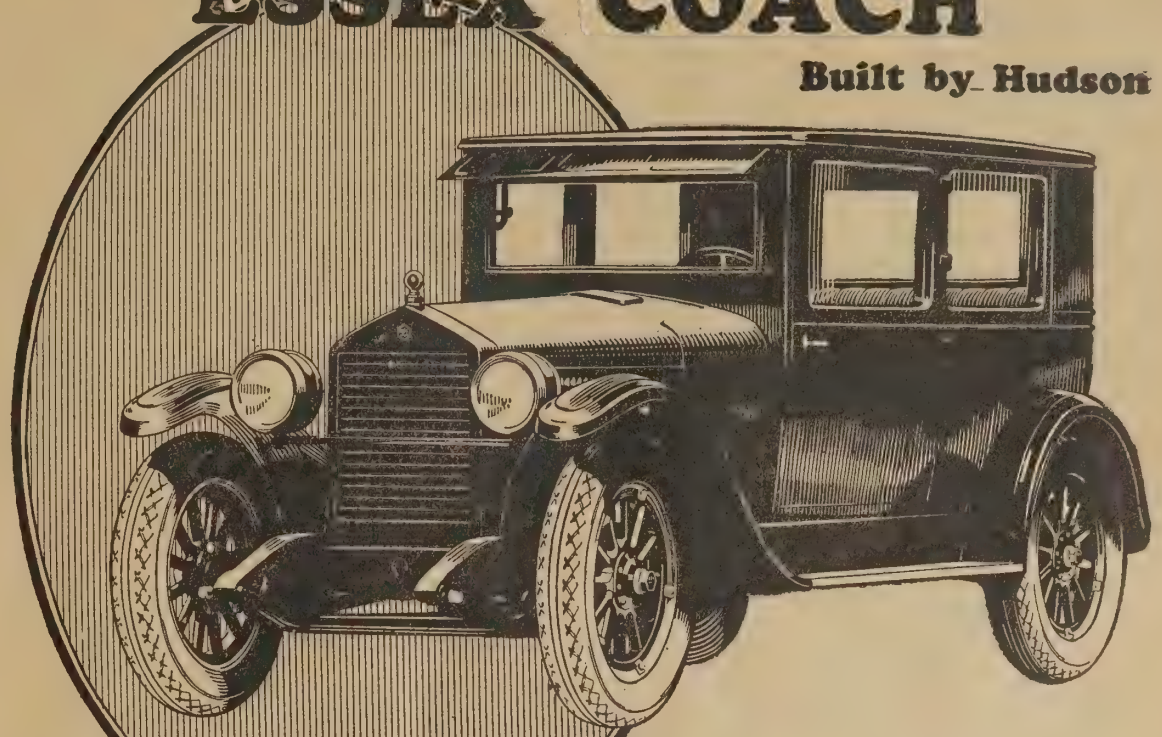
Somebody has said that the easiest thing a car driver can run into is debt. Most pedestrians make a frantic, if eleventh-hour, effort to avoid the wild steering of the autoist, but old Man Debt just seems to invite a knock-down forty times a day. You've probably noticed yourself that he is a daily casualty.

⚜

As we observe our remaining forests being merrily cut down to the tune of the ravenous sawmill, we wish the Lord had provided trees with a bark which really could in a most threatening manner.

New York. HELEN S. K. WILLCOX.

At Open Car Cost
ESSEX COACH
Built by Hudson



Genuine Balloon Tires
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Naturally when balloon tires had established their superiority Hudson and Essex would adopt them. They are now standard equipment. They add an even greater measure of riding ease, steadiness and good looks to the notable values of the Coach.

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Everyone wants closed car comforts. They will no longer accept half-utility when all-year usefulness and comforts cost no more in the Coach.

Consider how the growing trend to closed cars affects resale values. The diminishing demand for open cars means far faster depreciation in that type. As the wanted type, the Coach maintains exceptionally high resale value.

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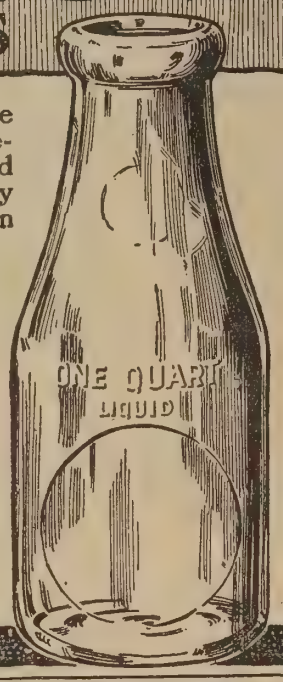
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Says E-B Spreaders Are in the Lead

W. J. Willis of Hoopestown, Illinois, is another enthusiastic user of E-B Manure Spreaders. He writes under date of January 15, 1923:

"For five years I have used an E-B No. 1 Spreader and have been well satisfied with the machine in every respect. I have had no cost to date for repairs and of all the makes I have used I think the E-B is Superior to all. This section is well supplied with spreaders and E-B's are in the lead."

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THE E-B LINE

Keep Tab on Your Cows

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.

WAYSIDE MUSINGS

THE GARDEN OF HAPPINESS

JOSEPH S. MORRIS, WISCONSIN

THE great quest of humanity has been for happiness. Consciously or unconsciously the man in the city and the man on the farm have had as the goal of their endeavors the finding of the garden of happiness.

If the truth were fully told most of us would have to admit that we had failed to find happiness in the sense in which the heart of each one of us yearns for it. The trouble may be that we have always been so busy that we have not had time to define happiness. Certainly we cannot expect to find anything unless we really know what it is we are looking for.

The Master Teacher of nearly two thousand years of time has said that happiness is to be found by those who are poor in spirit, by those who mourn, by those who are meek, by those who hunger for better things, by those who are merciful, by those who are pure in heart, by those who are peacefully inclined, by those who have suffered in good causes.

It is just here that we come to the very heart of the matter. Its underlying meaning is that we carry with us an abiding confidence in the Eternal Goodness which is at the center of all the life of the world. It does not mean that we shall find happiness by refusing to face all the facts of life but rather the opposite. I am thinking of a farmer I knew in Pennsylvania. Passing the kitchen door early in the morning I saw him at his devotions, kneeling on the bare kitchen floor. He seemed to gain strength from the book of his faith and from his humble communion with the Eternal. His problems and burdens were the problems and burdens of other men of his vocation. He seemed to gain self-mastery, poise, and happiness from his way of life. He was well liked among men. He had great patience with and sympathy for all his fellow men.

It is true that every man has his burdens and his problems. Each failure as well as each success serves to make him stronger. Have we been turning "outward" in our quest for happiness? Seeking it in things and in thrills? Suppose we were to reverse the process and turn "inward", within ourselves. The happy life is the life that has enriched itself by putting into the soul those things that produced a crop of happiness.

A man needs friendships, and neighbors, rest, and work, social life and quiet, religion, books, exchange of ideas, and a little fishing trip now and again to help fertilize the soil of his life. By and by he comes to realize that he has found the garden of happiness because he has planted it in his own soul. Some of the most inspiring and helpful men I have known have been farmers who had not only rich farm lands, but rich souls as well. A whole countryside has been blest and enriched by them.

The most completely and perfectly happy man of the ages is the man of the greatest simplicity of life. Simplicity is not poverty. It is often the greatest wealth.

If we cannot find a measure of happiness right where we are, in the very things we may now be discontented with, it is doubtful if we shall ever find it anywhere. The garden of happiness must be planted within you. If it is not there you will not find it anywhere though you have much wealth and travel to the ends of the earth.

Handling Immature Corn

Foreseeing that in all probability there will be much soft or immature corn grown in Minnesota this year, Professor Andrew Boss, vice-director of the Minnesota Experiment Station, makes several suggestions as to how such corn as may be harvested can be saved and fed to the best advantage.

"Corn is short and the yield will be light in most cases", says Professor Boss. "There has been frost damage already in low spots and in the northern part of the state. The chances are that many farmers will be obliged to face the problem of handling a soft crop."

Professor Boss' suggestions as to what can be done in the emergency are:

1.—Husk and crib all mature corn for it will be in strong demand before the next crop matures.

2.—Put as much as possible of the soft corn in the silo. Those who do not have silos can preserve corn satisfactorily by the shock method.

3.—Cut as soon as frost is indicated and shock well in large tightly bound shocks. Re-shocking is necessary as the corn cures so as to keep the shocks erect and weather proof. Feed as dry fodder or use to refill the silos when empty from the first filling. If used for silage after drying it may be necessary to add some water in filling.

4.—Turn fattening cattle, hogs, and sheep into the field before the stalks are wasted, thus saving the labor of harvesting and storing. Market the stock as rapidly as it finishes or when the corn is gone.

5.—Snap and crib for winter feeding all corn that has reached the hard glazed or dented stage. The cribs should be narrow and ventilation should be provided by the insertion of poles or tile through the length or crosswise of the crib.

Professor Boss makes three suggestions for the securing of seed for next year's planting. These are:

1.—Save all stocks of seed of good germinating quality from last year's crop.

2.—Have a seed corn week on your farm and pick and cure the most mature ears. Corn that has reached the glazed stage can be used for seed if properly cured and stored. It is best, of course, to pick the mature ears.

3.—Farmers who cannot pick from their own fields seed corn for next year's use should make arrangements for getting it this fall. The chances are that there will be a serious shortage of satisfactory seed corn next spring.

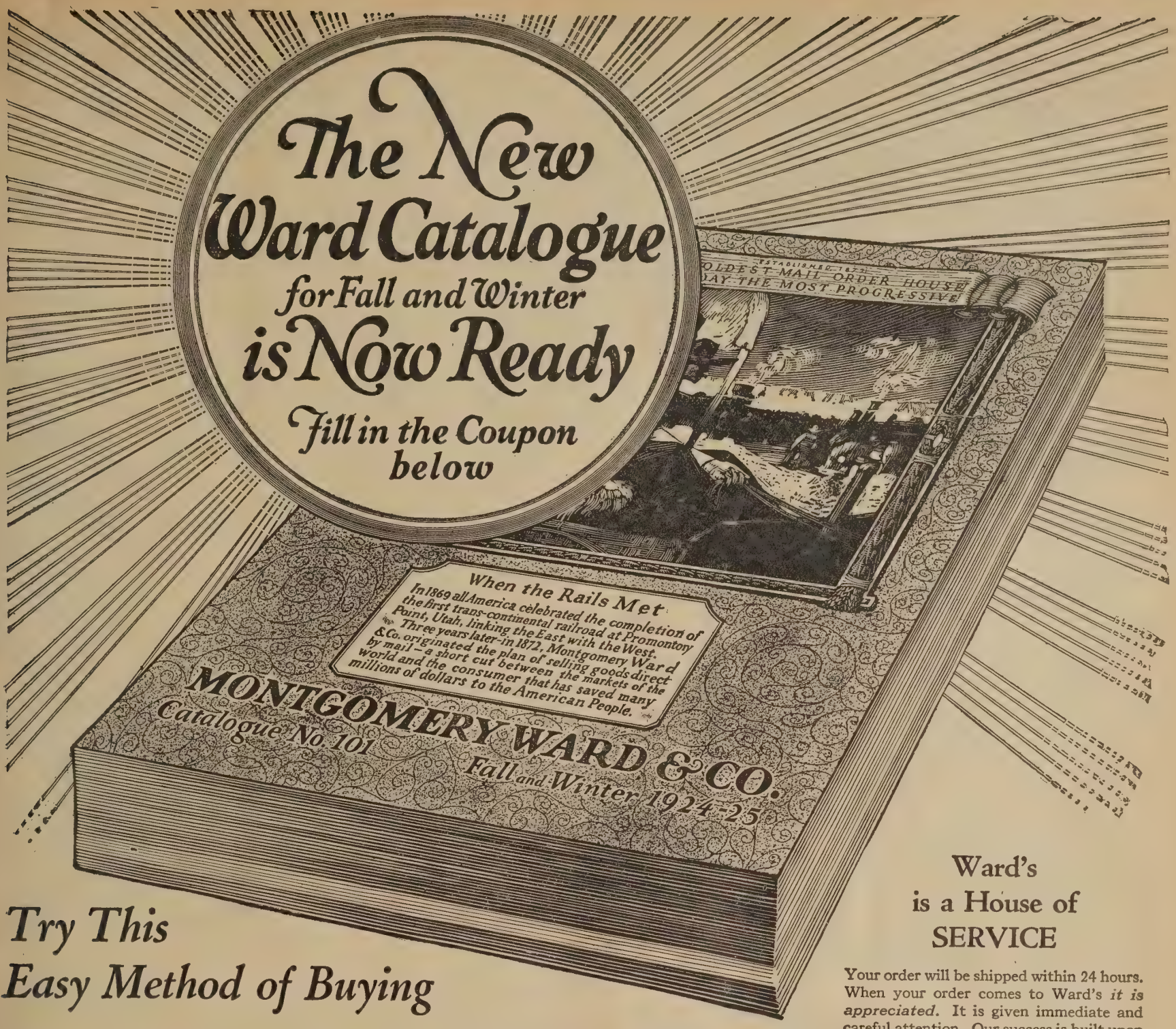
Milked Dry

Six-year-old Freddy, bred in the city, was on his first visit to his uncle's farm. At breakfast he heard that his uncle's Jersey cow had been stolen during the night.

"That's a good joke on the man who stole her," was Freddy's comment.

"Why?" asked his uncle.

"Why, just before supper last night the hired man took all the milk out of her."—From Everybody's Magazine.



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Yes! Some Factory Methods are Practical for the Farm

American manufacturers have found that maintenance is one of the big secrets of efficient factory management. And it would pay American farm owners to follow their lead. When house or barn needs repairs don't put it off. Paint where needed. Replace the shabby, patched old roofs.

Spruce up your farm buildings with substantial new roofs. Real estate men will tell you that sturdy handsome roofs are a big factor in getting your price if you ever want to sell.

For your house, Barrett Shingles furnish a roof that is colorful, fire-safe and lastingly weathertight. Sparks and embers falling on a Barrett Roof burn out harmlessly. This is important to the man living far from a good fire department.

For your barns, sheds, etc., Barrett Roll Roofings are the accepted standard. They're durable, easy and economical to lay, and highly fire-resistant. Once you put Barrett Roofings on your buildings, these roofs are off your mind to *stay off*. No more worry about leaks, no painting or patching. Barrett Roofs won't rot or rust.

Call on the nearest Barrett dealer. Ask to see Barrett Roofings. (Leading lumber, building supply and hardware merchants carry them.) There's a Barrett Roofing that's 100% right for any building on your farm.

Barrett ROOFINGS

Your Choice of Six Styles

Everlastic Smooth-Surfaced Roofing

A roll roofing of best grade roofling felt, saturated with high grade waterproofing material. Made in medium and heavy weights. Tough, pliable, elastic, durable, low in price, and easy to lay.

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A beautiful and enduring roll roofing. Mineral-surfaced in red, green, or blue-black. Popular for cottages, garages, farm buildings.

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Handsome enough for the expensive home, economical enough for small farm house or cottage. Mineral-surfaced in beautiful shades of red, green, or blue-black, with extra-thick, extra-rigid base. Size 8" x 12¾".

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Four shingles to a strip. Mineral-surfaced in red, green, or blue-black. Two sizes—10 or 12½ inches deep, both 32 inches long, providing two or three-ply roof when laid 4 inches to weather.

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The newest mineral-surfaced strip shingle. Colors: red, green, or blue-black. Can be laid in novel designs by interchanging red strips with green, or red strips with blue-black.

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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Wash.	Gray's Harbor	July	G. J.	66.4	H. B. King
Mich.	Iron Co.	"	R. H.	83.3	Wills Bros.
"	Macomb 2	"	R. H.	72.6	W. Manska
"	Genesee 3	"	R. H.	73.3	L. Jessop
"	Alp.-W. Kent	"	R. H.	81.5	G. Kober
"	N. Antrim	"	R. J.	68.2	E. Lochne
"	Branch Co.	"	R. J.	63.1	L. Weber
Minn.	Askov	"	G. G.	70.5	Petersen Bros.
Wis.	Superior	"	G. G.	61.4	Douglas Co. Farm
"	Allen.-Kohlsville	"	R. H.	65.0	L. Pamperin
"	Rock Elm	"	G. G.	54.9	B. O'Maro
"	Spr. Valley	"	G. G.	76.4	R. Rudesell
"	Maiden Rock	"	G. H.	85.1	Crystal Sp. F'm
"	River Falls	"		85.1	J. Chapman
"	Ells.-Prescott	"		61.1	W. Bieslir
"	Cashton	"	G. G.	75.0	H. Wakeman
"	Wil.-Norwalk	"	R. H.	63.5	J. Steinhoff
"	Clif.-Kendall	"		64.5	Dwyer Bros.
"	Cataract	"	G. G.	59.6	W. Merow
"	Cen. Monroe	"	G. G.	75.8	E. Baumbach

Association Notes By Testers

Gray's Harbor, Wash.: Practically all members feed grain and hay to supplement pastures. Pastures are very dry for this time of the year and production is decreasing proportionately. The condensery and cheese factory paid 47 cents per lb. for fat. Milk retailed for 10 cents per quart. —F. R. Haynes.

Macomb No. 2, Mich.: A new sanitary milk house was constructed and four tubular coolers were installed. Fifteen tubular coolers are now in use by members of this association. The general report of the users is that it reduces the amount of milk sent back, not being 60 degrees. One member turned cattle on sweet clover pasture. Cattle leave common pasture for the sweet clover. Market milk sold for $3.00 for base f. o. b. Detroit; $1.74 for surplus.—C. Blumer.

Alpine—West Kent, Mich.: A good acreage of alfalfa sown this spring is doing fine. All but three members feed grain on pasture. One new milk house was built. Market milk sold for $2.60 per cwt. The condensery paid $1.75 per cwt. for milk; the creamery, 41—43 cents per lb. for fat.—P. C. Wittenbach.

North Antrim, Mich.: This association completed its second successful year August 8. It was reorganized at once so no time was lost on high producing cows. The association average per cow for the month of July was 678 lbs. milk, 26.8 lbs. fat; value of product, $9.90; total cost of feed, $2.20; net value of product, $7.70; returns for each dollar spent for feed, $4.48; cost per lb. fat, 8 cents; cost per 100 lbs. milk, 32 cents. Ernest Lochne had the high herd for the year with an average herd of 5.83 cows that produced 7,735 lbs. milk, 393.4 lbs. fat and netted him $87.29 per cow above cost of feed. Ruby, a pure-bred Jersey, also owned by Mr. Lochne, took the honors for high cows with 484.6 lbs. fat.

Branch Co., Mich.: The association average for July was 672 lbs. milk, 28.93 lbs. fat. E. L. Stauder has a herd of 19 high grade Holsteins which averaged 1,049 lbs. milk, 34.98 lbs. fat on just pasture and silage. Fifteen members feed grain with pasture. Market milk sold for $2.50 per cwt. and retailed for 12 cents per quart. The creamery paid 37 cents per lb. for fat.—L. Q. Kitchen.

Allenton—Kohlsville, Wis.: The proven sire, Cedar Lawn Canary Paul 6th, at 10 years of age, leads 10 of his tested daughters, better than their dams, as a cow testing association exhibit from the association at the coming National Dairy Show. The Wisconsin Holstein-Friesian Association is in charge of this special feature, paying all expenses. The condensery paid $1.88 per cwt. for milk; the cheese factory, $1.50. Milk retailed for 8 cents per quart in July.—V. M. Anderson.

Pierce Co., Wis.: In the month of July 2,074 cows were tested in the five associations, of which 260 produced 40 lbs. fat or over. Plenty of rain and cool weather help pasture and cows are holding up fairly well on production. Creameries paid 38—43 cents for July fat. Second cutting of alfalfa is being gathered and grain cutting practically done and some have already started threshing. Favorable weather will make ripe corn if no frost for three more weeks.—C. Engleman.

Orangeville—Sharpsville, Pa.: The second annual cattle show of this association was held Aug. 15. Seventy-five cattle were on exhibition; all, excepting ten, being pure-bred. Ayrshire, Guernsey, Holstein, and Jersey breeds were represented.

A parade was staged which included the highest producing cows in each of the dairy breeds. Little girls dressed as fairies led each breed group with an appropriate placard and each cow was accompanied by a boy carrying a banner showing the cow's yearly production of milk and butterfat. Several of these cows later won ribbons in the judging ring, a proof that type and production go hand in hand.

The judging was of a demonstrational nature and was followed with keen interest by those in attendance. A prominent feature of the day was a boys' and girls' judging contest.

This association was organized in 1922. The average production per cow in 1923 showed an increase of 715 pounds milk and 30.1 pounds fat above that of the previous year and all indications point to another decided increase for 1924. The 1923 average per cow was 7,483 pounds of milk and 296.9 pounds butterfat. Every member is using a pure-bred sire and all are feeding balanced rations.

To H. S. Service, tester for this association, in co-operation with County Agent W. S. Hagar of Mercer County, is due the splendid association progress being made and the success of this annual show.—E. B. Fitts.

Entries for Show and Sale

All entries for the grade cow exhibit and sale must be in by Saturday, September 6. Get the entry blanks for the Show from W. E. Skinner, 414 Carpenter Bldg., Milwaukee. Get entry blanks for the sale from C. L. Hill, Rosendale, Wis. The Holstein-Friesian Association of America is offering $300 as special prizes in the Holstein classes.

Kent—Alto Report

The association year in the Kent-Alto, Mich., Cow Testing Association has been completed. Several sales occurred during the association year and each sale proved that cow testing records helped realize a better sale price.

R. D. Bancroft had the highest producing two-year-old cow. His grade Jersey made 7,679 lbs. milk and 422.4 lbs. fat. A. E. Wingiere had the high three-year-old. His grade Holstein made 13,395 lbs. milk and 468.9 lbs. fat. Roy Jones had the high four-year old. His grade Jersey made 8,938 lbs. milk and 491.4 lbs. fat. C. W. Johnson had the high cow of the association, a six-year-old pure-bred Jersey, making 8,572 lbs. milk and 577.5 lbs. fat.—D. E. Bliss, Tester.



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CHANNEL TREAD

30 x 3½ clincher cord

Low in price ~ But not a "cheap tire"

The Hood Channel Tread is well designed and well built especially for light cars. For the man who does not want to tie up money in several seasons' mileage, and yet who is not interested in cheap, "bargain" tires, the Hood Channel Tread is reliable and offers excellent value for the money.

For longer service, we recommend the Hood 'H' Tread or the Hood White Arrow Cord and for the utmost in comfort, Hood Balloon Cords (with or without wheel change).

It will be worth your while to look up the Hood Dealer in your vicinity. He will give you straight-from-the-shoulder information which will help you invest your tire money to bring the greatest returns.

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"We've had our Chevrolet four years and it has been a great benefit to us as well as a pleasure, *—and at a cost of $8.25 for repairs."*

J. H. NAGLE, Newton, Illinois

This experience is typical of the use of Chevrolet cars by thousands of farmers. A Chevrolet is especially adapted to farm work and for traveling over the rough country roads because it is sturdily built with a deep 4½ inch frame with 4-frame cross members. It has a powerful valve-in-head motor with a strong, spiral-bevel gear rear axle.

The low purchase price includes complete equipment. The experience of thousands of users proves that Chevrolet averages the lowest cost per mile. The dependable performance of the car is backed by thousands of service stations operating on a flat rate basis.

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Superior Roadster	$495	Superior 4-Passenger Coupe	$725
Superior Touring	510	Superior Sedan	795
Superior Touring DeLuxe	640	Superior Commercial Chassis	410
Superior Utility Coupe	640	Utility Express Truck Chassis	550

Prices f. o. b. Flint, Michigan



Ever Failing or Never Failing Pasture

(Continued from page 171)

eed was used. The conclusion is hat five to eight pounds of good carified seed per acre is enough, rovided soil conditions are right, nd there is little advantage in seedng more than this amount. One ound of sweet clover seed contains bout 300,000 seeds: five pounds er acre would make 34 seeds per quare foot; if only one in seven of hese develops into a plant, it will ive five per square foot, which is lenty. If, however, the soil lacks me or the seed or soil are not inculated, it will be of no avail to sow bushel of seed per acre.

T' e Experience of Two Men

"We have used a mixture of cloers for pasture for five years. The weet clover smothered everything lse the second year. We since find wo pounds of common sweet clover plenty in the mixture, the plants rowing faster and larger.

We think that it is common to adise too high a rate of seeding of weet clover, as the thin stand will ake a more rapid top growth and, consequence, a larger deeper root, nd will in the end furnish more eed than the thicker seeding. Also the soil be not adapted to the weet clover, the amount of the eeding will not make much differnce."—C. A. Hunt, Northern Illinois.

"I sowed a mixture of two pounds sweet, four of Mammoth, and four alsike clover and four of timothy er acre with small grain. In the ring of 1923 all of the mixture inter-killed except the sweet clover hich was very thin. Notwithstandg this fact, 10 acres pastured 13 ead from April 15 to September 1." -Andrew Johnson, Northern Illiois.

dvantages and Disadvantages of a Pasture Mixture

Seeding a mixture of other clovers id grass with sweet clover affords ariety and insures against a shortge of pasture between the time the cond year crop dies and the spring eding is large enough to turn onto. ot many such cases were reported the questionnaire, but it does ocr at times. If there are acid spots a field, there is an advantage in wing a mixture because some of e other kinds of seed will grow tter in these acid places.

Some of our best farmers and rm advisers think it is best to sow mixture of clovers and a little orard grass or timothy for the reas mentioned above, while other equally thoughtful and experienced dairymen and advisers think it is better to sow the sweet clover alone, because when a mixture is sown the cows eat the finer clovers and grass in the bottom first and let the sweet clover get too high and tough before they eat much of it. If sweet clover is sown alone, they will eat it from the start and keep it down to where it is more palatable.

Nearly half of the farmers answering the questionnaire sowed red and alsike clover and timothy with their sweet clover. Where this was done, it required about 25 per cent more land to pasture a cow than where sweet clover was grown alone, because the smaller clovers and timothy do not produce as much feed per acre as does sweet clover. It also costs more per acre for the seed, where a mixture is sown.

A good combination where a mixture is desired is: sweet clover, four pounds; red, two; alsike, one; alfalfa, one; timothy, one; and orchard grass, one. Provided conditions are favorable, a seeding of 10 lbs. per acre of this mixture should make an excellent stand.

Second Year Sweet Clover a Pasture Not a Hay Crop

The stems are very large and woody in hay made from the second year's growth, and a number of dairy cattle died in Northern Illinois last winter evidently from eating this kind of hay. It caused a trouble quite similar to hemorrhagic septicemia, the cattle often bleeding to death from a slight cut. Difficulty has been experienced in Canada from the same cause and in some cases from feeding moldy sweet clover silage. Stubble clover the first fall often gives a good yield of hay of the best quality, and this trouble has never been reported from such hay.

No Luck to It

Growing sweet clover is no more a matter of luck than the raising of any other hay crop. If a man doesn't lime and inoculate his soil where it needs it for sweet clover, he has no more chance of getting a stand than if he were to go through all the operations of raising corn, with the exception of planting the seed. There is no chance to it; he is beaten from the start in each case. The facts are that the only man who has "luck" with his sweet clover is the one who provides the correct conditions for its successful growth.

New Holstein Records in Maryland

Three Maryland state records for itter production among Holstein ws were broken recently by cows the herd of the Springfield State ospital herd.

Delilah Jewell Canary Repeater is w the state's leading cow of the eed for production in ten months a junior four-year-old. Her recd is 16,547.1 pounds milk and 576.36 unds butterfat equal to 720.4 unds butter.

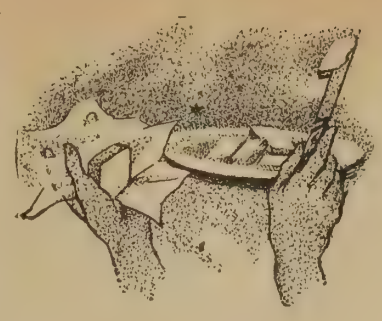
For production in ten months as a nior three-year-old, Howard Star nette Prince holds the highest cord with 14,673.9 pounds milk and 1.04 lbs. fat (626.3 pounds butter).

Segis Manor Star, a senior twoar-old, is now the highest produce in her class for seven consecutive ys. Her record is 472.8 pounds lk, 17.31 lbs. fat, (21.64 pounds tter.)—Extension Service Holstein-iesian Ass'n. of America.

Dairy Tours

Six tours of the "dairy belt" around Milwaukee have been arranged for visitors to the National Dairy Show there, Sept. 27 to Oct. 4. The tours include trips through Waukesha, Jefferson, Dane, Dodge, and Washington Counties, the principal counties of the milk region. There will be one all day trip to Madison, the capital, and the seat of the agricultural college. The Waukesha tour will take but a few hours, and the others vary between that time and the all day ride. Commodious busses have been secured for travel, and prominent "show farms" as well as the practical small farm, will be included on each trip.

Says Sam: When at the end of a blistering day comes up a thunder shower, take a little time out quietly to see, feel, hear, and smell. It's a time when you can be glad you're alive, and out in the country.



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San Francisco, California.
The Creamery Package Mfg. Company, 699 Battery Street.
Geo. W. Prising Co., Inc., 88-96 Clay Street.
Denver, Colorado.
Beatrice Cry. Supply Co., 18th & Wynkoop Streets.
The Creamery Package Mfg. Company, 1649 Blake Street.
Atlanta, Georgia.
Bessire & Company, Inc. 26 Central Avenue.
The Creamery Package Mfg. Company, 58 Nelson Street.
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The Creamery Package Mfg. Company, 61 W. Kinzie St.
Peoria, Illinois.
J. G. Cherry Co.
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Bessire & Company, Inc. 101 E. South Street.
Cedar Rapids, Iowa.
J. G. Cherry Company, 10th Ave. and Fourth St.
Sioux City, Iowa.
Kennedy & Parsons Co., 11 West Third Street.
Waterloo, Iowa.
The Creamery Package Mfg. Company, 406 Sycamore St.
Louisville, Kentucky.
Bessire & Company, Inc. Eighth and Main Streets.
Baltimore, Maryland.
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The Creamery Package Mfg. Company, 140 Wash. St., N.
Wright-Ziegler Company, 12 So. Market Street,
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The Dairy Supply Company, 110-112 Second St., North.
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Owatonna Creamery Supply Company, 117 West Main St.
St. Paul, Minnesota.
J. G. Cherry Company, 27 Fairfield Ave., E.
Kansas City, Missouri.
The Creamery Package Mfg. Company, 1408 West 12th St.
N. A. Kennedy Supply Co., 1315 W. 13th Street.
St. Louis, Missouri.
Blanke Mfg. & Supply Co., 214 Washington Avenue.
The Creamery Package Mfg. Company, 508 Second St., N.
Meyer Dairy Equipment Co., 422 N. Third Street.
Omaha, Nebraska.
The Creamery Package Mfg. Company, 113 South 10th St.
Kennedy & Parsons Co., 1219 Leavenworth Street.
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Buffalo, New York.
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Oakes & Burger Company.
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Cherry-Bassett-Winner Co. 400 Canal St.
Syracuse, New York.
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Utica, New York.
National Dairy Equipment Co., Inc., 525 Whitesboro St.
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John W. Ladd Company, 54 West Maple Street.
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Erie, Pennsylvania.
Oakes & Burger Co., 505 French Street.
Philadelphia, Pennsylvania.
Cherry-Bassett-Winner Co., 1918 Market Street.
The Creamery Package Mfg. Company, 1907 Market Street.
Pittsburgh, Pennsylvania.
Cherry-Bassett-Winner Co., 1139 Penn Avenue.
The Creamery Package Mfg. Company, 804 Du Quesne Way.
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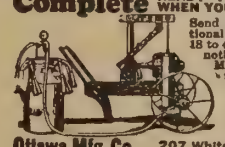


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POWER MILKER $142
Complete READY TO MILK WHEN YOU GET IT
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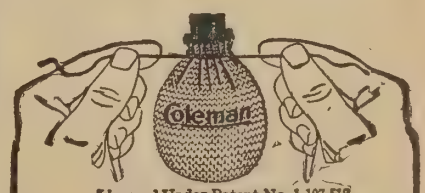
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4. Easy to attach. Best for use on all makes of gasoline lighting devices.
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SATURDAY, SEPTEMBER 27TH—
Exposition opens at Fair Grounds.
College Students' Contest in Judging Dairy Cattle.
Factory Machinery and Supply Exhibit opens. Milwaukee Auditorium. 10 A. M. Free to Public.

MONDAY, SEPTEMBER, 29TH—
College Students' Contest in Judging Dairy Products.
Boys' and Girls' Contest in Judging Dairy Cattle.
Grade Cow Judging.
International Association of Milk Dealers' Convention opens.
American Dairy Science Association Meeting.
City Milk Dealers' Day.
National Farmers' Cattle Judging Contest.

TUESDAY, SEPTEMBER 30TH—
Guernsey Cattle Judging, Fair Grounds.
Grade Cow Sale begins.
National Creamerymen's Conference.
International Assn. of Milk Dealers' Conference.
American Dairy Science Assn. Banquet.
Creamery Operators' Day.
Dairy Pioneers' Day.

WEDNESDAY, OCTOBER 1ST—
Holstein Cattle Judging, Fair Grounds.
International Association of Milk Dealers' Convention closes.
American Dairy Federation Meeting.
Cheese Factory Operators' Day.
National Cheese Ass'n. Meeting.
Illinois Day.
National Dairy Farmers' Conference.
Milwaukee Day.

THURSDAY, OCTOBER 2ND—
Jersey Cattle Judging, Fair Grounds.
Ice Cream Factory Operators' Day.
Ice Cream Manufacturers' Meeting.
Michigan Day. Minnesota Day. Wisconsin Day.

FRIDAY, OCTOBER 3RD—
Ayrshire and Brown Swiss Cattle Judging begins at Fair Grounds.
Judging Boys' and Girls' Club Calves.

SATURDAY, OCTOBER 4TH—
Final Day.

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National Dairy Exposition

MILWAUKEE - - September 27--October 4

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

DAIRY MARKET NEWS

Cheese Markets

(U. S. Department of Agriculture)

Cheese markets remain unsettled, with distributing markets irregular, trading dull, and a slight reduction in price. Production continues to be large, with storage surplus heavy.

The average wholesale prices on American cheese, style Twins, for the week ending Aug. 23, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Aug. 23 1924	Aug. 16 1924	Aug. 23 1923
	Cts.	Cts.	Cts.
New York	21.0	21.1	25.6
Chicago	18.9	19.2	23.7
Boston	21.2	21.2	25.8
San Francisco	18.9	19.0	25.5
Wisconsin Boards	18.1	18.8	24.1

The receipts of cheese at these markets were 4,107,103 lbs. for the week as compared with 5,471,827 lbs. last week and 4,934,484 lbs. a year ago.

FOND DU LAC, Wis., Aug. 27—Average cheese prices (majority of sales), f. o. b. shipping point: Twins, 18¾c; single Daisies, 19¼c; Longhorns, 19½c; square prints, 20¼c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange, Aug. 23: Single Daisies, 18c. On Farmers' Call Board Aug. 23: Single Daisies, 18c; Young Americas, 18c; Longhorns, 18c; square prints, 19c.

NEW YORK, Aug. 28—Butter—Firm; receipts, 15,144 tubs; fresh supply, 60,733 tubs; creamery extras, 38¼@38½c; specials, 39@39½c.

Eggs—Dull; receipts, 22,824 cases; fresh supply, 72,123 cases; white, fancy, 53@56c; fresh firsts, 35@43c; western whites, 36@53c.

MILWAUKEE, Aug. 28—Butter—Creamery, extra, tubs, 36½c; standards, 35½c; extra firsts, tubs, 34@35c; firsts, 32@33c; seconds, 30@31c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 33½@34c; ordinary firsts (standard cases), 32½@33c; miscellaneous lots, shippers' cases returned, candled, 30@33c; seconds, dirties, 23@24c; checks, 22@23c.

Cheese—American full cream, Twins, 18½@19c; Young Americas, 19@19½c; Longhorns, 19@19½c; Daisies, single, 18½@19c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 17@18c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

CHICAGO, Aug. 28—The cheese market appeared a trifle steadier, although buyers still lacked confidence and confined purchases to immediate requirements. Supplies, while fairly liberal, were not burdensome and sales were well within range of prices listed. Interest in cured cheese was irregular, but fancy goods were firmly held.

CHICAGO, Aug. 28—Trade in the butter market was fair and ruled firm on all scores. Dealers were holding firm on all grades and in some cases were asking premiums. Demand centered around 89—90-scores. Some trade was reported on top scores mostly at 37¼c. The centralized car market was firm with 89- and 90- core cars short and held for premiums, but buyers showed little interest.

Fresh butter—92-score, 37¼c; 91-score, 36¼c; 90-score, 35½c; 89-score, 34½c; 88-score, 34c; 87-score, 33½c; 86-score, 32c. Centralized carlots—90-score, 36½c; 89-score, 35c; 88-score, 34c.

Wisconsin July Milk

The Wisconsin Department of Agriculture reports that the average price of milk for all purposes was $1.63 per hundred, as compared with $1.95 for July, 1923.

Butter Markets

(U. S. Department of Agriculture)

Butter markets opened with all markets firm on top scores and with increased sales during the week. Reports indicate heavier receipts and continued movement of goods into storage. Some Argentine and Danish butter, together with 325 tubs of 90-score centralized and 5 tubs fancy sweet cream American butter, were shipped to England.

The average wholesale prices on 92-score butter for the week ending Aug. 23, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Aug. 23 1924	Aug. 16 1924	Aug. 23 1923
	Cts.	Cts.	Cts.
New York	39.1	38.3	44.5
Chicago	37.0	36.7	43.6
Philadelphia	39.8	39.2	45.6
Boston	39.3	38.6	44.6
San Francisco	40.2	40.6	45.3

The receipts of butter at these markets were 15,517,521 lbs. for the week as compared with 15,489,036 lbs. for last week and 13,121,062 lbs. a year ago.

A Nebraska Champion

N. P. ReBecky Segis Hengerveld bred and owned by the University of Nebraska North Platte Substation has completed a 365-day test as a senior 2-year-old, with 19,410.3 pounds milk and 880.43 pounds of butter (not yet reported). During the earlier part of the lactation period she was milked only three times daily. This production gives her first place among Nebraska cows in the 365-day division of the senior 2-year old class. Her sire is Varsity Derby Matador and her dam ReBecky Segis Gerben, both bred and owned by the University of Nebraska.

Nebraska. W. P. SNYDER.

California Butter Champion

California's new champion Holstein cow for butter production in ten months as a junior four-year-old is Ormsby Mechthilde Prilly of the Bridgford Holstein Company herd. Her record is 23,034.3 pounds milk containing 830.11 pounds butterfat equivalent to 1,037.6 pounds butter. This is the second highest butter record in the United States for cows in this class and is third highest for milk production, according to an announcement made by the Advanced Registry Department of The Holstein-Friesian Association of America.—Holstein-Friesian Ass'n of America.

Old lady said of Southwest—"Don't raise much except alpaca and they have to irritate the soil to raise that."—PAUL NEACY.

Carload Prices of Hay, Straw, and Feed, Aug. 23, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	30.00	30.50	.....	.....	.....	24.00	26.00	23.00	20.00	25.50	20.00	24.50	.....	16.50	
No. 1 Clover, mixed	20.50	.....	.....	.....	.....	.....	.....	.....	18.00	20.00	18.00	.....	.....	14.50	
No. 1 Clover	.....	.....	.....	.....	.....	.....	.....	.....	19.00	16.00	.....	16.50	.....	15.50	
No. 1 Alfalfa	.....	30.00	.....	.....	.....	31.00	28.75	26.50	26.00	24.00	22.00	.....	15.50	20.00	
Standard Alfalfa	.....	26.50	.....	.....	.....	24.00	26.50	24.00	.....	18.00	18.50	.....	13.00	18.00	
No. 2 Alfalfa	.....	25.50	.....	.....	.....	22.00	.....	20.00	20.00	16.00	15.00	17.00	11.00	15.75	
Oat Straw	13.00	14.50	.....	.....	.....	.....	.....	.....	12.00	12.00	9.50	.....	8.50	.....	
Feed—Bagged															
Wheat Bran	.....														
Spring	33.00	.....	32.50	.....	36.00	34.00	.....	.....	29.00	27.25	23.50	.....			
Soft Winter	34.75	.....	34.00	.....	32.50	34.50	.....	27.50	30.50	.....	.....	26.00		24.00	
Hard Winter	33.00	.....	32.75	.....	.....	34.00	.....	27.00	29.00	27.50		26.00	24.00	24.00	
Wheat Middlings	.....	.....							.....						
Spring (Standard)	35.00	.....	34.50	.....	32.00	40.00	.....	.....	32.50	29.50	25.00	.....	.....	.....	
Soft Winter	39.50	.....	39.00	.....	33.00	42.00		.....	35.50	.....	.....	31.75		30.00	
Hard Winter	.....	.....	.....	.....	.....	38.00	.....	.....	35.00	.....	.....	.....	30.00	30.00	
Wheat Millrun	35.50	.....	35.00	.....	.....	38.00	.....	.....	.....		26.00	.....	.....	.....	
Rye Middlings	.....	.....	.....	.....	.....		.....	.....	.....	28.00	24.00	.....	.....	.....	
High Protein Meals	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	
Linseed	52.50		52.00	.....	.....	.....	.....	44.00	50.00	46.50	45.00	48.50	50.50	50.25	
Cottonseed (41%)	52.00	.....	51.00	.....	.....	.....	.....	.....	46.00	48.00	47.00	47.50	.....	.....	
Cottonseed (36%)	48.25	.....	47.50	.....	47.00	40.00	.....	40.00	42.00	45.75	45.00	44.00	.....	.....	
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	60.00	
No. 1 Alfalfa Meal	.....	.....	.....	.....	31.00	.....	.....	28.00	28.00	27.00	.....	26.50	26.00	.....	
Gluten feed	47.55	.....	44.50	.....	43.90	.....	.....	.....	43.30	40.40	41.50	40.00	.....	.....	
Hominy feed (white)	48.50	.....	48.00	.....	45.00	45.00	.....	.....	42.50	43.50	.....	.....	40.00	.....	
Hominy feed (y'llow)	48.25	.....	48.00	.....	44.50	45.00	.....	.....	42.50	42.00	40.00	.....	40.00	.....	
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	41.00	43.00	40.00	.....	.....	.....	
Dried Beet pulp	.....	.....	.....	.....	40.00	.....	.....	.....	.....	44.50	.....	.....	.....	.....	

Flemish Beat French Cows

HOARD'S DAIRYMAN:—For some time past Belgian dairymen and farmers have claimed pride of place for their cows, declaring them to be infinitely superior to the French variety. France has retaliated by stating that the native cow has no equal, that its milk and butter have ever been unsurpassed, and that the Flemish animal is greatly overrated. The hoped-for *entente* between the two countries being in danger, the French and Belgian Ministers of Agriculture arranged that representative cows from France and Belgium should be on view at the Agricultural Show which has just taken place in Paris. The farmers of the Netherlands, confident in the superiority of their cattle, agreed, and with the result that Belgian has beaten France. Never was victory more overwhelming.

Out of the nine cows to carry off prizes, no fewer than seven were Flemish, the best of the French animals being relegated to the fifth place. The Belgian milch cow which bore away the first prize yielded sixty-four and a half *kilos* (142 lbs.) of milk in forty-eight hours, while the milk produced by another Netherlands prize winner in twenty-four hours resulted in three pounds, twelve ounces of butter being made. The two French cows on the honors list came nowhere within reach of these figures.

The French Minister of Agriculture, in making his official report on the Show, has congratulated the cowkeepers of France on the increase of the milk production. During the last twelve months it has risen by eighty-eight million gallons, and the public lives in hopes that the pre-war price will soon be reached. But this, alas, is unlikely, the annual output still being nearly two hundred and fifty million gallons less than it was ten years ago.

France. GEORGE CECIL.

New York Dairy Notes

The milk committee still meets in Utica but I doubt if it is still called the committee of fifteen. At least the three League men do not attend. The league has announced that they will meet any real representatives that wish to discuss methods and policies of better marketing. This seems to be fair. A meeting of the others was held August ninth and prices were discussed. Some still desired a resolution for a $2.33 price for fluid milk and others wanted one advising for a "higher" price. Finally it is stated that they declared for $2. It must have been about that time that the League stated $2.06 and the Sheffields went shortly to $2.10. Milk supply shortened and the League advanced to $2.60.

Quite a number of dairymen, while desiring more money for milk, feared that $2.60 under present conditions was too high. We heard nothing from the city but supposed that the retail price went up at least a cent a quart, for the League advanced almost one and three-fourths cents and the Sheffields almost a cent on the price to the farmer. The Eastern States had been trying to hold their fluid price in the city to that of the League, it is understood, before this last advance, and it is possible that they are still doing so. A League fieldman informed me that retailed bottled milk has not been advanced. That some of the milk dealers are apparently co-operating with the League in an effort to straighten out the difficulties looks encouraging. Retail prices still stay at thirteen cents, they report.

⚜

League certificates are still being bought in by the association but those of series A which may now be cashed are not offered very freely it is said. People prefer keeping them apparently. They have tangible assets back of them. The finances of the association seem to be in a strong position. There is over a half million appropriation all told for the purchase of 1927 certificates and it will doubtless be used for that purpose. There were over four million of these issued.

⚜

We are all wondering what is coming from the present price situation as respects feeds and milk. These are out of proportion and have been for a long time. The fact is getting hold of dairymen sharper than ever. Many say that they will not produce milk at these prices and many say also that they will not buy grain feeds at the present prices. A man from the state college was here a few days ago and he said that the price of cattle feeds depends on the price of milk, not so much on the price of grain. Possibly, for it is demand, not cost, that determines grain feed prices. Most good authorities expect grain feeds to decline somewhat.

It looks as though milk will bring more money from now on and may bring quite a bit more unless dairymen buy more heavily of feeds than they now say they will. Personally, I have not been able to agree that it will be better not to feed, but that may depend mostly on the cow. It means better pasture in some way, I am convinced. Does it mean more home grown oats, peas, and barley with the peas inoculated when sown? It means more clover and it seems to me more alfalfa even in this rather unfavorable section for alfalfa.

New York. H. H. LYON.

The Grandstand Umpire

A northern man, spending the summer in the South, went to see the last game of a series between two local teams. For a time he could not observe any umpire, but at last he spied him sitting up in the grandstand among the spectators.

"Great guns, man" the northerner exclaimed to a native. "What's the umpire doing up in the grandstand?"

"Well," the native explained, "the spectators used to accuse him of bum work so much that he allowed that if the folks up in the grandstand could see every play so durned good, he'd better go up there to do his umpirin'."—Everybody's Magazine.

For age and want save while you may;
No morning sun lasts a whole day.
—BENJAMIN FRANKLIN.



This Red Strand marks the Fence you ought to buy

Only in this new, perfected "Galvannealed" Square Deal do you have a chance to get wire with *so much zinc protection*. The zinc coating on "Galvannealed" Square Deal Fence is guaranteed much heavier than any other fence—from 2 to 3 times more than ordinary galvanized wire. The coating is not just laid on the outside, like frosting on a cake—*but welded right down into the body so it can't come off.*

The Triple Life Wire
Galvannealed Square Deal Fence
(No Extra Price)

—is also made from *copper-bearing* steel, which means a steel wire with copper mixed in to make it rust-resisting from the core clear to the outside.

So you may be sure you are getting this extra long lasting fence, we have marked every roll with a *Red Strand* (top wire) —this means "Galvannealed" fence.

You won't even have to remember what the famous can't-slip Square Deal Knot is like—*just look for the Red Strand.*

You won't have to remember the stiff, one-piece picket-like stay wires that make fewer posts necessary and hold Square Deal straight and trim—*just look for the Red Strand.*

Don't worry if you forget to look for the full gauge well crimped strand wires that make Square Deal so springy and expand and contract with the seasons—*just look for the Red Strand*—

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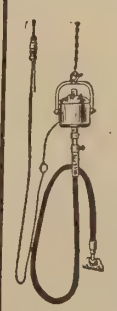
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NOTICE
Square Deal Fence, famous for many years, is now made only by our new "Galvannealed" process. *Always look for the Red Strand. No extra price.* The old method requires asbestos wipes which leave only a thin zinc coating. *The new "Galvannealed" way* runs the wire thru long 28 feet zinc pans; a special heat treating operation welds into the wire this extra heavy zinc protection. This process, which results in "triple-life-wire" is owned and controlled by Keystone.



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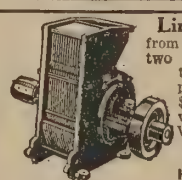


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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Daniel Dare Selects Seed Corn

Foreword—This is the first of a series of short stories on the "Adventures of Daniel Dare". Danny is a typical 12-year-old American farm boy. His father owns and operates an 80-acre dairy farm, and is considered a progressive, up-to-date farmer. Danny has an older brother, Tom, who never "took to farming", and two sisters. Tom expects to leave soon for his first year of college. One sister is in high school; the other is ten years old. Unlike his brother Tom, Danny is a born farmer and absorbs the latest agricultural knowledge like a sponge absorbs water. Next week Danny makes a visit and learns how to cure corn.

Daniel Dare was happy. He wore a broad smile. His father had just told him that he could have an acre of clover sod for a corn patch next year. Daniel had long wanted to be a corn club member. He had talked it in the day time and dreamed it at night. His best chum, Jimmie Watkins, was president of the K. K. K. (King Korn Klub) and champion corn club grower in Morris County. Daniel wanted to beat his chum's record.

After Danny had finished helping his father with the early morning chores, he slipped away to the south of the barn to think. He surveyed his father's corn field with pride and with awe. It was a beautiful Indian summer day. The sun shone brightly. Tomorrow would be the second of September—the first day of school. He noticed that the leaves on the corn plants were whitish in appearance.

"What's bothering you, son?" His father had come up behind unnoticed and this greeting rather startled Danny.

"I want to grow a big crop of corn on my acre, dad, and I'll need some good seed, won't I? How'll I get it?"

"What's the matter with that corn there, Danny? It's pure-bred Murdock. I usually pick my seed while the corn is still standing. It gives you a better idea of the way the corn grows. I was planning to pick mine tomorrow, but you'll be in school, won't you? C'mon, we've got a few minutes now. I'll help you. Run over to the barn and get that bag with the strap on it hanging up there by the grain bin."

Danny needed no urging—and quicker'n you could say Jack Robinson he was back again with the sack.

"Sling it over your shoulder, Dan—we'll start up this row here. Let's look for ears that are about three feet from the ground. You want to remember that like produces like and if the ears we pick are at about this height the plants grown from this seed will grow their ears like that. The ears are easy to handle at harvest time when they grow at that height."

They walked slowly down the row and Mr. Dare continued: "See here, notice this ear. It's at about the right height, and it's drooping. When they hang down at an angle like that toward the ground, they shed water better. It also shows that the ear has good weight. Let's open this one up and see what's inside." He pulled back the husks exposing long, straight rows of golden kernels. "Good—rows straight, color a good orange yellow, kernels deep and well dented, not too much cob, rows carry out to butt and tip. Let's take this one along." and he gave it a twist, tossing it into the bag. "Now you pick out one."

Daniel's first choice proved out well when he opened it. His second looked good on the outside but the rows were found to be crooked so it was left. Together father and son worked up and down the rows—Danny ahead a few paces picking them out, his father tactfully watching, occasionally giving a bit of advice.

"Say, dad," suddenly piped up Danny, "this bag is getting awful heavy. How much corn do I need anyhow, to plant an acre?"



Daniel Dare examined this ear of corn, found it to conform to the qualifications of a good ear, and threw it into his bag.

"Better have too much than too little, my boy. A half bushel of corn on the ear would probably do, but a bushel is better. If you were picking out a good calf you would get a better one if you had several calves to choose from, wouldn't you, and the more calves the better your choice probably. Just so with this corn. Some of it might not test out so well. And then you might lose some of your seed this winter if you aren't very careful, by mice and water, you know. But I see your bag is pretty heavy and about full. Dump it at the end of the row and fill again. There's a piece of corn I want you to see especially."

So Danny dumped his bagful and with his father went over to another part of the field. "This ground is a little sandy and not quite so fertile as the rest of the field. But see those tall plants in there towering above the rest. There are several ears and not too much leaf and stalk on some of those plants. Take a few ears from those biggest plants. They have done well on poor soil and proved themselves superior to the rest."

It did not take so long to fill the second bag as the first. "Where will I keep my seed corn?" asked Danny, as he gathered the pile of seed at the end of the field into a bushel basket and filled it with what he had in his sack.

"Take it up in the attic, Dan. String the ears on some baling wire, husks and all, and hang between the rafters. I hope you'll soon find out the best way to cure your corn, but it'll be all right this way for a few days."

Success With Sheep

Up in the northernmost part of Wisconsin's dairyland, where the waves of Lake Superior lap the sands, is located, on a dairy farm, a fine family of juniors—every one of them members of the Hoard's Dairyman Juniors' Club. They are working hard, helping their parents and helping themselves. Henry Du Bay, Sr., their father, is secretary of the Bayfield County Guernsey Breeders' Association. Henry, Jr., called Harry, has assumed the duties of spokesman for this splendid group of Hoard's Dairyman Juniors. He is doing some good work managing a flock of sheep. Here is an account written for you Hoard's Dairyman Juniors by Harry:

I am 12 years old and sheep manager on Dr. Kleinhans Stock Farm.

Professor Frank Kleinheinz of the State College of Agriculture visited our farm last summer and he praised our sheep highly. He also helped us select a suitable site for our new sheep barn, which is a very good looking building 30x140 feet, with a loft for clover, also a lean-to addition containing 9 lambing pens, feed room, etc.

My duties with the sheep do not take a great deal of my time, because my father attends them when ill or lambing.

In the morning I carry them water, give them clover hay. My father feeds them their grain according to each ones' need. Sometimes we feed them a small amount of silage, not too much. A year ago we made the mistake of feeding too much silage and the crop of lambs were large, flabby, and a good many died. This year we feed less silage and the lambs are spry and active.

After I come from school I look up the sheep and count them, and if any are missing I hunt in the pasture until I find them. Sometimes 3 or 4 separate from the flock, and they seem so delighted when I find them and guide them home.

Sometimes some of the fat ewes get square on their backs near a log or something, and lay there helpless until some one rolls them over so they can get on their feet.

I help to hold the sheep while my father shears them. We get from 10 to 16 pounds from a sheep. After they are sheared we dip each sheep in disinfectant. My father says the beauty of sheep is that they need so little attention. But this I know, whoever goes in the sheep business and makes a success must learn one word of four letters, and remember it always, and always live up to it, too—and that word is C-A-R-E. *Care* in all things. *Care* makes constitution. *Care* makes carcass. *Care* is the keynote to all the sheep business.

Besides sheep, we have pure-bred Duroc-Jerseys and 16 beautiful pure-bred Guernsey cows. My brothers and I help my father milk, which is quite a chore because we milk three times a day, but we all like to milk and see who can make the best record each time. Our herd sire is a wonderful type. Dr. Kleinhans purchased him from the State Agricultural College at Madison. His name is Dairymaid's Standard of Iowa, No. 28946. We are putting an official record on all of our cows.

My father is farm manager for Dr. Kleinhans. We have lived here four years. There are seven of us. We all help father all we can. Dr. Kleinhans is good and kind to us.



A FINE FAMILY OF HOARD'S DAIRYMAN JUNIORS
Left to right: John DuBay (16), Merle (14), Harry (12), Russell (9), Helen (6), George (4), Joseph (2).



Harry DuBay is proud of this Shropshire ram, and no wonder for this animal was imported from Scotland. He is the head of a flock of 36 registered Shropshire ewes.

He is one of the best doctors in Chicago, and he does a great deal of charity work.

He started to develop this propery eight years ago. Now he has a farm of 550 acres with over 150 acres under cultivation. It is equipped with modern buildings with concrete foundations, heated and equipped with electric lights. Besides the sheep barn, the stock barn is fully equipped with drinking cups and cork brick, and everything up-to-date—36x125 foot hay room for 160 tons of hay, an implement shed 26x130 feet, chicken house 16x108 feet, and a large new hog barn, sunlight type. We have Louden equipment and King ventilation system. We have a nice nine-room house with two bathtubs and electric lights.

At school I am in the seventh grade. My two older brothers are both in High School one in first year, and the other in second. We live right on the south shore of Lake Superior. My brothers and I go swimming in Lake Superior almost every day now.

I am glad I am a junior. We think Hoard's Dairyman is the best farm paper published.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Contagious abortion in dairy cattle is a disease which has caused nearly every dairy farmer considerable loss. Perhaps your father has had this disease in his herd. Perhaps a heifer or cow which you own has given premature birth to her calf. In the August 29th issue of Hoard's Dairyman is an article by B. T. Simms of Oregon, on the subject, "Controlling Abortion in Cattle".

Discuss the cause of contagious abortion in dairy cattle. This disease is caused by a germ called Bacillus Abortus. This germ will not grow outside of the animal body, but it will live for several months in dark damp places.

How does abortion spread? The germs are discharged by the sick cow. In experiments at the Oregon Agricultural Station the usual method for the spread of infectious abortion was found to be penning or pasturing pregnant cows or heifers with aborting cows.

Tell about the tests for contagious abortion. There are two reliable laboratory tests used to detect this disease. They are known as the (1) agglutination and, (2) the complement fixation. The first is the simpler and the one in most general use. This

test tells which animals are a source of danger.

Outline a program for the disease free herd. No successful treatment has been found to cure abortion. There are certain precautions that every dairyman can take to keep his herd free from this disease. The program worked out by experimenters at the Oregon Agricultural College includes: 1. Never add a female of breeding age to the herd until she has been tested for abortion. 2. Before adding any animal to the herd give it an antiseptic bath. 3. Do not pasture cows or heifers with untested cows or heifers. 4. Beware of stray cows. 5. Look out for the disease on the show circuit. 6. Test the herd annually for abortion.

How has the New York Experiment Station kept its herd free from tuberculosis? For the past eighteen years the herd has been free from this disease. A tuberculin test has been used at regular intervals. Previous to 1905 infected animals were removed whenever discovered and careful management of the herd since has kept it free from tuberculosis. (See article by A. C. Dahlberg).

Is sweet clover a good milk feed? Yes. Rightly handled, sweet clover makes a most satisfactory ration for economical milk production. (See W. J. Fraser's article).

Junior Letters

About a Goat Dairy

Hoard's Dairyman Juniors:—I am a little girl nine years old. I have no brothers or sisters, but several pets—an angora cat, several kids (that is the right name for baby goats). My mamma and daddy run a goat dairy. We live on a small farm ten miles from Denver near the Platte river. The soil is rich and we have plenty of water to irrigate with. The main crops around here are



DUELA WALLER AND NEPTUNE OUT FOR A MORNING SPIN

sugar beets, alfalfa, wheat, oats, corn, celery, cabbage, and other garden truck. There are many neighbors that milk cows and ship milk to Denver in a truck every morning.

We raise our own garden truck, and alfalfa to feed our Swiss milk goats, and we raise the kids so we have goats to sell every year. We have about 55 head and about thirty of them fresh. They are good milkers, most of them give from a gallon to a gallon and one-half each a day. It sells for 35c a quart in Denver.

I am learning to milk and have lots of fun playing with the kids when they are little. I help feed them and they will follow me everywhere.

Saanen milk goats give more milk for the amount of feed they eat than any other dairy animal. A good Saanen goat will give from one to two gallons a day. It takes eight goats to eat as much as one cow.

Here is a riddle: What is it that jumps like a grasshopper, cries like a baby, and runs on four legs? Ans: A little kid.

I am sending my picture with my big goat, Neptune, that I drive. I used to ride him too, but I got too heavy. I love to ride horseback.

When I am ten years old mamma is going to give me a doe kid to raise for my own.

We have one horse and about 100 White Leghorn chickens.

I like the Junior Department and always read it. My address is Eastlake, Colorado.

Duela Waller.,

Janet's Favorites—Ayrshires and Ponies

Hoard's Dairyman Juniors:—I am writing my first letter and am 11 years old. My father owns two farms. On one he sells certified milk. On this farm he owns 250 acres and on his other farm he owns 1,000 acres. He has about 225 Ayrshires. I like animals very much.

I have two ponies. They are thoroughbred Shetland ponies. One of their names is Zelda, the other is Merrylegs. I have a girl friend and she rides Merrylegs and I ride Zelda. My father bought Zelda at a fair for my brother and the next spring she had a little baby pony. When she was little she kicked somebody, so they called her Merrylegs. When my brother got too big for the ponies he gave them to me.

Last summer I went up to the farm with my father when all the heifers were out to pasture, and I saw a pretty heifer, and I asked my father if I could have her, and he said, "Yes". I showed her at the Worcester fair and got third and my father's heifers got first and second and at Springfield I got fifth and at Brockton I got fifth prize. I got $26 in all. I think I would have got more if I had shown against boys and girls, but I showed against men.

Besides that heifer I have two other Ayrshires—one is a cow, the other is a heifer. I have an Aberdeen Angus baby beef, and two police dogs, and one Wire Hair Fox Terrier puppy. Last summer I drove the hay rake for my father, and this summer he said that he would buy me a work horse for this summer so that I can drive it. You have probably seen my picture before, of the pony pulling my police dog and myself on a load of hay. It was on the cover of Hoard's Dairyman. I would very much like to have some of the juniors write to me. My address is 7 High St., Spencer, Mass.

Janet Sagendorph.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

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STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

Holsteins—Carload young cows $75.00. EDWARD YOHN, Watertown, Wis. 4-5

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Waupaca County high grade Holstein and Guernsey cows and heifers for sale in carload lots or will assist you in buying. JENNINGS FARMS, New London, Wisconsin. 5-7

Springers—8 second calf, grade Holsteins, bred to a 930.80 lb. junior two year old record, show bull. Also registered bull and heifer calves from above sire. R. L. ANDERSON, Whitewater, Wis. 7-4

Fine Herd registered Holsteins to place on shares. FRED HARRIMAN, Appleton, Wis. 7-3

Bull born October 11, excellent individual, Echo Pontiac breeding. $125. E. L. NEWBERRY, Chardon, Ohio.

For Sale—Holsteins. 4 registered and 5 real grade cows, with 33 lb. bull. Cows freshen this fall. Make me an offer. Barn and feed burned. WM. WYLDE, Greenup, Ill.

Forty Registered Holsteins. Any number up to carload. Good stock. Low prices. DR. HAINES, Three Rivers, Mich. 8-2

For Sale—Carload high grade Holstein cows between three and six years old. Can also fill mixed car high grade cows, two year olds, yearlings and heifer calves. Address CHARLES A. WILLIS, R. R. 2, Ashland, Wisconsin.

For Sale—Carload good Holstein springing heifers. E. E. LEWIS, R. 3, Racine, Wis. 8-3

For Sale—Any part of fifty Guernsey females. Also a real good Guernsey bull. F. J. GLANVILLE, Lancaster, Wis. 8-4

Registered Guernsey Bulls nearing serviceable age. Best May Rose, Golden Secret breeding. A. R. dams, herd accredited. ALLIC KNUDSON, Brodhead, Wisconsin. 8-4

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Splendid Guernsey bull calf, A. R. dam. Sixty-five dollars. B. McADAM, Mosinee, Wis. 7-2

Buy a Herd Sire from a herd that is breeding up. We have increased our advanced registry average from 478 lbs. fat to 609 in three years. These are actual figures on young stock, not figured as aged cows. A few females. R. P. GUPTILL, Elcho, Wis. 7-2

Guernseys—Registered bull, age 8 months, also two grade heifers, bred, priced to sell. T. B. tested. LYNN BRIGGS, Van Dyne, Wis. 7-2

For Sale—Reception Sybil Ronald, three years old. Dam has record of 379.08 pounds fat at 3 years one month. J. J. PAUL, New Albany, Ind.

I have For Sale a carload of high grade Jersey milk cows with cowtesting association records, averaging 235 lbs. fat in 9 months. Over stocked. Mostly young winter cows. JOHN F. SAMUELSON, Irma, Wisconsin. 7-2

For Sale—Ten grade Brown Swiss heifers. Dams produce 6000 pounds milk yearly. Age 18 months to 2½ years. Seven about to calve. Headed by 2½ year thoroughbred bull. J. L. FUELLING, Kent, Indiana.

STOCK WANTED

Wanted to Buy—Brown Swiss cows, good milk producers, pure-bred or grades. Address, giving prices, WINDHAM FARM, Harvard, Ill. 6-3

Wanted—Fine young 5 gallon 2 lb. registered Guernsey or Jersey. ED BERAUER, Waldron, Ind.

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

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Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred Hunting Hounds cheap. Trial catalogue. BECK, W19, Herrick, Illinois. 5-4

For Sale—Pedigreed Airedale pups. JANEHURST KENNELS, Waukesha, Wisconsin. 6-4

POULTRY

Single Comb White Minorca Cockerels. CHRIS LONKE, Sunman, Indiana. 7-2

SWINE

May Chester White Boars at fifteen dollars apiece till September 20th. Write quick. ERNEST D. WHEELER, Beloit, Wis.

June Pigs—Pure bred Chester Whites, $10. DAVE SEXTON, Calderwood, Mich. 8-2

FARMS FOR SALE

250 Acres—2 sets bldgs., 23 cows, 3 horses, crops, 1924 auto truck, poultry, full implements, tools, etc; income nearly $4000 last year; money making farms all around; near village, city markets; 150 acres fields, 45 cow river watered pasture, woodland, about 500 sugar maples; apple orchard; good 2 story house, spring water, tenant house, 60 ft. basement barn, silo, garage, granary, stable. To settle affairs all for $7750, less than half cash. W. H. MAYNARD, Canastota, N. Y.

For Sale—162 acre dairy farm 8 miles from Peoria, Ill., on concrete road. Excellent improvements, good well, two springs, fine community and excellent graded school one mile away. A real bargain. Owner, BOX A, Washington, Ill. 7-2

Farms For Sale—We sell farms, large and small, with rich soil located in Central Ohio near modern schools, highways, churches and towns at low prices with small amounts down and balance in 20 annual payments. Write THE MADISON COUNTY LAND COMPANY, London, Ohio. 7-2

For Sale or Rent—Dairy farm of national reputation, ½ mile from city limits of Waukesha, 12 miles from Milwaukee. All improved; on cement highway. J. D. BECK, Waukesha, Wis. 7-2

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

Owner of good central Wisconsin farm will give right man exceptional opportunity with small payment down. E. HAWKS, 4406 Pabst Ave., Milwaukee.

Giving 160 Acres Land; near city. Good buildings, good land, old Wisconsin. Buy improvements and personal property and get land. 35 head Holstein cattle, complete equipment. Room 208 Commercial National Bank Bldg., Madison, Wis.

FOR RENT

For Lease—Model dairy farm fully equipped for certified milk. 18 miles from Washington. 200 cow barn capacity. Railroad station 1-4 mile from barn. Ample tenant houses. 100 acres of alfalfa. Annual milk receipts $40,000. Could be easily increased 50% to 100%. Leasing farm on account of death of owner. Executors can offer attractive proposition to experienced dairyman with capital. G. M. HUTCHISON, Sunset Hills, Virginia. 7-4

For Rent—Four dairy farms from 110 to 432 acres, good soil and location; excellent milk market. Write FRANK W. FISHER, R. R. 4, Janesville, Wis. 8-2

Alabama Alfalfa Dairy Farm for rent on 50-50 basis. 50 acres in alfalfa, balance of 936 acre farm in clover, pastures and meadows. Conveniently located churches and school. Excellent oppertunity for right man. For particulars write or wire owner, W. O. HALL, Sumterville, Alabama.

PARTNER WANTED

Wanted—Dairy farm partner. R. N. SNOW, Pagosa Springs, Colo. 5-5

Wanted—Working partner with own help, large dairy farm. 18 PHOENIX BLDG., Duluth, Minn.

DAIRIES

For Sale—Dairy and retail milk route, near Muscle Shoals, accredited herd, fine market. SWEETWATER DAIRY, Florence, Ala.

MACHINERY

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 25-10

For Sale—Eight new cream separators never removed from box. Bargain prices for quick sale. THOMAS TAFFEE, Box 355, Lansing, Mich. 7-5

For Sale—Two double unit Universal milking machines with piping and stall cocks for 30 cows. Complete without engine. Price $200. D. M. HOILIEN, Westby, Wis. 7-2

Want to Buy a hay bailing press in good condition. Give name, make, model, and year, with price in first letter. BOX 266, care Hoard's Dairyman. 8-*

Pasteurizer—Perfect, two hundred gallon. A HOPSON, Girard, Illinois.

AGENTS WANTED

Sales Agents—Full line quality shoes direct to consumer. Quick sales. Big income. Instant returns. Permanent repeat business. No stock necessary, sample kit supplied. Valuable territories now open. Write TANNERS SHOE, 46 C St., Boston, Mass.

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

TOBACCO

Homespun Tobacco. Chewing 5 lbs. $1.75; Ten $3.00. Smoking 5 lbs. $1.25; Ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 5-4

Homespun Tobacco—Chewing, five pounds, $1.75; ten, $3.00; twenty, $5.25. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Ky. 7-4

Natural Leaf Tobacco—Chewing five pounds, $1.75; ten, $3.00; smoking, five pounds, $1.25; ten, $2.00; pipe free, pay when received. Tobacco Guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 8-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

For Sale—150 tons alfalfa and clover hay, $15.00 f. o. b. Twin Lakes, Wisconsin. BELVOIR FARMS, Lake Geneva, Wis. 8-3

SILOS

Silo Bargain—12x20 Washington Fir Silo. Never erected. ALBERT C. WOLLIN, Johnson Creek, Wisconsin. 7-4

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*



Advertising in this department is 7c per word. Remit in advance.

POSITION WANTED

Position Wanted—As milker of from 15 to 18 cows, while attending one year of high school. State nearness to school, number of cows, wages paid for such. KENNETH A. BROWN, R. 1, Janesville, Wis. 7-2

Position Wanted by experienced feeder and test cow milker. Single, absolutely reliable. Address BOX 263, care Hoard's Dairyman. 7-2

Married Man, small family, wants farm or dairy work. Separate house or will rent equipped farm. W. H. BAKER,, Waumandee, Wis.

Wanted—Position by October first as herdsman or on dairy farm by single man 30 years, reliable, clean, experienced with cattle, calves, hog raising, team. Address BOX 267, care Hoard's Dairyman.

Wanted—Job by single man twenty-five years old. Experienced in test cow milking and feeding, especially four timers; milking machine operation and milk house work. Not afraid of hard work. Am reliable. Please state wages in first letter. GERALD BROOKS, R. R. 2, Pleasant Lake, Ind.

Position Wanted as farm manager or foreman. Married, no family, six years' experience in dairying and with test cows. Understand grain farming and stock raising. Can furnish very best of references. Can commence soon. GUY F. COVELL, care Larch Wood Stock Farm, Prophetstown, Ill. 8-4

Position Wanted—By American, age 37, on a certified or grade A milk farm. Can handle certified milk from the cow to the consumer. Can use Babcock tester, keep records and take care of all minor ailments of cattle without the aid of a veterinary. Have 15 months' experience in the bottling house and know that work thoroughly. Can handle men and desire position where hard conscientious work will be appreciated. Best of references as to character and ability. Prefer the east but will go anywhere. Address BOX 262, care Hoard's Dairyman.

Wanted—Responsible position in dairy or cheese factory by graduate chemist. 129 SOUTH VIRGINIA, Belleville, Ill.

Hustling young married man, no children, wants place by October 1st on modern stock and grain farm where regular hours are kept. Illinois or Iowa preferred. Experienced with tractors and modern machinery. Will keep things going when owner is away. Consider place both can help. Reference. State facts, mean business. EDWARD HOLMES, Morrison, Ill.

Position Wanted by experienced dairyman, married, Hollander. Wages and so on in first letter. T. WALLENDAL, R. 2, Salem, Wis.

Position as managing herdsman. A. R. work. Reference. Southern states preferred. Address BOX 265, care Hoard's Dairyman.

Position Wanted by man 25, first class milker and cow man. Three years on milk route. No smoker. Wages $60 a month. NICK CHURCH, Route 3, Warren, Ohio. 8-2

Wanted—October 1st, position as working manager on modern dairy farm by experienced married man. Good reference. Address BOX 264, care Hoard's Dairyman.

Married Man, 28, one child, wants position on dairy farm. Life experience. State conditions and salary. Minnesota or Wisconsin. CLAUDE UPTAGRAFFT, Ladysmith, Wisconsin.

Wanted—Position as herdsman or farm manager. Single, age 25, good habits. Agricultural school graduate. Address BOX 272, care Hoard's Dairyman.

Married Dairyman wants position Nov. 1st. Good dry hand milker, feeder and calf raiser. Address BOX 269, care Hoard's Dairyman.

Married Dairyman wants position in Florida Nov. 1st. Address BOX 270, care Hoard's Dairyman.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, willing to accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

Men—Women. 18 up. Get U. S. Government Life Positions. $95 to $192 month. Steady work. No layoffs. Paid vacation. Short hours. Pull unnecessary. Candidates coached. Common education sufficient. Full particulars free. Write immediately. FRANKLIN INSTITUTE, Dept. P107, Rochester, New York. 4-5

Herdsman Wanted for State Institution in North Dakota. Jersey herd. We want an experienced feeder and good milker to take full charge. Apply at once, stating salary. Address BOX 248, care Hoard's Dairyman. 6-*

Wanted—Man for milk route and dairy work. Must be honest and reliable, neat in appearance and a gentleman. No cigarettes. State age, wages, experience, full particulars, and give references. Address BOX 241, care Hoard's Dairyman. 6-*

Wanted—Experienced herdsman to take charge of a Raleigh bred Jersey herd. Must be a man of good morals. Well posted on blood lines and breeding of Jersey cattle. Must be a real good milker. In fact he must possess all qualities that it takes to make a first class dairyman. This position pays $165.00 per month and house rent free. Address all communications to W. S. HONNOLL, Business Manager, State Insane Hospital, Jackson, Miss. 6-*

Position Open October first for experienced herdsman, single. Must be experienced in both short and long time test work, for production of certified milk and be able to handle men efficiently. Prominent Holstein breeding establisnment. Modern barns. Good wages paid to man who can produce results. Give age, experience and references in first letter. Address BOX 255, care Hoard's Dairyman. 7-4

Wanted—Working herdsman with experience to take charge and build up herd of Red Polled cattle and herd of Duroc Jersey hogs. Single. Will pay $50.00 per month with board and room. Good opening for an industrious man. Have an opening for single farm hand with experience. Address PINNEY-PURDUE FARM, R. H. Bamer, Supt., Wanatah, Indiana. 7-2

HELP WANTED

Wanted—Hustling married man to care for 200 acre hay and dairy farm, 15 to 25 cows. Wish to hire with privilege of renting. Good opportunity for right man. Will rent all furnished. Close to good school town. W. O. BOHART, Bozeman, Mont. 7-2

Wanted—Two families that have enough help to run a 400 acre grain and dairy farm on 50-50 basis. Good neighborhood, school. Hollander, Swiss or German preferred. Must give good reference. J. P. MAST, Scranton, Kansas. 7-2

Wanted—An experienced bottle room man who thoroughly understands the producing of clean milk. Will pay $70.00, room and board. BOX 235, Dixon, Ill.

Wanted—Test cow milker in large herd of registered Holsteins and Guernseys. BROADHURST-SCUDDER FARMS, Trenton, N. J.

Wanted—Farm hand for dairy farm, good milker. State wages and experience. JAY MARSTON, Postville, Iowa.

Wanted—Reliable single man interested in clean dairy room work, bottling, sterilizing, etc. Experience not so much necessary as common sense and willingness. BROADHURST-SCUDDER FARMS, Trenton, N. J.

Wanted—A sober, reliable, and agreeable married man to work on dairy farm to assist with the milking and do general work, in fact anything that comes to hand. Prefer a man who had some members of the family that could assist with the milking. House, garden and fire wood furnished. H. E. BOSWELL, Box 66, Burkeville, Va. 8-2

Wanted—A single young man of good habits; must be good dry hand milker. $55.00 month with room and board. Extra pay for milking test cows. Good homelike conditions. Only dairy work required. Give reference. SYCAMORE FARMS, Douglassville, Pa.

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 8-4

A Great Guernsey Producer

7,400 Pounds From One Cow and Seven Daughters

We are told that the average dairy cow produces about six living calves in her lifetime. From a comparative standpoint, then, the great reproducing record that has been made by the pure-bred Guernsey cow, Pride of Birth, is worthy of note in these columns. Not only has this cow produced eleven living calves, of which eight were females, but she and her progeny have made a list of fourteen Advanced Register records totaling 7,399.95 pounds.

Pride of Birth has two records, including one of 12,943.5 pounds milk and 641.12 pounds fat as a mature cow. Seven of her eight daughters also have at least one Advanced Register record, and the other is now on test. One of her daughters, Pride of Castle Haven, has three daughters and one son in the Advanced Register. Another daughter, Pride of Place, also has three daughters and one son in the Advanced Register.

Of her three sons, two are already in the Advanced Register. One of them, Falcon's Proud Warrior, is now in service in a Connecticut herd and has six Advanced Register daughters and eight more on test. Another son, Langwater Hornet, has five Advanced Register daughters and two more on test. Her third son, Gerar Uncle Jim, will also enter the Advanced Register within the next two years, so that Pride of Birth will then have every one of her eleven calves in the Advanced Register.

Pride of Birth was owned by several breeders during the fifteen years of her life. She was bred by H. McK. Twombly, New Jersey, and was later owned by J. L. Hope of the same state; O. A. Turner, Maryland; F. L. Ames, Massachusetts, and spent the last years of her life on the farm of Louis McL. Merryman, Maryland, where she died in 1923 at the age of nineteen years.—The American Guernsey Cattle Club.

State Guernsey Champion

The Pedigreed Seed Company of South Carolina owns Violet of Orchard Springs that has recently completed a record that makes her the state champion of class DD for the Guernsey breed, as well as making her the tenth highest producing Guernsey cow in the world in class DD. She produced 11,934.5 pounds milk and 680.92 pounds fat, with an average test of 5.71 per cent.—American Guernsey Cattle Club.

Breeding Experiment in California

A study of the methods used by practical breeders in their attempt to fix the transmission of high production in dairy cattle shows three methods that have been followed: (1) inbreeding, (2) linebreeding, and (3) outcrossing. Each method has its following. There are those who believe that to follow the method of linebreeding is to be insured of success, whereas to inbreed is to meet with certain disaster. There are others who think inbreeding the most successful method to follow, while others practice outcrossing.

The wild cow from which our present dairy cow descended gave very little milk, probably only enough to nourish her calf for two or three months at most. Through thousands of years of patient selection man has developed animals capable of giving great quantities of milk, until further progress can be made only with great difficulty.

Because of the fact that there is a tendency for the off-spring of high producing animals to revert in production towards the average of the breed, it is difficult to maintain the high production that has been developed in our better animals. Is there some method of breeding by the use of which a breeder may be insured that the daughters of his high producing animals will themselves, with a reasonable degree of certainty, be profitable animals? In other words, can we prevent this tendency to revert to the average of the breed? Is there any merit in any of the systems of breeding now being used? If so, which one of these is the best? Is there any other system that may be used?

These are some of the questions that the University of California, through its Department of Animal Husbandry, is attempting to answer for the dairy cattle breeders of the state in a breeding experiment that is now being carried on in co-operation with the Dairy Division of the United States Department of Agriculture.

The first part of this experiment is comparison of inbreeding to outcrossing as a means of fixing and insuring the transmission of high milk production. This experiment was started at the New Jersey Experiment Station in 1918. The cattle, thirty-two pure-bred Jerseys together with four years of data that have been collected on them, have been recently purchased by the University of California and the animals are now at Davis. The experiment started with three Jersey bulls and eighteen cows. These three bulls are unrelated. One of these, Lucky Fern, is a son of Lucky Farce, a cow that until recently held the world's record as a yearling. At present we have a number of his daughters which are about to freshen. The second bull is Pogis Torono Experimenter, a son of Hillside Emperor out of Hillside Torono. The other bull, Gravity's Exile of Lusscroft, is a son of Exile Bonnie Gold Bug by Options Pogis of Lusscroft.

The females of the Jersey group are divided into three groups. Each group is mated with one of these bulls. The females resulting from the first mating, or the first generation of female progeny of each bull, are bred directly back to their sires. The females resulting from his mating or the second generation of inbred animals will be mated again with her sire, giving the third generation of inbred females. These will contain 87.5 per cent of the blood of the sire. After the first generation of inbred animals has been mated back to the sires, in the next breeding they will be outcrossed on each of the other bulls in the experiment. Likewise the same comparison will be possible with the second and third generations.

The effect of these two methods of breeding will be determined by direct comparison. Three generations of inbred heifers will be compared with three generations of outcrossed heifers.

Complete records are being kept on every animal in the experiment. The effect of the different systems of breeding are noted by comparing:

1. The production of the animals. The amount of milk and the per cent of fat is taken daily for each cow.
2. Size and development. The animals are weighed and height measurements (at withers) are taken monthly from birth.
3. Constitutional vigor. Measurements of heart girth are taken monthly.
4. Reproduction. Complete breeding records are being kept including data on size and vigor of calves, age at sexual maturity, sterility, susceptibility to abortion, and sex ratios.
5. The general conformation of all animals is recorded by pictures.

In selecting the animals for the experiment care was taken to see that no animals showing any weakness whatever were used. No attempt will be made to select further as the experiment advances.

A similar experiment is being conducted by New Jersey Experiment Station in which linebreeding as a method of fixing and insuring the transmission of milk production is being compared with outcrossing. It is expected when these experiments are completed that some new information will be developed concerning the breeding of dairy cattle and it is hoped that this information may be of such a nature as to have a pratical application and simplify some of the problems relating to the breeding of dairy cattle.—W. M. REGAN, California College of Agriculture.

Ike: Why are you wearing so many coats on a hot day like this, Mike?

Mike (carryng a paint can): Why, I'm a-goin' ter paint me garage, begorra, and it says on the can here that to get the best results, a fellow should put on three coats.—Good Hardware.

SALE ANNOUNCEMENTS

Sept. 6—Holsteins. Iowana Farms Holstein sale at Davenport, Ia. O. E. Hatch, Mgr.
Sept. 6—Holsteins. Dispersion of the Chas. E. Hay herd at Findlay, Ohio. Ohio Holstein-Friesian Association, Managers.
Sept. 8—Cayuga County Guernsey Breeders' Ass'n., Auburn, N. Y.
Sept. 8—Holsteins. Dispersion of Geo. M. Flinn Herd at Medford, Minn., Twin City Pedigree & Service Co., Mgr.
Sept. 9—Guernsey Dispersal. M. A. Obercash, Hummelstown, Pa. (near Harrisburg).
Sept. 10—Holstein Dispersal Sale. J. C. Kostman, Bruce, Wis. W. H. Krause, Sale Mgr., Thorp, Wis.
Sept. 10—Holsteins and Guernseys, Barron, Wis. Holstein and Guernsey Associations of Barron County. De Lancey Bros., Sale Managers.
Sept. 11—Guernseys. Meeker County Breeders' Consignment Sale. Pure-breds and grades. Dassel, Minn. A. B. Rayburn Mgr.
Sept. 12—Guernsey Dispersal. A. A. Gillette, Locust Grove Farm, Lima, N. Y. Leander F. Herrick, Sale Mgr., Worcester, Mass.
Sept. 12—Holsteins and Guernseys, Menomonie, Wis. Holstein and Guernsey Associations of Dunn County. De Lancey Bros., Sale Managers.
Sept. 15—Guernseys. Louis Merryman, Timonium, Md.
Sept. 16—Holsteins and Guernseys, New Richmond, Wis. Holstein and Guernsey Associations of St. Croix County. De Lancey Bros., Sale Managers.
Sept. 18—Holsteins and Guernseys, Eau Claire, Wis. Holstein and Guernsey Associations of Eau Claire County. De Lancey Bros., Sale Managers.
Sept. 19—Holsteins and Guernseys, Chippewa Falls, Wis. Holstein and Guernsey Associations of Chippewa County. De Lancey Bros., Sale Managers.
Sept. 26—Guernseys. W. E. Wright, Akron, Ohio. Ohio Guernsey Breeders' Ass'n., Wooster, Ohio, Sale Managers.
Sept. 30 and Oct. 1—Sale of grade cows with cow testing association records at National Dairy Exposition at Milwaukee, Wis. C. L. Hill, Rosendale, Wis., Sales Manager for National Committee.
Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.
Oct. 6-7—Holsteins. Wisconsin Dairy Show Sale at Waukesha, Wis. Wisconsin Holstein-Friesian Association, Managers.
Oct. 7—Holsteins. Hillsboro Holstein Ass'n., Hillsboro, Wis. Gus Knick, Sec'y.
Oct. 8—Holsteins. Hickory Grove Farm's Second Annual Sale at Fairwater, Wis. W. J. Beilke.
Oct. 8-9—Mankato Holstein Farm Dispersal, 125 head. Mankato, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 10—Holsteins. Second Annual Freeborn County Consignment Sale. E. G. Cort, Mgr.
Oct. 11—Dr. H. P. Fischer Dispersal 75 Holsteins at Shakopee, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13—F. H. Bauer Dispersal 70 head Holsteins at Delano, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Oscar W. Hanson, 65 Holsteins at Withrow, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.
Oct. 16-17—Johnson County Holstein Co. Dispersion Sale, Warrensburg, Mo. J. L. Ferguson, Secretary.
Oct. 21—Guernseys. Goldmead Farm's annual sale of Registered Guernseys at Versailles, O. Spiller & Worch, Owners.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Oct. 24—Holsteins. Dispersion of the Spring Valley Stock Farm herd at Pittsford, Mich. Elisha Bailey & Son, Owners.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.

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You pour it on right over the old roof and spread it out with a roofer's brush. You do it yourself in a few hours—no labor cost—you end your roof worries for 10 years to come.

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We ask no pay till 4 months of sun and rain have proved all our claims. SEAL-TITE must do what we say it will or it costs you nothing. Could you make a fairer offer if you wrote it yourself?

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REMEMBER, it's but a short distance from your cow's udder to the cream pitcher—the butter plate—the nursing bottle.

Keep her surroundings healthful, free from disease germs, and clean smelling, with Dr. Hess Dip and Disinfectant.

Provide a wallow for your hogs. To each 25 gallons of water, add about one quart of Dr. Hess Dip. Your hogs will do the rest. Good night lice and disease germs!

Use the sprinkling can—in the poultry-house for lice and mites, wherever there is filth or a foul odor.

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17 Yards Remnants $1.98



Linens Voiles
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As large manufacturers of ladies' wear, we have many lovely remnants left over. These we are now offering at rare bargain prices. They are all new, clean, fresh, high-grade goods, from 3 to 6 yards each; none less than 3 yards.

Large New Remnants of Beautiful Designs

For a limited time we are giving a dress pattern of a beautiful new model house dress free with every order. These 17 full yards of fine, rich material with free dress pattern, only $1.98. Send bust measure. Send No Money. Simply deposit this amount with postman when you receive the package, plus a few cents for postage. Or if you send $1.98 with order, we will prepay the same. Satisfaction guaranteed or money cheerfully refunded.

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DE HOL DRESS CO.
Dept. 176 26 Quincy Street, Chicago

10 Ormsby Cows — Several Excellent Young Bulls

I am offering for sale 10 good Ormsby cows sired by a grandson of S. P. O. M. They are from 4 to 7 years old and are fresh or due shortly. The bulls are exceptionally good calves priced to move quickly. This is a clean herd.

C. J. WILL TEMPLETON, WIS.

Belswood Farm Jerseys

Four choice bulls, 5 to 12 months of age, all out of Register of Merit dams. Accredited herd.

A. F. BLOCK, Mgr. Norwood Park, Ill.

J. C. Kostman Holstein Dispersal

Wednesday, September 10, 1924

FARM EQUIPMENT TO BE SOLD IN FORENOON

32 HEAD OF REGISTERED HOLSTEINS, 24 cows and heifers, 8 bulls, the real show ring type. Herd on Accredited list. These cows all have good C. T. A. records.

Sale will be at farm 3 miles north of Bruce, Wis., on Federal Highway 40

Catalogues will be sent on request

AUCTIONEER: F. W. WILLIAMS, BRUCE, WIS.

Sale Manager: W. H. KRAUSE, Thorp, Wisconsin



A Healthy Mouth

If all people would only be sensible like our Dairyman family and not go crowding into the congested, unhealthful cities, it does begin to look as if the doctors would be able to get us all safely past our allotted three score years and ten and make us live any amount longer.

Of course there is no point in just barely cheating the grave till we are 110 or something like that, but I believe most people could just as well be alive and energetic and useful at 75 as to be sitting around waiting for their time to come, as so many do. Hardly a year passes now that something is not discovered that makes life not only longer but more enjoyable.

An elderly woman told me the other day that her grandfather had died of a mysterious disease originating in his mouth. He was a man of means and everything known at the time was tried. I suppose away back there they bled him one way and another until the poor man had no resistance left.

That same mouth disease was a mystery for hundreds of years. It began with tender, bleeding gums which got sorer and sorer until pus sacs were formed on them which discharged poison. This was carried through the body and poisoned it until the teeth dropped out and often the patient died. No need for it, but doctors simply didn't know what to do about it.

Nowdays we understand this disease called pyorrhea pretty well, thanks to the hard work of a good many scientific men. We know a lot about curing it but we know a great deal more about preventing it and that is the most important thing.

The disease starts from the tartar deposits on the teeth just at the margin of the gums. These deposits increase, irritate the gums, and eventually the disease progresses to the stage where pus deposits are formed. This is carried all through the body and poisons it.

It is really a very dirty disease. No cleanly person would put good food into a dirty dish and then expect to eat it, but thousands of people three times a day put food into mouths which, from the standpoint of bacteriology, are very, very dirty. It is like drinking polluted well water.

If you already have an advanced stage of pyorrhea there are two things to do. First, have a dentist clean and repair your teeth and then take care of them. You will find you have plenty of company for it is said that four out of five persons have the disease in this country. In most cases it is simply because they did not know how easy the prevention was.

The prevention consists of a semi-annual trip to the dentist (it is cheaper in the long run) and systematic care of the teeth. The latter is simple and consists only in a thorough cleaning night and morning. As in the case of any other disease the first thing is to get the body as a whole in the best condition possible.

In brushing your teeth be sure to use an up-and-down motion for the most part. It cleans them a world better than racing across them. Get a new brush before the old one has become too limp to be effective. Make sure that every child in the family has a brush and uses it.

Table salt is a fine thing to use as a dentifrice and many of our best dentists say it is superior to any paste or powder. Combined with soda in equal parts it is a good thing to use the last thing at night to counteract the mouth acids that work so hard while we sleep.

Salt has a tendency to harden the gums and keep them in good condition, only you must not use too much at a time for then it is irritating. Good circulation of blood through the gums is very important and can be helped by gentle massage with the finger tips.

In most cases health is just common sense with a little forethought and care. Many diseases come from bad teeth and we never know how many of these we are nipping in the bud when we keep our mouths in good condition.—LUCY THOMPSON.

Dog Days

This summer, in much of the United States, has been so cool and rainy that there is not likely to be the usual feeling about dog days. The weather may change, however, and I would like to put in a good word for our best animal friend, the dog.

He is no more a menace at one time of year than another if he is properly cared for. "Dog days" is a term that has no special significance in the minds of persons who think, while to the superstitious it means mad dogs, fevers, and possibilities of bad luck without end. These days have no definite onset but range from the first of July to some time in September and are so called from the ascendency of the dog star.

It is true that the weather may become very sultry and trying for both beasts and men but if we will only put ourselves, as nearly as possible, in the place of our animals we will at least see that their food is right and more especially that they have plenty of good, fresh water.

I have often heard men argue that because a horse refused water when it was offered it the first thing in the morning, it didn't need to be offered it later in the day. They never think to apply that reasoning to themselves.

The nicest dog I ever had as a child was an old black fellow named Mike. One day Neighbor Higdon came driving past just as Mike appeared in our front yard acting in such a way, I must admit, as to scare most anyone. He howled, he leaped into the air, he foamed a little at the mouth, and he kept running to my father with a most appealing look.

Father had the presence of mind to examine him and found that in nipping at the flies the dog had accidentally caught a bee which was stinging and buzzing unmercifully in his mouth.

The neighbor stopped to watch affairs and was told the cause of all the fuss. But he was a firm adherent of superstition and, as we were in the midst of dog days, he was sure old Mike was mad in spite of a quick return to his former dignified ways.

A few days passed and as my father showed no intention of killing the dog, Neighbor Higdon decided that as a means of protecting the community he had better do it and sure enough he did. Dog days never roll around that I do not remember the hideous injustice done my old playmate by that stubbornly superstitious man.

There are, of course, some true cases of hydrophobia and it is foolish to let any animal endanger the lives of human beings but it is also unfair not to surround animals with all the safeguards possible. Dogs cannot ask for a drink so let us do the kind thing and give it to them.—LUCY THOMPSON.

Cleaning the Teakettle

If you live where the water is very hard, as I do, your teakettle is constantly accumulating a deposit of alkali. I clean mine by setting it empty on the stove and leaving it there until it is crackling hot. Then I dash in quickly some cold water and you should hear the lime coming loose. After this I can take out quantities of it.

My teakettle is aluminum but my neighbor says that she uses the same method with hers which is granite and has no trouble with chipping the outside.—LUCY THOMPSON.

A Double Lesson

If your chickens just will not learn to keep out of the way of speeding autos which insist upon running over them, you might kill two birds with one stone yourself as a man I heard of did recently.

I am not saying that this is a true story but some one told me that this man had just bought a new car and that he was having a hard time learn-

(Continued on next page)

Fall and Winter Fashion Magazine



This reproduction of the front cover of the Fall & Winter Fashion Magazine shows the three styles on which special dressmaking lessons are given. These lessons are fully illustrated and show just how the material should be cut and how the pieces of the garment should be sewed together. The dress, child's dress, and blouse could be made by a beginner with the help of these lessons.

In addition there are a number of new embroidery designs, a spread of Xmas gifts which can be made at home, and about 300 styles in the new Fashion Magazine. The styles are simple and up-to-date—Paris and New York designs modified just enough to enable the amateur dressmaker to make them easily. This book is worth many times its price to you, so send 10 cents for your copy today. The embroidery patterns are 15 cents each. Address Fashion Department, Hoard's Dairyman, Fort Atkinson, Wisconsin.

Miscellaneous Fashions



No. 2149—Becoming One-piece Frock. C in sizes 16 years, 36, 38, 40, and 42 inch bust measure. Size 36 requires 3⅝ yards 4 inch material with 1 yard 36-inch contrastin

No. 1923—The diagram below will convin you of the simple construction of this becon ing model. Cut in sizes 36, 38, 40, 42, 4 and 46 inches bust measure. Size 36 requir 3½ yards 40-inch material with ¾ yard 24-inc contrasting.

No. 2140—Pretty Summer Design. Cut sizes 16 years, 36, 38, 40, and 42 inches bu measure. Size 36 requires 1½ yards 36-inc material with 1⅞ yards 36-inch contrasting

No. 2125—One-piece Dress for Girls. S diagram and be convinced how easy it is make. Cut in sizes 2, 4, 6, 8, 10, and 12 yea Size 8 requires 1¾ yards 32-inch material wi ¼ yard 18-inch contrasting.

No. 1714—Jacquette Blouse Style. Cut sizes 16 years, 36, 38, 40, 42, 44, and 46 inch bust measure. Size 36 requires 2 yards 3 inch material with ½ yard 27-inch contrastir and 1 yard ribbon.

No. 1883—Practical Apron. Cut in sizes 3 40, and 44 inches bust measure. Size 36 r quires 2⅛ yards 36-inch material with 5 yar of edging.

How to Order Patterns

Enclose 10c in stamps or coins (wrap co carefully) for each pattern ordered. Se your order to Fashion Department, Hoar Dairyman, Fort Atkinson, Wis. Every p tern is seam-allowing and guaranteed to perfectly. Do not fail to state size.

Remember that unbroken black very hard to wear next to the fac white or a becoming color should se arate the face and the black. Th exception is the striking blonde- brunette with vivid coloring.

Super Zinc-ed



WIRE FENCES

"Super-Zinced" Fences are protected against rust by an extra heavy and well bonded coating of zinc that will not crack or peel. The zinc is applied by our improved process which is the successful result of years of effort to produce better and more durable fences.

Columbia Fence

is made with the well known Columbia Hinge-Joint; its natural strength together with its "Super-Zinced" rust protection affords practically a permanent inclosure. It establishes a new standard of fence service and durability. All of our fences are now "Super-Zinced," yet *cost no more* than fences of ordinary galvanizing quality.

FREE—Send for Farmer's Handy Manual of account, crop record and memorandum pages, also catalogue describing our Columbia and Pittsburgh Perfect "Super-Zinced" Farm, Poultry and Lawn Fences.

FREE! To Farm Owners This Useful Vest Pocket Book

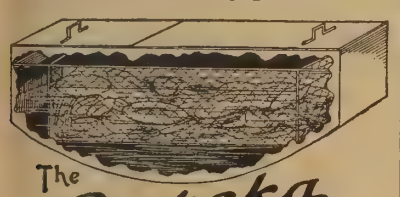
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725 Union Trust Bldg.
Pittsburgh, Pa.

Throw Away the Dish Pan

New invention makes possible the washing and wiping of dishes and cream separator parts in a minute.

Heat the water in the machine, put in the dishes and in a minute's time they can be taken out thoroughly clean and dry.

Send Ten Dollars today, without delay and a dishwasher will be sent to your door prepaid. Perfect delivery guaranteed.



The Eureka

THE EUREKA COMPANY
HAWARDEN IOWA



Pat. 7-2-07 & 9-10-18
ANTI-COW KICKER

Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H. Topeka, Kansas

HEAT Without Coal

Amazing invention does away with coal or wood. The Instant-Gas Oil Burner sets in firebox of any stove or furnace; burns 96% air and 4% oil. Gives three times the heat of coal, and cheaper. Better cooking and baking. Installed without damage to stove in five minutes—to furnace in an hour. Over 60,000 in use. Sold on money-back guarantee and 30-day free trial. Low introductory price to first users in locality. Write today for Free Book, "Scientific Oil Burning." Mention whether for stove or furnace. INTERNATIONAL HEATING CO.
Dept. 135-Y, 117 South 14th St. St. Louis, Mo.



AGENTS WANTED
We pay $60 a week. Write for free sample offer

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

ing to run it properly. Also that he was having all sorts of grief from having his chickens run over by passing cars.

One day he had a bright idea. He got his car and all his chickens into a rather small enclosure and then he spent the day charging at them, backing, turning, and charging again.

"Gives me good practice on the car," he said, "and then it teaches those derned chickens to look out for themselves."—LUCY THOMPSON.

Feeding the Family

New Department of National Dairy Exposition

The homemaker's interest and that of the dairy industry meet in the problems of feeding the family wisely for health and growth. In recognition of this fact, the National Dairy Exposition is this year organizing a Consumers' Department under the heading of Feeding the Family Exhibits, Contests, and Conference.

Prizes will be offered for the preparation of attractive wholesome food dishes, prepared from various milk products; for daily menus arranged for the family with growing children, and for the family whose men folks are engaged in active manual labor as is the farmer and the factory worker.

Conferences will be addressed by influential authorities on the problems of choice and preparation of foods for the family. Pre-natal feeding, food for the pre-school age, foods for the lunch box, and foods for mother and children who don't like milk are but a few of the problems that will be discussed in demonstrations and conferences.

The Milwaukee milk producers and distributors, Milwaukee ice cream manufacturers, Milwaukee County Guernsey milk producers, The National Evaporated Milk Association, and The American Bakers' Association will all have exhibits arranged for the interests of the homemaker. Demonstrations in the preparation of unusual and attractive dishes will be featured in practically all of these exhibits.

The U. S. Children's Bureau, The National Dairy Council, Wisconsin University, State, County, and City Health Departments and a score of educational agencies including school and welfare organizations will present those parts of their various activities which relate to diet, recognizing that any wise diet includes the use of dairy products.

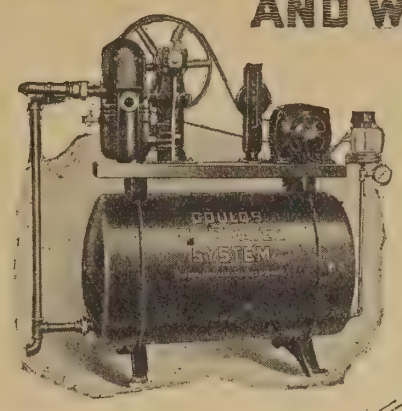
Those women readers of Hoard's Dairyman who find it possible to take a vacation and attend the Feeding the Family Exposition, September 27th to October 4th, will find a unique group of exhibits arranged for their particular service. Cattle breeders, dairy products manufacturers, go to such expositions to meet influential leaders and to see those things which will help them solve their daily problem. Here is an opportunity for the homemaker to find help and see interesting things intimately related to her problem of successfully feeding the family and reducing the number of undernourished children. "Skinny Kids" are pretty apt to be so because they don't eat wisely. Some of these exhibits will illustrate solutions of this perplexing problem.

H. E. VAN NORMAN.

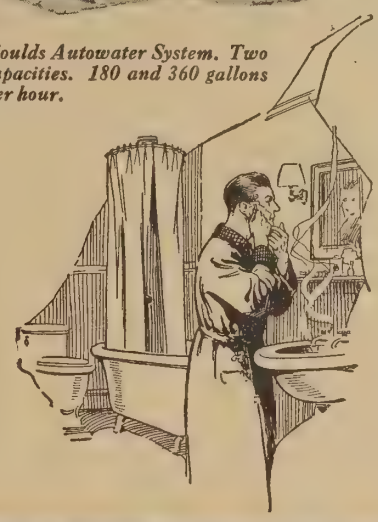
To make salted nuts shell nuts and place them in a pan. Salt and dot with butter. Place in hot oven. Stir occasionally until they are evenly browned.

Aunt Ada's Axioms: A real welcome is half the dinner.

GOULDS PUMPS AND WATER SYSTEMS



Goulds Autowater System. Two capacities. 180 and 360 gallons per hour.



Comfort—from Running Water

A Goulds Autowater system puts comfort into country life.

This simple and inexpensive water system brings every convenience to the bath, kitchen, laundry, garage and grounds that a city water supply can give. With it suburban homes, farms, summer cottages and camps can have running water every day, 24 hours a day, without lifting a finger.

The Autowater is an independent automatic electric driven unit, assembled and ready for use.

Every home and farm has its individual water problem. Bring yours to Goulds or to a Goulds dealer. Our advice is yours for the asking. It has saved money for thousands of customers.

Goulds Pumps and Water Systems are of many types, sizes and capacities, adapted to every demand for the home or farm.

Write for booklet giving details of our complete line of electric and engine driven pumps and water systems for every need.

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Why eat bread made from ordinary flour when for only a few cents more you can have OCCIDENT-made bread?

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OCCIDENT makes better bread, biscuits, cake and pastry. Order this better flour for your next baking day.

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ONLY 25c
For Complete Stove
Including handy extinguisher and Can of Sterno Canned Heat

Cook with it, heat water, warm baby's milk. Heat your curling iron with it. Equally useful for hot water for shaving, making tea, coffee, ironing, motoring, etc. Hundreds of uses. This handy sheet steel folding stove weighs only 8 ounces. Folds flat. Gives heat instantly when needed.

Send this ad and 25c to the Sterno Corporation, 9 East 37th Street, New York City, Dept. 183, and we will send you this stove prepaid.

Sterno Canned Heat

GOLD CORN HARVESTER Worth its weight in gold to every farmer raising corn, cane and kaffir in rows. Only $25 with bundle tying attachment. Testimonials from pleased customers in every state. FREE catalog showing pictures of Harvester. PROCESS MFG. CORP., SALINA, KAN.

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



THE H. H. MILLER INDUSTRIES CO., CANTON, OHIO
successors to
Chas. Skidd Mfg. Co.
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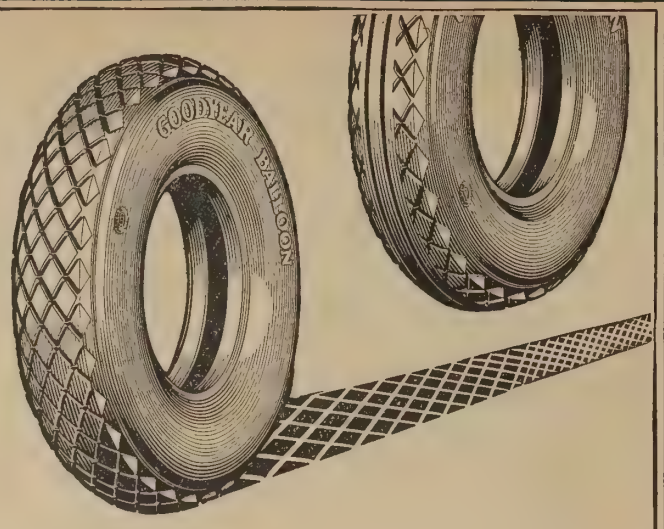
G-D Sanitary Seamless Strainers



Improved filter removes dirt. Solid drawn steel. Easy to keep sweet and clean Full twelve-quart capacity. Will last a lifetime. "Send no money Pay $2.00 and postage on receipt. *Money back if not satisfied.* Write for our free Dairymen's Supply Catalog.

GOWING-DIETRICH CO., Inc.
205 W. Water St. Syracuse, N. Y.

Will Cut Your Bacteria Count



The whole comfort-principle of the balloon tire depends on the flexibility of the tire under shock. To buttress that flexibility with superlative endurance, Goodyear developed the sensational new cord fabric SUPERTWIST. The superiority of SUPERTWIST, *used only by Goodyear,* lies in its greater elasticity: it far *o-u-t-s-t-r-e-t-c-h-e-s* the breaking point of standard cord fabric. Hence SUPERTWIST protects Goodyear Balloon Tires against stone bruise and rupture, while delivering you maximum comfort and riding ease.

Goodyear Means Good Wear

GOODYEAR

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Feed NOW for Next Winter's Milk!

Pasture alone means underfed cows
Grain feeding with pasture pays!

With 2% Bone—Building Mineral

Grass is practically hay with water in it. No farmer would try to keep cows on moist hay all winter. Yet, without grain that is about all the cow gets in summer. And that means scanty milk flows next winter. Stop it! A small ration of International Special Dairy Feed in addition to grass will work wonders. It will maintain the milk flow and send the cows to the barn this fall in tip-top condition. Try it.

International Special Dairy Feed

"Twenty extra quarts from every sack"

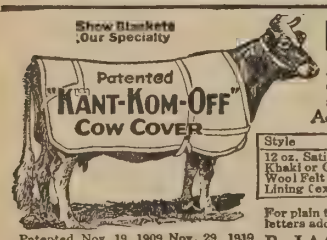
Cow testing authorities and leading dairymen everywhere know the value of summer feeding. One farmer wrote that he increased his milk production 40% through summer feeding. If you want a much larger milk check next winter invest a little money in International Special Dairy Feed *now*. Thousands of farmers—men just as smart as you—feed International Special Dairy Feed and get 20 extra quarts of milk from every sack. They do it and we *guarantee* it.

Buy Now! If your cows have been on pasture alone or pasture and ordinary feed, then start them on International Special Dairy right away. The results will startle you. Dealers nearly everywhere sell this quality feed. If yours does not, write us. Milk means money. Get more milk! Use International Special Dairy Feed.

INTERNATIONAL SUGAR FEED CO., Minneapolis, Minn.

Mills at Minneapolis and Memphis *Live Agents Wanted*

Show Blankets Our Specialty



Patented Nov. 19, 1909 Nov. 29, 1919

COW BLANKETS

KANT-KOM-OFF Blankets fit perfectly, cover the cow properly and can't be rubbed or kicked off. 50,000 in use for conditioning, exhibiting, shipping, testing and protecting against cold and disease. Order from Adv. or send for samples, illustrated booklet and special quantity discounts.

Style	To 48 in.	50-68 in.	70 in. up	Discounts	FITZ-ALL Show Halters Black or Russet $3.65 each
12 oz. Satin Finish Burlap	$2.90	$ 3.30	$ 4.40	1 to 5 Net	
Khaki or Gray Duck	3.80	4.70	6.20	6 to 15-5%	
Wool Felt (all colors)	9.80	11.50	14.50	16 or	
Lining (extra each)	1.60	2.00	3.30	over 10%	

For plain trim add 60c per blanket; wool felt $1.75; on wool felt blankets $1.40. For stencilled letters add 3c per letter; for sewed felt, 15c for each three in. letter, 18c for four in. letter.

R. LAACKE COMPANY, 553 Third St., MILWAUKEE, WIS.

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Kimble's Views Criticised

HOARD'S DAIRYMAN:—The article by Howard Kimble of Minnesota contains much good information. It shows he is a thinker on farm problems as well as on those things affecting directly and indirectly the farmers' income. He, like many other writers, cites that there is a disparity in prices between what the farmer sells and what he purchases, but he offers no definite solution. It would have appealed to me more if he had condemned the reclamation of much of our land when we are already producing more than the farmers can sell at reasonable prices. Most writers seem to be afraid to state that we have an overproduction and are going all around Robin Hood's barn to search for something, they know not what, to save the farmer when he produces too much. If the farmers of this country knew cost of production there would be little or no danger of overproduction.

The boll weevil has been a larger factor in raising the price of cotton in the South than all other forces combined. He has cut the cotton crops beyond the demand of the world and cotton is selling at good prices.

It is not my idea that low production per acre is the solution of the farmer's problem. Whatever acres we operate, we should aim to get good production but much of our land that has been brought under cultivation in recent years would have been better left for the future generations to open up. The boll weevil does demonstrate, however, that when there is a shortage of production the prices rise. Let us nail this as being one of the factors in solving the farmer's problem.

I do not know what Congress can do to help the farmers when they will settle upon land which is unprofitable to operate, or when they grow more crops than the market will absorb at a reasonable price.

Mr. Kimble makes one or two statements which, it seems to me, are not wholly accurate. He says the railroads are guaranteed a profit. Who guarantees this profit? If I am correctly informed, several railroads have never paid any dividends to their stockholders, and some of the largest railroads have paid no dividends in the past eight or ten years. If the railroads are guaranteed a profit, how does it come that so many roads are not paying their stockholders any dividends?

I do not know whether it is true or not that many of the manufacturers of farm machinery are selling their machinery cheaper abroad than at home. If it is true, it may be an advantage to the farmers of this country for it is quite possible that the machinery which they do buy is sold at a lower price because the factories have run full capacity and the European market has taken care of the surplus. Moreover, keeping the laborers in these institutions constantly employed causes them to buy more farm products. It seems to me that we shouldn't criticize this when our machinery is not costing us relatively as much as it did in 1913.

I feel that one of the things which co-operative enterprises could do that would help agriculture is to handle the surplus farm products in the same way that manufacturers of machinery handle their surplus products. It doesn't seem to me wise to ask the government to do this but it is good business for farm co-operative enterprises to market the surplus farm products in foreign countries.

Illinois. R. T. S.

Two Words Tell it All

HOARD'S DAIRYMAN:—Seeing another teat puller in the field who seems dissatisfied with fellow dairymen who see fit to sell their products co-operatively, thereby becoming an advantage to him, he seems anxious to convince them of their folly, to induce them to reform, and come back with him and become "just a New York State farmer". Go back to the days when we were all independent teat pullers, who walked alone, signed a contract to deliver milk to the condensing company for 80 cents per 100 lbs. in June, advancing gradually to the summit of $1.25.

Sixty or seventy years ago wage earners received 75c to $1.25 per day also, and on public work were not always sure of their pay. I need not state the contract that has developed to present time. Neither is it necessary to dwell upon the evolutionary forces which have wrought this change in favor of the laborer. Organization, co-operation—two words—tell it all.

Employers of labor pay larger salaries to strike breakers than union men demand in numberless cases but organized labor has perfected their association to such a degree that the "scab" is largely eliminated.

Let Mr. T. P. change business and undertake to work independently among the labor poolers, then report the boast of larger remuneration. I'd advise his working in or near a hospital.

Well! Well! Now you do indeed speak as a brother. Indeed, on this ground all men are brothers. It is a pity about mistakes. Were it not for mistakes co-operative marketing would have swept all other methods out of existence far more completely than the fondest dreamer ever dreamed. Another great handicap is the wolf will creep into the fold. However, no advance has ever been made without being handicapped by mistakes, yet union labor is a success (sometimes a howling one) despite many mistakes to date. The shepherds did not quit because of the wolf, but increased their vigilance. In too many enterprises good business has failed because of incompetent managers but I believe more often by denying men who have only their own interests to further. Labor has overcome these obstacles; why cannot farmers? Above all, put none but men of proven integrity on guard.

Now brother T. P., if you do not want to progress, why be a bawler? It is written "Better cure one ill than rail at a thousand." Again, and in conclusion, why not sign your own name when you write to us or better yet have your picture in the paper. We might all get a better idea of what's the matter with dairy business down there than from anything you can write.

Wisconsin. JOHN O'CONNOR.

An old Spanish proverb says that "Hurry is the devil". Keeping serene will go a long way toward preventing fatigue, and will make it possible to accomplish more than could be done "on the run".

The Third Milking

HOARD'S DAIRYMAN:—Hoping it may be of interest to the average Hoard's Dairyman reader, I am giving results of three milkings a day, compared with two milkings, on common cows, such as the man starting in to dairy on borrowed capital is apt to have. Bear in mind that these results represent ordinary herd conditions, and were obtained by a man farming 120 acres alone, and handling a dairy of eight to eleven cows.

Since I was farming on shares, such a project as introducing an extra milking a day meant that I had to furnish the extra labor myself, and got for it only half the additional income. But whether it paid or will pay the average farmer is a question to be settled individually. The length of time cows have been milking, ratio between price of feeds and milk, and price and adaptability of labor, all are factors directly affecting the advisability of this winter practice.

Late in October, 1921, I bought eight cows. These cows cost me $30 each less than good grade cows were selling for at that time. But, as I had my own testing outfit and milk scales, I planned to take a chance on these culls, and kick out the boarders. They fooled me by paying for themselves with their first 3½ months' milk. Five of them were milking by Nov. 21 and results from these are all I have included in my first computation. The other three that freshened during the winter profited more by the extra milking than these five, for they had the advantage of it from the day they calved, for some of the five had been fresh over a month when the extra milking was introduced.

My milking hours were 4:30 a. m., 12:30 m., and 8:00 p. m. When on three milkings, I fed silage and grain immediately after each milking. I fed the same amount each 24 hours that they had received before, but divided it into three parts. Then, after the cows made a gain of several pounds of milk each, I increased their grain in proportion to the increased milk flow. Their feed consisted of fair corn silage, good clover hay, ground corn and oats, bran, and oil meal, in proportions to suit the needs of each individual. The average mixture of grain was 4 parts corn and cob meal, 3 parts ground oats, 1.5 parts bran, and .75 part oil meal, one pound of grain to each 3.5 lbs. of milk. Three light feeds of silage and grain each day instead of two heavy ones, placed a more even demand on their digestion, in the same manner that three lighter milkings stimulated the milk producing organs to more even natural conditions. Calves running with cows in a native or wild state nurse frequently. Our taking away a veal calf from its mother's side and putting her at once on two milkings a day is a rude shock to her udder capacity.

On twice a day milking during the last of November the five cows then milking produced an average of 35.1 lbs. milk each daily. On three times a day milking a week later they produced an average of 39.2, while three months later they were still producing 36.3 lbs. milk daily. They were then changed to twice a day milking and inside of a week had dropped to 31.6 lbs. The following table shows the variation for each cow:

Number cows	Nov. 30 two milkings	Dec. 6 three milkings	March 3 three milkings	March 10 two milkings
	lbs.	lbs.	lbs.	lbs.
1	25.3	27.2	24.5	22.3
2	23.4	26.9	26.0	24.0
3	35.5	41.5	41.0	35.0
4	51.5	56.5	52.0	44.0
5	39.6	44.0	38.0	32.8
Totals	175.3	196.1	181.5	158.1

The pounds of milk in each column of my table represent the average production for a three-day period on my milk-sheet. The totals tell the story, for it is the average of averages that counts. A gain of 21 lbs. of milk a day on five cows did not seem like so much in one day, but it became accumulative in this way. After my spring work was on and pasture time came, these cows milked like fresh cows after they had been in calf an average of 6 months and were all with calf again. Their sustained production all through the rest of that lactation period, the development of feeding and udder capacity, and their general good health brought as large an indirect or subsequent return from the extra milking as the additional milk obtained at the time.

In January, 1924, I started the extra milking again on four cows that had previously averaged 40 lbs. each on twice a day milking. After being milked three times daily for ten days these cows raised their average production to 44.3 lbs. The milk strike came on then and I discontinued the extra milking.

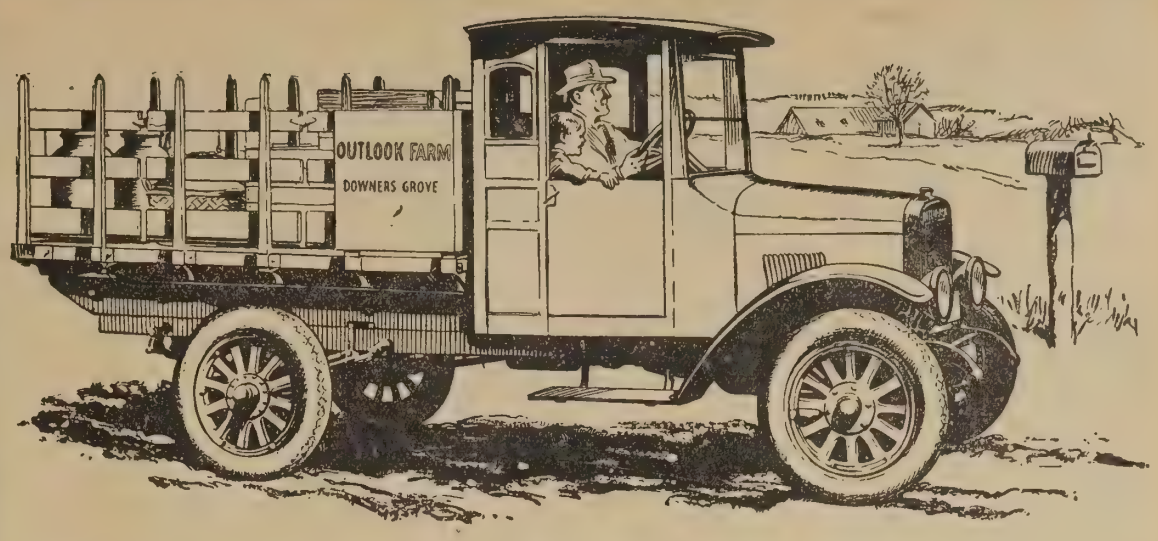
My trials convince me that three times a day milking is a good way to develop young cows and is practical when one has several good cows freshening close together in the late fall or early winter.

Illinois. LUMAN W. COLTON.

World's Biggest Dairy Cow

The "world's largest dairy cow", Wisconsin Fobes 5th, will be one of the prize exhibits at the National Dairy Show when it opens its doors in Milwaukee, Wis., on Sept. 27. This animal is a "tonner" which tips the beam at 2,240 lbs. She is one of the attractions at the Murphy Farms, owned by E. N. Murphy of Wisconsin. The big Holstein has a milk record of 25,617.20 lbs., with a fat mark of 863.2 lbs. in 305 days. Several of her progeny have set marks as sires.

Uncle Ab says he's generally found that silence is better than what some folks call "bein' real frank".



FARM HAULING *by* MOTOR TRUCK

FARMERS in every section are turning their hauling over to good motor trucks. There are plenty of practical reasons for the change.

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The Speed Truck shown above carries a ton load easily and quickly. It is equipped with electric lights and starter, power tire pump, truck cord tires; special farm bodies available for your particular needs. The Speed Truck makes an excellent all-purpose truck for the average farmer. Where larger loads must be hauled, heavy-duty Internationals may be had for loads up to 10,000 pounds [max. cap.]. Let us tell you how conveniently you can secure an International Motor Truck. A letter will bring complete information.

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INTERNATIONAL HARVESTER COMPANY
606 So. Michigan Ave. OF AMERICA (Incorporated) **Chicago, Ill.**
103 direct Company Branches serve International Motor Truck owners

We Have Revised and Improved Our

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HERD BOOK

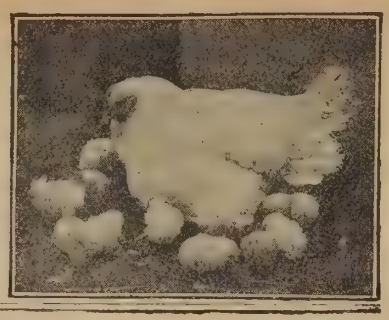
The new editions contain numbered and lined pages; and have room for more records and services. We sold hundreds of these leather bound books last year and feel confident that with the small improvements the book will be even more popular. Book will accommodate herd of one hundred head. Complete with pages for full services, gestation tables, index, etc.

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Fort Atkinson Wisconsin

COW BLANKETS HALTERS
Cheap only in price. Send for price lists. Kahki duck, $3.00, $4.00, $5.20, each, postpaid. Guarantee to satisfy. Subject to your inspection. Get at least one. You'll be pleasantly surprised.
BLUE RIBBON BLANKET CO., WAUWATOSA, WIS.

POULTRY On The DAIRY FARM



J. B. HAYES

Ventilation

The gable roof, straw loft house has a number of advantages that have made it a successful type of building to operate under either hot or cold conditions. The construction is relatively cheap and the pack is of untold benefit in giving good ventilation during the winter and keeping the house cooler during the summer. It has been claimed that this building is ten degrees cooler during the summer than the shed roof.

In this particular house there is a front and rear elevation of 8 feet with the ridge of the roof running east and west. A south elevation of the windows permits the distribution of sunlight to the rear of the house and allows the caretaker to work in comfort.

Since a uniform temperature is desired, it is necessary to increase the insulation over the roosting section. With this idea a false ceiling of 1x4-inch stuff is made that drops to five feet at the rear. This ceiling has about two-inch spaces between the strips to permit the air to move upward readily. Over this ceiling a heavy layer of straw is placed. With the sloping ceiling, there is a three-foot additional amount of straw over the roosting section that conserves the warmth for the flock while roosting.

With the bafflers on the south side, between the windows, exchange of air is allowed. During a cold spell frost will collect on the roof boards but is not a disadvantage because of the heavy straw pack insulation which separates it from the house. On a mild day when thawing is expected, the wooden door on either end of the gable should be opened. This acts as a force draft that will remove the moisture, prevent it dripping on the straw, and will promote dryness.

Dust will collect in the straw, it is true, but is a minor fault if the house will operate properly in other respects. No fear of mites need be anticipated when the roosts and nests are properly treated each year. A yearly change of straw is not necessary for that same supply can remain year after year.

About one square foot of glass is required for every 10 square feet of floor space. In most cases all of this glass is placed on the south side but many people, in addition, place small sash along the north side below the dropping board. This arrangement will prevent the litter collecting in this section and will give a more uniform distribution, for the hens face toward the light when scratching. The windows will also help in giving better summer ventilation but should be covered with storm sash during the winter. As noted in the plans, the sash are placed about two and one-half feet from the floor and continue up to about the plate. An abundance of sunshine over the entire floor is assured in this manner.

The windows should be hinged so that they can be opened during the day when additional ventilation is desired. It is almost impossible to properly ventilate if the windows are set into the frame permanently. During the summer both the windows and bafflers should be removed. Inch mesh wire over the outside of the window frames will prevent the entrance of sparrows.

The lath baffler that is recommended is of ordinary building lath construction. A frame that will fit the space allowed between the windows is made and across this frame lath are nailed with a three-eighth inch space between the lath. After this row is completed a lath is nailed up and down at each side and a second row of lath nailed across. The joints are broken so that the center of the upper lath is opposite the center of the space allowed between the lower layer of lath. This arrangement allows air to enter but breaks the draft. With this combination of fresh air and open windows during the warmest part of the day, one can retain a fairly uniform temperature.

In some of the colder sections of the state it has been found advisable to use a building paper frame on the inside of this baffler during sudden, severe cold spells to decrease the ventilation. One must be careful about the distance that is allowed between the lath and between the layers as this proportion, which is about the thickness of a lath, controls the rate at which the air enters. In the cases where too much space is allowed the house cooled down too rapidly and also allowed a draft on the birds.

When the windows are opened for about an hour during the middle of the day, the house has an excellent opportunity to thoroughly air out, prevents a sudden raising temperature through the glass, and when the windows are closed the lath baffler allows a slow movement of air into the house. At this time it does not seem to be so much of a question of temperature in the house as it does a uniform temperature to which the birds can become accustomed and feel comfortable.

Bulletins of the Week

Value of Mineral Supplements in Swine Feeding, by J. B. Rice and H. H. Mitchell. Bulletin 250, Illinois Experiment Station, Urbana, Ill.

Raising Dairy Calves, by E. Weaver, J. M. Shaw, and F. Ely. Circular 91, Iowa Experiment Station, Ames, Iowa.

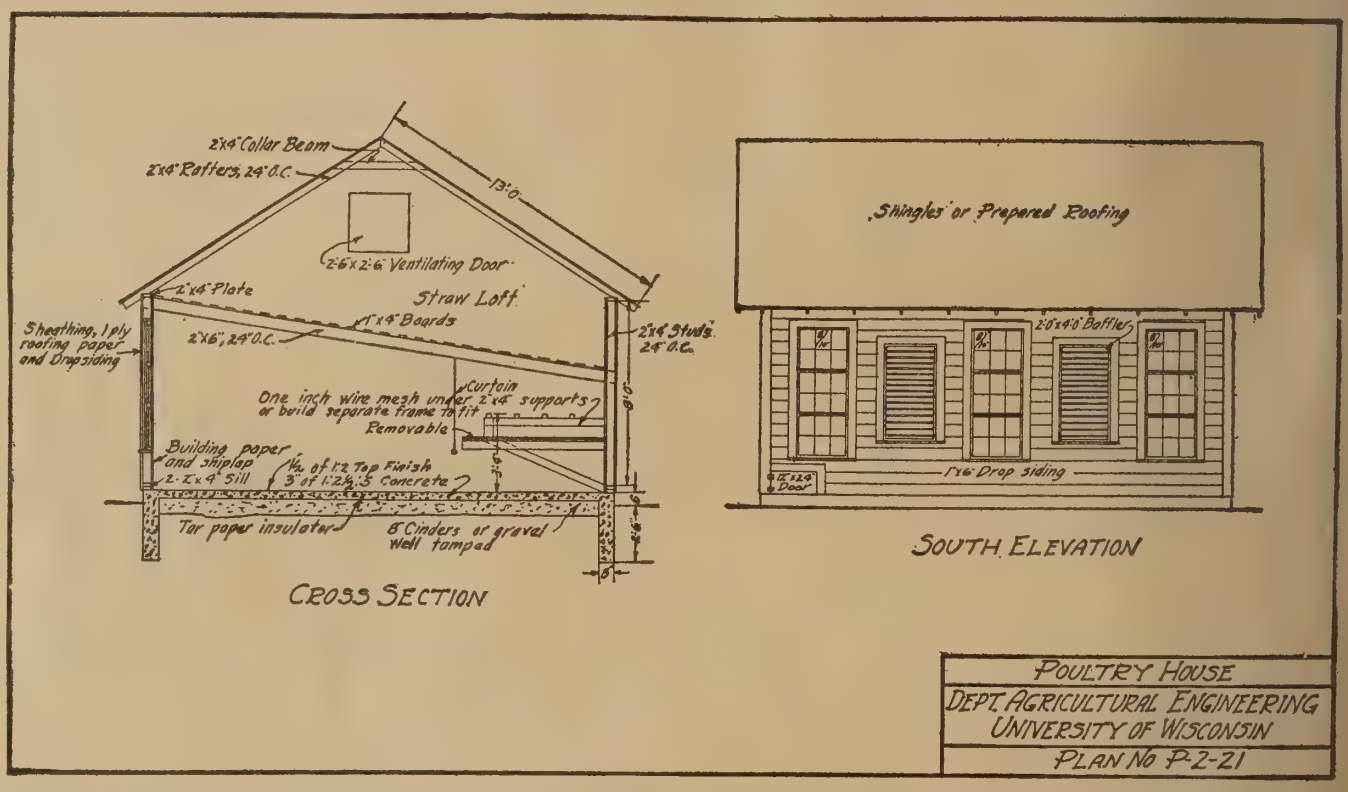
Vitamins in Live Stock Feeding, by H. H. Mitchell and M. H. Keith. Circular 282, Illinois Experiment Station, Urbana, Ill.

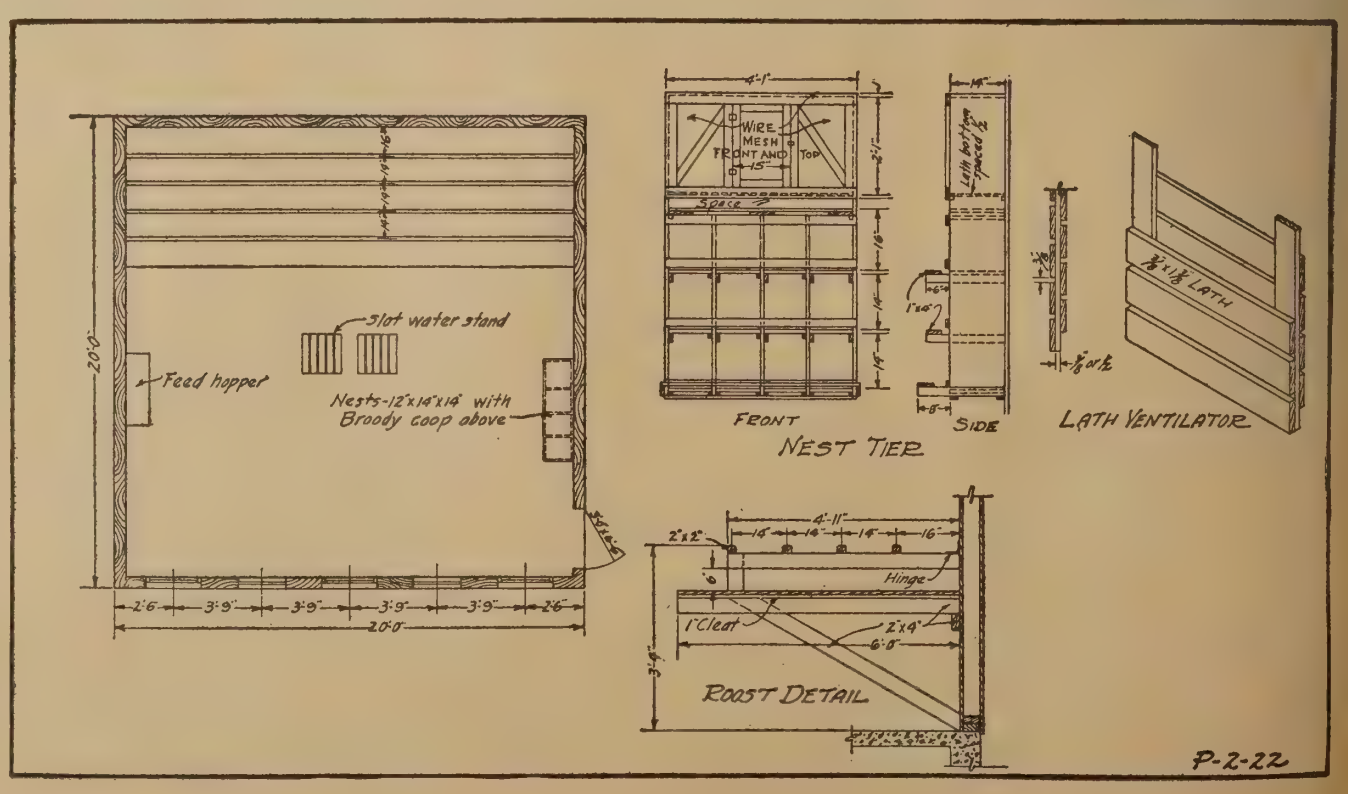
Principles of Dairy Barn Ventilation, by M. A. R. Kelley. Farmers' Bulletin 1393, U. S. Dept. of Agr., Washington, D. C.

Soy Bean Culture, by T. K. Wolfe. Bulletin 235, Virginia Exp. Sta., Blacksburg, Va.

Market Eggs, by H. M. Lackie. Bulletin 3, Wisconsin Dept. of Markets, Madison, Wis.

California Farm Tenancy and Methods of Leasing, by R. L. Adams. Circular 272, California Exp. Sta., Berkeley, Calif.





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CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

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Lake Villa, Illinois

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; **ALSO REGISTERED JERSEY BULL CALF.**

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

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Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.

Federal Accredited Herd No. 72406

W. R. KENAN, JR., Owner. T. E. GROW, Supt.

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Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

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Pure-bred or grade cattle for sale. Can quote prices on individuals or carloads. R. of M. and Cow Testing Association records.

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Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.

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2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.

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Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write

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Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Colic

Have a large mare I have had for several years that has what the veterinarian I employ says is spasmodic colic quite often. She has come out of it all right thus far though attacks are more severe. Has had two attacks within six weeks. Is there any way to prevent it? Feed nothing but good oats,, oil meal, and bran, and bright hay.

Cantreville, Tenn. N. H.

Omit oil meal from the ration and feed a mixture of crushed oats and one-ninth part of wheat bran by weight. Give it from a large shallow box to prevent bolting. Allow access to rock salt or block salt. One pound of the grain mixture for each 100 lbs. of body weight, given in 3 feeds, will suffice as a day's ration. Allow a similar amount of hay, but give most of it in the evening and none at noon when the mare has to work hard. Have her teeth put in order by a veterinarian. Make no sudden changes of feed and let the mare cool and rest before feeding when hot and tired.

Falling of Hair

What should cause sows to lose their hair after weaning their pigs? Apparently there is nothing else wrong with them. They are running in a pasture of sweet clover and are being fed skimmilk with ground wheat.

Brooks, Mont. E. A. L.

We think it likely that wetting in the rank, green crop and then scalding in the hot sun may be the cause of falling of hair and soreness of the skin. Bathing the skin with fresh buttermilk once or twice daily is effective when scalding starts. For a time better keep the sows out of the sweet clover field. Rape is more likely to induce sun-scald. Also stop feeding ground wheat and substitute wheat middlings, ground barley, and a little oil meal. Keep the sows out of dirty or stagnant water and mud wallows, but allow bathing in clean water.

Cause of Lice

What causes lice on cattle?

Hartland, Wis. E. J. M.

Cattle contract lice from coming in contact with an infested animal or occupying a stable that has been contaminated by such an animal. The vermin are most prevalent and troublesome during the winter season. Isolate affected cattle and spray or dip them with a solution of coal tar dip made and used according to directions given by the manufacturer or dust infested parts freely with powdered sabadilla, blanket the animal, and brush clean out of doors 3 or 4 hours later. Repeat the application when seen to be necessary. Cleanse, disinfect, and whitewash the stables.

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INCORPORATED

Breeders of—
HIGHEST QUALITY REGISTERED

SILVER BLACK FOXES

Fully Guaranteed Breeding Stock for Sale



It will pay you to investigate this wonderful new industry. We solicit your consideration.

DR. O. STADER, Secretary, Oconomowoc, Wis.
Members of the National & Wis. Fox Breeders' Ass'ns.



Raleigh's Torono's Meme 544207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood

We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.

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YOU CAN'T CUT OUT A BOG SPAVIN OR THOROUGHPIN but you can clean them off promptly with



ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

and you work the horse same time. **Does not blister** or remove the hair. $2.50 per bottle, delivered. Will tell you more if you write. **Book 4 R free.** ABSORBINE, JR., the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Wens, Cysts Allays pain quickly. Price $1.25 a bottle at druggists or delivered. Made in the U. S. A. by

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Notice how this blanket is reinforced. Heavy straps and patented 4-point anchorage give it extra strength at points of strain where ordinary blankets quickly tear out. Made of genuine khaki duck. Rust proof, hold-tight fasteners. Outwears other blankets 2 to 1. First choice of breeders everywhere. Always shows up stock to advantage.

***Free*—we will send one on approval**

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Try a sample Kow Kloz on one of your animals. Use it for 10 days under actual conditions. If satisfied, pay for it. If not, send it back. Write today for full information and measure blank so we can send your sample.

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An excellent remedy for sprains, bruises, cuts, burns, sore throat, muscular and inflammatory rheumatism, sciatica and lumbago. The Lawrence-Williams Company, Cleveland, Ohio.

GOMBAULT'S *Caustic* **BALSAM**

Bags make good toweling



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Beware of salt that hardens! It causes "salt crust"—spoils meat cure. Colonial Special Farmer's Salt wont harden. Its soft, porous, irregular shaped flakes wont cement together in wasteful lumps.

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Salt crust is simply undissolved salt. Colonial Special Farmer's Salt doesn't form salt crust because it dissolves completely. In dry or brine curing no crust can form to stop the cure.

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The action of salt depends on its dissolving completely. Each flake of Colonial Special Farmer's Salt dissolves instantly and completely. The cure penetrates evenly to the very heart of the meat.

***for* stock feeding**

Colonial Special Farmer's Salt is the best salt. Mixes thoroughly with dry feeds and its soft, porous flakes wont sift out. Keep an additional supply before stock at all times. It never causes sore tongues.

Write for our book, "New Truth About Salt."

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Colonial *Special Farmer's* **Salt**

"There's a Colonial Salt for every purpose"

Seitz Ayrshire Wins Silver Medal

Cavalier's Messalliance owned by Adam Seitz & Sons of Wisconsin has just completed a Roll of Honor record of 11,895 lbs. milk, 421.70 lbs. fat in 300 days; carrying a living calf 184 days of this period. This makes her one of the silver medal cows of the breed, as well as Roll of Honor senior two-year-old champion of the Badger State.

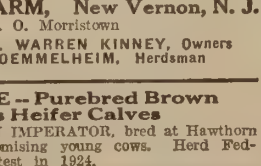
In the 365-day division, for the Advanced Registry, she is credited with the good yield of 12,943 lbs. milk, 471.07 lbs. fat, thereby winning the class championship in this division for the State.—Ayrshire Breeders' Association.

The grammar lesson proceeded smoothly enough until the teacher asked a small boy what kind of a noun "trousers" was.

"It's an uncommon noun," was the reply, "because it's singular at the top and plural at the bottom."—Good Hardware.

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HAMPSHIRES



Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.

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Breed Brown Swiss Cattle

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N
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A. E. BOWER, Pres., Union Stock Yds., Cleveland, Ohio

ANNOUNCEMENT

KINNELON FARMS, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name, ownership and location.

The entire herd was moved during the month of August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.

The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.

Herd fully accredited, Certificate number 65301

LEES' HILL FARM, New Vernon, N. J.
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MR. AND MRS. WARREN KINNEY, Owners
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FOR SALE -- Purebred Brown Swiss Heifer Calves

SIRE—HAWTHORN IMPERATOR, bred at Hawthorn Farms. Dams—Promising young cows. Herd Federal tested—Clean test in 1924.

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Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

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Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

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Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.

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Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

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the property of MR. A. A. GILLETTE, at LOCUST GROVE FARM, LIMA, N. Y. (19 miles from Rochester)

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The offering is headed by MARSHIE'S MOONLIGHT MAY KING 56887, a son of Marshie D. V. 67481 (A. R. 6858), 915.05 lbs. fat; 2nd cow Class B.

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We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

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We Offer For Sale Young Bulls, Cows and Heifers

I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.

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Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

Hillswold Farm Guernseys

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Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

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Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO

For prices and information, write

E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

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—Cherub Guernseys—

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

CHAS. L. HILL & SON
Rosendale Wisconsin

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

JEFFERSON COUNTY GUERNSEYS

combine type and production. We offer high grade and pure-bred cows, heifers and calves of all ages from clean, healthy herds free from T. B. Buy that bull needed for fall service now.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.,
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Midsummer price reduction sale of Registered Guernsey males, calves and yearlings, May Rose breeding, mostly from A. R. cows. Federal Accredited herd.

RICHARD F. KLEMM, Baraboo, Wis.

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AT THE FAIR GROUNDS

SEPT. 11 --- DASSEL, MINN.

45 HIGH GRADES, 3 PUREBREDS

This is the first of our annual sales. All stock included is of the highest quality, selected from our best herds.

Meeker Co. was the first Minnesota county to do area testing.

For more information write

MEEKER CO. GUERNSEY BREEDERS' ASS'N,
A. B. Rayburn, Sale Mgr., DASSEL, MINN.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

10 Registered Cows 10

Bred to Langwater Africander

White Farms offer for sale ten good pure-bred Guernsey cows from three to six years old, bred to Langwater Africander 57121.

WHITE FARMS, CAIRO, N. Y.

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

CORIUM FARM GUERNSEYS

Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

GUERNSEYS and HOLSTEINS, For Sale

We have from 100 to 500 high grade and registered cows and heifers for sale at all times. Also choice registered bulls of each breed. These cattle come from the best herds in western Wisconsin. They are selected from the largest federal tested territory in the state and are assembled in the largest and most sanitary sale barn in the northwest.

West Salem is on the main line of the C. M. & St. P. and of the C. &. N. W.

Write us or better still come and select just what you want.

O. G. CLARK & CO., - - - - WEST SALEM, WISCONSIN

50 GRADE HEIFERS---Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS

EL JANE GUERNSEYS

ARCADIA, MISSOURI
(85 miles south of St. Louis)

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

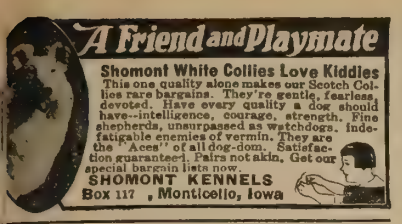
BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.

Federal Accredited EL JANE FARMS, - Arcadia, Missouri

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa



A Friend and Playmate

Shomont White Collies Love Kiddies

This one quality alone makes our Scotch Collies rare bargains. They're gentle, fearless, devoted. Have every quality a dog should have--intelligence, courage, strength. Fine shepherds, unsurpassed as watchdogs. Indefatigable enemies of vermin. They are the "Aces" of all dog-dom. Satisfaction guaranteed. Pairs not akin. Get our special bargain lists now.

SHOMONT KENNELS
Box 117 , Monticello, Iowa

HOLSTEINS

French Brothers Sale!

REGISTERED 55 HOLSTEINS

WEDNESDAY, SEPT. 17th, 1924

SHIPMAN, ILLINOIS

A young herd composed mostly of rich Ormsby breeding. The entire herd will be sold.

There will be May Bower Korndyke. Butter 1 yr, 911 lbs., milk 24,157 lbs. Her bred daughter, sired by our great Ormsby bull, King Chloe Hengerveld Ormsby, whose sire is the $65,000 41st, and whose dam is Chloe Pietertje Ormsby, with 1175 lbs. butter 1 yr., and the youngest cow of the breed to have 3 records of 1000 lbs. There will be many daughters and granddaughters of the great sire. Some excellent young bulls "Ormsby bred" including a young son of May Bower Korndyke by King Chloe Hengerveld Ormsby.

Sold subject to the usual 60-day retest privileges.

Write for Catalog

FRENCH BROS., Shipman, Illinois

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

D. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of 28-lb. cow with a year record of 970 lbs. born in 28. Write for prices and pedigrees.
Herd under federal supervision.
L. BINGHAM, Arlington Heights, Ill.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N.Y.

36-lb. Breeding

Sick of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Also younger calves offered also.
RICHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

Buy HOLSTEINS in JEFFERSON CO.

100 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
W. Anthes, Secretary, Jefferson, Wisconsin

CRYSTAL STOCK FARM offers choice, high-grade Holstein heifer calves at $17. Pure-bred bull calves, $25 and up. Crated f. o. b. our station. High-grade Holstein Springers, carlots or less, pure-bred cows and heifers at farmers' prices. Before you place your order write
H. C. BOLGER, WATERLOO, WISCONSIN.



MEADOW HOLM ONA HARTOG KING
Sire of 2 A. R. O. daughters. He has some promising young daughters in our herd, several of them winners at the "Cattle Congress" this year.

Iowana Farms' Senior Herd Sire

MAPLECREST PONTIAC HARTOG 62178.
38 A. R. O. daughters.
One 940-lb. Jr. 2-year-old; one 900-lb. Jr. 3-year-old; two 800-lb. Sr. 3-year-olds.

ONA CLOTHILDE DE KOL 70349.
Milk 672.80 lbs. in 7 days.
Butter, 26.45 lbs. in 7 days.
Milk, 25019.30 lbs. in 365 days.
Butter, 1100.61 lbs. in 365 days.
Four A. R. O. daughters.

PONTIAC AAGGIE KORNDYKE 38291, 68 A. R. O. daughters, 5 with over 1100 lbs. in a year.

BURTON HIGHLAWN 2d's HARTOG 70231.
Milk, 577.5 lbs. in 7 days.
Butter, 30.14 lbs. in 7 days.
Five A. R. O. daughters.

CHESTERLAND MUTUAL PAUL DE KOL 28679, 7 A. R. O. daughters.

ONA CLOTHILDE 57534, Two A. R. O. daughters.

PONTIAC KORNDYKE 25982, 153 A. R. O. daut.
PONTIAC AAGGIE 5343?, Milk 423 butter 20.65 7 da.

CLARION VELTHIUS 31072, 5 A. R. O. daughters.

BURTON HIGHLAWN 2D, 63235, 12 yr. 10 mos. 5 da. milk 446.10 but. 20.58 7 d.

DE KOL 2d's MUTUAL Paul 25700, 50 A. R. O. daut's.

KOOKEE 18290, 1 A. R. O. daughter.

JESSE JAMES DE DIKKERT 26151 1 A. R. O. d.
ONA BERYL 50040.

He is being bred to daughters and granddaughters of Sir Johanna Fayne and of Oak De Kol Ollie Homestead. We have a few of his good sons for sale.

IOWANA FARMS Davenport, Iowa

Before You Buy A Bull!

Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms
(In Waukesha County)
F. J. Southcott, Manager, Dousman, Wis.
Clean herd under State and Federal Supervision

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

Walcowis Farms

OFFER—

Desirable grandsons of Iowana Sir Ollie, sired by Sir Ollie Mooie Watson and North Star Gift Champion. Dams have records up to 32 lbs., also good year records. Write or visit us.

WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wisconsin.

For Sale

Choice Holsteins and Guernseys. 300 head, all ages. Four large farm herds to select from. Milkers and springers at reasonable prices.

WHITEWATER STOCK FARM
A. M. Hanson, Prop. Whitewater, Wis.

GRADE or PURE-BRED

HOLSTEINS

ALL AGES—ANY NUMBER

We can supply good ones at reasonable prices whether you want 1 or a carload.
Dane County Holstein Breeders' Association
Arthur C. Alling, Secy., Oregon, Wisconsin.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.
DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
N. T. GILL, Sec'y., Reedsburg, Wis.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

65 REGISTERED Holsteins

Write for Catalog

HOME FARM HOLSTEINS To be Sold Oct. 14, 1924

At the Farm, Chapin, Iowa

W. B. BARNEY & SONS, Chapin, Iowa

Bargains in Registered HOLSTEIN BULLS--- all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.

Hargrove & Arnold, Norwalk, Ia.

200 Carloads of Holsteins

is our motto for this year. We can supply you with as many as you want. Carload lots our specialty. Fine selection, courteous service, and reasonable prices. Less than one-half of one per cent T. B. Home of the World's Greatest Bull Association.

LIVINGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
Burr J. Hoover, Secretary Howell, Michigan

305-DAY RECORDS

Michigan State Herds now own thirty cows with 305-day records and have a number of others on test. The list includes:

TRAVERSE COLANTHA WALKER,	5 Yr.	Butter	1080.40,	Milk	22048.9
REFORMATORY CENTURY PONTIAC,	5 "	"	965.10,	"	20996.1
TRAVERSE INKA JOHANNA 2d,	4 "	"	955.76,	"	22400.2
TRAVERSE INKA HARTOG,	4½"	"	950.75,	"	21146.1
TRAVERSE SEGIS QUEEN,	8 "	"	938.90,	"	23759.1
TRAVERSE SEGIS HOUWTJE,	5 "	"	933.05,	"	21685.2
TRAVERSE SEGIS NINETTA,	5 "	"	932.61,	"	20078.7
TRAVERSE RYMA WALKER,	8 "	"	908.73,	"	20513.8

Eight others from 764.3 (at 2½ yrs.) to 877.13 lbs. Sixteen cows average 888.5 lbs. butter and 20297.6 lbs. milk in 305 days. Send for our list of bulls.

BUREAU OF ANIMAL INDUSTRY
Department B Lansing, Michigan

A YEARLY RECORD BULL— Ready for Heavy Service

SIR WALKER SEGIS LYONS was born Feb. 19, '22. He is well grown and a good individual. His dam produced 20718 lbs. milk, 823.86 lbs. butter in a year as a 2-year-old. His sire by Piebe Laura Ollie Homestead King is from a 1230-lb. dam with 30814 lbs. milk. Write today for further details if you want a sire with the best of breeding and production. You'll find the price very reasonable.

CARLETON COLLEGE FARMS, Northfield, Minn.
FEDERAL ACCREDITED HERD



A YEARLY RECORD BULL --- Ready for Heavy Service!

BORN JANUARY 23, 1923

We offer one of the good sons of SIR WALKER SEGIS HOMESTEAD, (a proven show bull with 32 A. R. O. daughters) who is a son of "PIEBE" out of a 1230-lb. world record daughter of "COUNT." His dam as a three year old heifer made 20853 lbs. milk and 753 lbs. butter in 305 days. The two nearest dams of this bull average 991 lbs. butter on long time test. He is quite dark in color, a good individual and priced for a quick sale. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota



Sir Walker Segis Homestead

GEO. M. FLINN DISPERSAL

45 REGISTERED HOLSTEINS

SEPT. 8th MEDFORD, MINNESOTA

(Accredited Herd)

Because of ill health Mr. Flinn is forced to retire. His famous Woodlawn Farm has been sold and a dispersal of his herd, established over 30 years ago, becomes necessary. This is a mighty choice herd of rich Ormsby breeding.

Send for Illustrated Folder

TWIN CITY PEDIGREE & SERVICE CO., Market Bank Bldg., MINNEAPOLIS, MINN.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

OUR HERD SIRE Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—King Piebe Ormsby Mercedes, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and King Pietertje Mercedes Ormsby, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

For $250

Son of a 1024-lb. yearly record granddaughter of King of the Pontiacs. Grandson of Sir P. O. M. 41st. Born Nov. 8, 1923. Splendid individual, good size, mostly black.

B. A. NORRIS, ANOKA, MINN.

GRADE HOLSTEINS FOR SALE

We have for sale several carloads of excellent grade heifers due in October at $75 each and top notch cows also due in late September and October at $100. These are exceptionally good ones,—productive and healthy. RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec. Randolph, Wis.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

JOHN H. PULS - - ALLENTON WIS

Puts Bossy *on the* Milky Way

H. J. LAGRANDEUR, PRESIDENT — N. E. PARNELL, CASHIER

BANK OF SOMERSET

SOMERSET, WISCONSIN

April 7, 1924.

Washburn Crosby Co.,
Minneapolis, Minn.

Gentlemen:-

Pursuant to a request of your Mr. W.G.Haertel as to our success with your Gold Medal Vitamin Dairy Ration, I submit the following as the result of our experience with our herd of Pure Bred and Grade Holstein Friesian cows.

On January 7th, 1924 we commenced to feed your Gold Medal Vitamin Dairy Ration to our herd, feeding one pound of the feed for every three pounds of milk produced, along with twelve pounds of clover hay and thirty five pounds of silage per day.

Prior to feeding your feed we were feeding the same amount of hay and silage and also one pound of the following feed to every pound of milk produced.

500# of Bran
300# of Ground oats
200# of Ground Corn
100# of Linseed meal

At the time we started to feed your Dairy Ration our herd of 20 cows were giving 521# of milk per day, the cows being at different periods of lactation. The following is the record of our milk sheet, conditions remaining equal except for the change of feed.

Pounds of Milk Produced			
Jan. 7, 1924	521	Jan.19,1924	592
8	533	20	606
9	531	21	619
10	530	22	634
11	546	23	637
12	549	24	641
13	554	25	647
14	559	26	653
15	568	27	659
16	567	28	668
17	578	29	670
18	580	30	672
		31	677

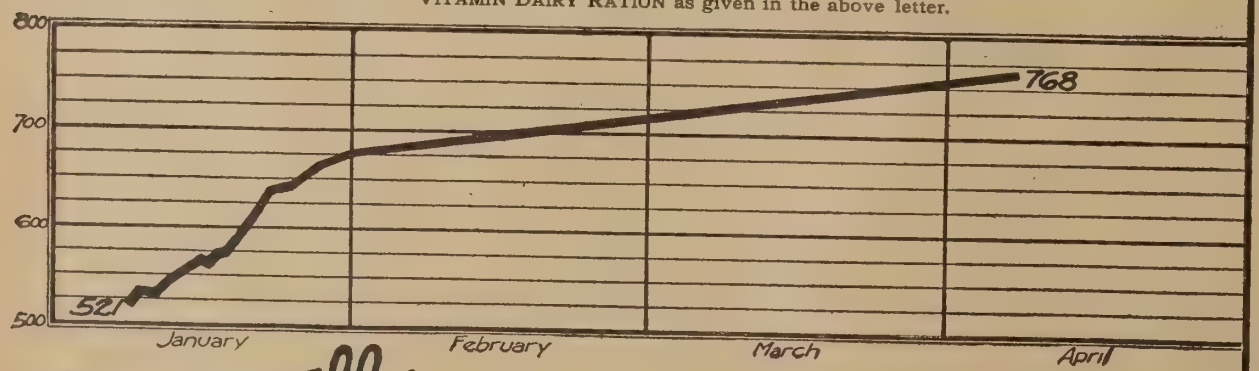
February shows a steady increase and our milk sheet for April 6, 1924 shows 768 pounds daily.

We hope that this will answer your inquiry and we assure you we will be very glad to have you refer to us at any time for information.

Very truly yours,
H.J.LaGrandeur

H.J.LaGrandeur

This chart illustrates the trend of milk production of a herd fed GOLD MEDAL VITAMIN DAIRY RATION as given in the above letter.





Some of the
GOLD MEDAL FEEDS

GOLD MEDAL Vitamin Dairy Ration (20% protein)
NORTH STAR Molasses Dairy Ration (16% protein)
GOLD MEDAL Hard Wheat Mixed Feed (16% protein)

GOLD MEDAL Vitamin Egg Mash (22% protein)
GOLD MEDAL Scratch Feed
GOLD MEDAL Chick Mash (with dried buttermilk)
GOLD MEDAL Chick Feed
GOLD MEDAL Growing Mash (with dried buttermilk)
GOLD MEDAL Developing Feed

There are 37 other GOLD MEDAL FEEDS. Your dealer should carry every one. Write our Feed Department if he can't supply you.

A FEED FOR EVERY FEEDING PURPOSE

Eventually
GOLD MEDAL FEEDS
Why Not Now?

4 C Ed. 7-0 July 25
Expt. Sta.
Urbana Ill.

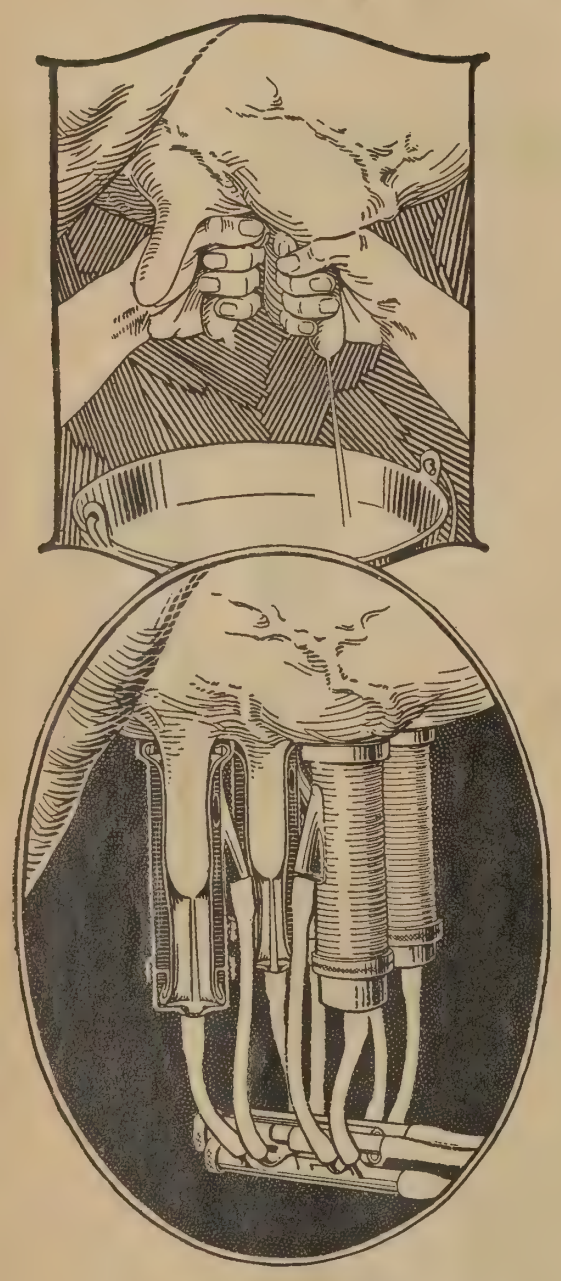
HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII. No. 9 Fort Atkinson, Wisconsin September 12, 1924

Human Hands Can't Compete with This



A user of a De Laval Milker recently said: "I would no more attempt to milk cows without a De Laval than I would try to raise wheat without a binder."

You know that hand labor can't compete with machinery---and yet there is no machine a dairyman can own that will save so much time as a De Laval Milker. Figure up what cutting your milking time in two, twice a day every day in the year, amounts to; and then compare this with the time any other machine you own will save.

But this is just one reason for using a De Laval Milker. It milks cows in the way they like best—vigorously, yet with a gentle, soothing and uniform action which stimulates the milk-forming organs to greatest production. That's why De Laval users are practically unanimous in their statements that they get more milk with it than by hand milking.

But that isn't all; with the De Laval cleaner milk can also be produced---and cleaner milk is worth more money.

There are thousands of De Laval Milkers in use which are giving perfect satisfaction. Many users state they would sell their cows and go out of the business if they couldn't have a De Laval.

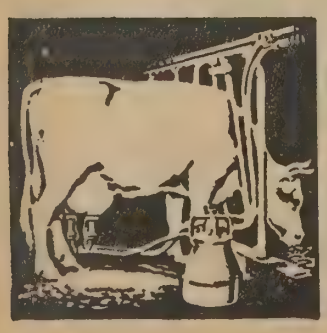
If you are milking ten or more cows by hand you are losing enough to pay for a De Laval. Send for complete information.

The De Laval Separator Company

NEW YORK
165 Broadway

CHICAGO
29 E. Madison St.

SAN FRANCISCO
61 Beale St.



Sooner or later you will use a

De Laval

Milker and Cream Separator



HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., SEPTEMBER 12, 1924 Number 9

EVER FAILING OR NEVER FAILING PASTURE

Part II.

Getting the Most out of Sweet Clover Pasture

WILBER J. FRASER, University of Illinois

Sweet clover should be allowed to make a high growth the first fall so that the root system will develop enough to enable the plants to stand the winter without heaving and make a rapid, early start the next spring. This is essential to the best results from the next year's pasture.

To secure the maximum amount of feed combined with the greatest palatability the second year, it is essential that stock be turned on when the clover is only four to six inches high and that it be pastured heavily enough to keep the growth of most of the plants down to a height of one or two feet throughout the entire season.

SWEET clover should be seeded in the small grain every spring, so that it will be ready for pasture in the stubble about the last of August when the old seeding dies out, as explained in a previous chapter. The experience of the most successful growers clearly indicate that the following rules are fundamental, if the best success is to be had from the use of sweet clover as a pasture crop.

Should Make Big Growth First Fall

The first year sweet clover should be allowed to get a good start—12 to 15 inches in height—before being pastured. The reason for this is that it must have a good, large root development early in the season. The roots should be as large around as a lead pencil, if possible, before any



Farm Adviser F. E. Longmire and Mr. W. D. Howland of Grundy County, in the latter's oats stubble. The sweet clover was a perfect stand, 8 to 10 inches high all over this field, July 25, 1924, and would be in fine condition to pasture by the middle of August.

stock is turned on, and the only way to get such roots is to let the tops grow.

This enables the plants to store more food and get a much earlier and thriftier start the following spring, which is an absolute essential to high success with sweet clover pasture. The plants should also have a growth of 10 to 12 inches to go into the winter, but this is not nearly so important as large development of the root system. Neglect in allowing the plants this fall development accounts for some of the failures of the crop and many instances of reduced results for the six months' pasture. Here are two good illustrations:

"Some years I find I can turn on by April 15, but pasturing short the first fall puts it back a good ten days the next spring."—Wm. Filman, Northern Illinois.

"I had a strip of sweet clover that was not pastured last fall and it shows a good deal more pep this spring than that which was eaten down close last fall."—W. H. Bartels, Northern Illinois.

Small Roots Heave Out

Several men in answering the questionnaires stated that they had no trouble with sweet clover winter-killing due to having been pastured close the preceding fall. Numerous observations, however, indicate conclusively that in a severe winter, plants which were pastured down closely soon after the small grain was cut, heaved out badly, while those which went into the winter with a good growth of roots did not heave at all. Many fields are pastured down to the ground near the gate but are quite high over the remainder of the field. Invariably a severe winter causes much heaving of the plants near the gate with no damage at all to those with more root and top growth.

A Striking Illustration

On my farm in Northern Illinois, a strip was cut for hay in a field of new seeding sweet clover early in October. The next spring this field was plowed on May 8 and 9, and the clover on the portion cut for hay was four inches high, while that not cut or pastured the previous fall was 8 to 10 inches high and a much thicker growth. The roots were small in the part cut for hay and the soil crumbled into a fine seed bed when worked with a smoothing harrow only, while on the portion of the field not cut for hay the tap roots were large and many small fibrous roots completely filled the soil. This made a tough sod almost like bluegrass, so the land had to be double disced before harrowing to make a good seed bed for corn.

While it is insisted from all observation that the sweet clover shall be allowed to make a large growth above and below ground before stock is turned on the first fall, it is also true that with fair judgment, two months of fall pasture can be secured from the new crop without injury.

Second Year Problem to Keep It Down

There is no danger of the sweet clover getting ahead of the cows the first fall, but the case is exactly reversed the following spring, when the stock should be turned on as soon as the clover is four to six inches high. With three-fourths of an acre per cow of *good, thrifty sweet clover*, there is no advantage in giving the plants more of a start than this. It is rather a distinct disadvantage, because if allowed to grow too large, the stems become woody and the crop loses much of its feeding value. As the clover grows larger, it also becomes less palatable.

To secure the maximum of digestible nutrients combined with the greatest palatability from pasturing the second year's growth, *it is essential that enough stock be put on to keep the growth of most of the plants down to a height of one or two feet throughout the entire season.*

Mr. J. P. Walsh of Southern Illinois says: "Sweet clover pasture should be turned onto the second spring before it gets but a few inches high if there is an abundant acreage. The closer the stock keep it down, the more feed they will get."

Many dairymen fail in this; they underrate the tremendous growth of the clover the second year and haven't stock enough to keep it down. They have too much clover; they use more land than necessary for this heavy producing pasture, and therefore waste the land. Three-fourths of an acre per head of stock is all and sometimes more than can be economically used for pasture the second year.



The above photo taken August 3 shows to the right of the arrow a fine growth of sweet clover three feet high. On the left is a strip which was clipped eight inches high on June 12, with a mowing machine. Clipping killed more than three-fourths of the plants and the clipped strip grew practically nothing but a luxuriant crop of ragweeds the remainder of the season.

Clipping Liable to Injure Pasture

Where sweet clover pasture is growing too rank and getting ahead of the cows, some people have resorted to clipping it about 8 inches high. This is a questionable practice at best and, if done later than the first of June, is nearly certain to be detrimental. Most experienced dairymen prefer to let the pasture grow. The cows will pick off the young, tender branches later, even if the sweet clover is four or five feet high.

Better to Double the Acreage in Fall

Many farmers find that if they use only the same number of acres of



The portion of the field to the left of the arrow was allowed a good growth last fall before it was cut for hay, October 10. This enabled it to develop a good root system. The portion to the right was pastured last fall, which retarded its root development, even though the cows were taken off early enough to permit the sweet clover to grow up 10 inches high before being killed by freezing. The great difference in the size of the clover on July 2, just after the cows were turned on, is readily seen in the picture.

sweet clover pasture in the fall that they use the following spring, when the growth is much more rapid, it is difficult to prevent too close pasturing in the fall. As a result, some men make a practice of sowing twice as much sweet clover every year as they intend to leave over for pasture the second spring. This provides a large acreage in the fall, gives the plants a chance to make a good top growth and develop a large root system with which to go into the winter. There can be no loss or mistake about this practice of doubling the sweet clover acreage for fall pasture. No land is lost to cultivated crops and much needed fertility is supplied to the soil. as one-half of the fall pasture is plowed the following spring for corn. All it has cost is the expense of the clover seed, and this is many times repaid in the increased yield of the crops that follow.

Experience Worth Heeding

Mr. William Filman of Northern Illinois says: "I have pastured sweet clover for four years with excellent success. It takes twice as much area per cow in the fall the first year as it does for spring and summer pasture the second year. Pasturing sweet

(Continued on page 232)

THE PROVING GROUND OF DAIRY FARMERS

S. R. WINTERS, WASHINGTON, D. C.

THE experiment farm of the Dairy Division of the United States Department of Agriculture, located at Beltsville, Md., is engaged in conducting tests to determine ways and means for insuring maximum milk and butterfat production from dairy cows. The quality and quantity of feeds, the types of quarters in which the animals are kept, the changing of milkers, and the utilization of sawdust in the production of milk, were among the factors studied and concerning which conclusions were drawn during the course of the year 1923.

The changing of milkers has no appreciable influence on the yield of milk and butterfat, if we are to accept the conclusion of experiments conducted by the Dairy Division at its experiment farm. An even dozen cows were subjected to this test. During the course of the first and third periods each cow was invariably milked by the same person; in the second milking period no one individual milked the same cow twice in succession. The results of these tests slightly favor the practice of one person milking a herd of cows continuously, since cows thus treated in these government experiments yielded 0.6 per cent more milk and 0.4 per cent more butterfat than those subjected to a change in milkers.

The feeding tests at this dairy experiment farm involved a consumption of more grain than suggested by the Savage feeding standard. Three pounds of grain were fed to cows in excess of this standard, and the animals thus treated responded in terms of a daily increase of 1.6 pounds of milk, 0.09 pound of butterfat, and 0.32 pound of body weight. Similar feeding observations indicated that cows given a small amount of roughage and a liberal supply of grain produced more milk and butterfat and accumulated more flesh than dairy animals fed sparingly with grain and liberally with roughage. Both groups of cows, in this instance, were fed according to the Savage standard. These results are responsible for the Dairy Division drawing the conclusion that the digestible nutrients in concentrates are worth more than an equal weight in roughage.

"Cows were fed a definite small quantity of hay, followed by all the silage they could eat, with grain sufficient to bring the total nutrients to standard, and the quantity of silage taken was noted," states a report of the superintendent of the dairy experiment farm in relating the results of another feeding test. "Later they were fed a larger quantity of hay, followed by their fill of silage as before, and it was found that for every additional pound of hay they ate almost exactly one pound less of silage, the total of roughage remaining the same. Since hay contains more nutrients than silage, using the larger ration of hay reduces the amount of grain needed. The quantity of total roughage consumed seems to be dependent on individual size and nature rather than on the quantity of milk produced."

Within recent years, the Forest Products Laboratory of the United States Department of Agriculture, in co-operation with the College of Agriculture of the University of Wisconsin, has conducted extensive experiments at Madison with the view of utilizing hydrolyzed sawdust as feed for dairy animals. More recent feeding tests by the Dairy Division at the experiment farm, Beltsville, Maryland, tend to discourage the use of this by-product from the manufacture of industrial alcohol as feed for cows. The sawdust contains much material of no feeding value. True, when chemically treated, sawdust may be used in limited quantities for sustaining dairy cows, but the present prices of other feeds and the relative cost of treating sawdust render it inadvisable to recover the nutritive contents of this by-product.

The tests of butterfat in the milk of all the cows at the dairy experiment farm, made in January and July, were analyzed. All told, 166 cows were tested during these two months. Results of a comparison of the tests in January and July indicate that there is a lowering of the butterfat test in summer as compared with winter, the variation being from 0.02 to 0.75 per cent. The continued feeding of prickly pears and the study of such results confirm preliminary conclusions that the magnesium in this desert plant has little or no influence in lowering the butterfat content of milk.

Stanchions, in a measure, merit the continued favor of this dairy experiment farm, although a comparative test with this form of quarters and box stalls for keeping cows gave the latter a marginal advantage in certain particulars. The cow maintained in the box stalls yielded a little more milk, evidenced a slightly increased butterfat production, and the animal accumulated more body weight than when confined to stanchions. However, in the final analysis, this dairy experiment farm recommends the use of stanchions since the increased yield of milk and butterfat due to the use of box stalls does not measure up to the additional expense of bedding and labor necessary to the maintenance of box stalls. Therefore, in speaking of the latter, the Dairy Division concludes, "this method is not to be advised except where maximum production is desired regardless of expense."



BUILDINGS AT BELTSVILLE DAIRY EXPERIMENT FARM

The experiments in progress, but not far enough along to warrant conclusions, include: The influence of feeding a large quantity of hay and small amount of silage compared with reversed quantities of these feeds; acquire information whereby the Wolff Lehmann standards for growing dairy animals may be revised; determine the quantity of extra feed first-calf heifers need in order to make normal growth while giving milk; and determine whether the frequency of feeding hay affects the quantity consumed and the milk production.

The War and Navy Departments of the United States Government maintain so-called proving grounds in the vicinity of the National Capital where instruments of warfare are tested and their merits proven or disproved. The dairy experiment farm of the Dairy Division, at Beltsville, Maryland, is the "proving ground" of the dairy farmer. Here, feeding and breeding theories are subjected to critical tests and if they qualify as practical under dairy farming conditions, they are passed on to dairymen for application. If, however, the suggestions and theories are exploded as worthless they are discarded as of no value to the dairy industry.

FAVORS T. B. TESTING

C. M. CHRISTY, PENNSYLVANIA

IN THE issue of your journal of August 8, 1924, was an article entitled, Dozen Reasons Against T. B. Testing, written by an Illinois Dairyman. As I am very well familiar with the subject I shall try to give twelve reasons in favor of T. B. testing, answering the gentleman's reasons one by one.

1. The question of transmission of bovine tuberculosis to people has been definitely shown by American and European investigators. Medical authorities estimate that 25 per cent of tuberculosis in man can be charged to the tuberculous cow; 40 to 50 per cent of abdominal tuberculosis and tuberculosis of the cervical glands in children show in microscopical examinations the presence of the bovine type.

2. The accuracy of the tuberculin test is 95 per cent, sometimes higher. The no lesion cases are due sometimes to an early infection in which no time is given for the development of the typical tubercles. In such cases the germs of tuberculosis are found in the blood stream manufacturing their toxins or poisons which give the characteristic tuberculin reaction. Sometimes they are due to an infection with the human type of tuberculosis which lacks the power of forming tubercles in cattle.

3. No matter how small the tubercle is in the reacting cow, if the animal is allowed to go on, there is always a danger of generalized tuberculosis and thus have tubercle germs eliminated with the milk. If the veterinarians conducting the post-mortem examinations were able to examine every tissue and organ under the microscope, the no-lesion cases would be very, very few, probably not more than 2 per cent. But such an examination requires a special laboratory, an additional personnel, and is not practical.

4. There is a very definite policy adopted by the federal and state governments concerning the eradication of tuberculosis. No misleading statements are tolerated by either government. The man who, as the dairyman from Illinois states, contradicts the statements made on the findings of tubercular lesions in slaughtered reactors, I do not believe is very familiar with autopsies. I am sure that if he studies tuberculosis and tubercular lesions in particular and visits some of the abattoirs where the reactors are killed, he will change his attitude toward the subject.

5. After a herd is cleaned up and all the necessary precautions are taken to eliminate any introduction of the disease, it remains clean. Practically every new outbreak in an accredited herd can be traced to some source of infection.

6. If a person wants to keep his herd clean, he must do all in his power to lessen any chance of reinfection.

7. A tuberculous cow is a detriment to the farmer and community. She has no place on the farm. She is a menace to the health of the farmer's family and people consuming her products; she must be eliminated.

8. Pasteurization does not always kill the tubercle bacilli. In naturally infected milk the tubercle bacilli are embedded in masses of mucus, clots of fibrin, or shreds of tissue and this albuminous covering protects them from the action of heat.

9. A dairyman or a farmer ought to be willing to suffer some loss from the actual value of his animals. He should realize that they are diseased.

10. Even though, as the dairyman from Illinois admits, the per cent of human infection traceable to the bovine type of tuberculosis is low, there is no reason to keep an animal with tuberculosis on the farm. Saving lives of even a few children is sufficient reason to exterminate the tuberculous cows from the farm.

11. The government officials have more than they can do without costing for the test. There are thousands and thousands of progressive farmers waiting for the tuberculin test of their cattle.

12. If the animal on post-mortem examination shows evidence of generalized tuberculosis the entire carcass is tanked. But when there is only a localized form of the disease some of the meat is used, being absolutely safe for human consumption.

Beggarweed

The Florida Department of Agriculture has just issued a bulletin on Beggarweed prepared by Mr. C. Leach, who has given the readers of Hoard's Dairyman considerable information concerning this plant. The bulletin is very well illustrated, discusses the different varieties of beggarweed and also the development of this plant on Cherokee Farms operated by Mr. Leach. He discusses its feeding and fertilizer value and how the crop should be handled and fed. Those interested in this subject can secure a copy of this bulletin by writing the Commissioner of Agriculture, Tallahassee, Fla.

Good Results from Hard Work

CLARENCE BROWN, OHIO



THE HOME OF MR. HARTER AND PART OF HIS PRESENT HERD

RODE recently with Professor Oscar Erf of the dairy department of Ohio State University visit a farmer whom cows have set ree. As we scurried along the Naonal Pike from Columbus to Thornille, Licking County, Ohio, where is farmer, M. C. Harter, lives, rofessor Erf said:

"He has always been a hard workr, heavily in debt, and not much iance of getting out until he began sting his cows and discovered that is herd was worth some money. He ound out that out of five cows he as testing that all were Register of erit cows, three were gold medal ws, and one a state champion. He ld this bunch after the test for ough to lift his mortgage and put m on his feet.

"He made good because he stayed the job. So many farmers will not that. I helped Mr. Harter decide s ration and I felt that once he arted to test he would see it rough. He is successful today beuse he did see it through."

The professor continued, "I have en trying to drive home this testg work to the farmers of this state r some time. They cannot make ney in dairying, I tell them, witht good cows. And they must test discover good animals. There is other way. But so many fail to light. Mr. Harter, though, did see d was not so easily discouraged d he won out. His records were de under ordinary conditions, ."

In about an hour we turned south m the National Highway and into hills of Southern Licking Coun. Then the "very ordinary condins" became noticeable. The hills re large and the farms but fair king. Turning from the main road a "mud pike" we ran along a lge top and soon we saw the Har- home nestled among the hills be-v. A group of Jerseys in pasture the house took my eye. Most of m were young animals, it seemed, we lowered our Ford down the hill l into the driveway. As we drove ard the house I noticed only one d cow in the lot. The remainder re heifers and a few young bulls. e has type as well as production, parently," I thought as the anils raised their heads to watch us s by.

n the barnyard we asked a young n busily repairing a double-tree ere we could find Mr. Harter. "He gone to Newark but will soon be e," he answered. Meanwhile we ed about. The barn nearby was a n structure. The house, too, was retentious though well kept and active. The other buildings were and common. I remembered Proor Erf's phrase—"ordinary conons". In the barn, however, I d electric lights and I saw wires g to the house. "Modernly pped, at least," I thought, "and aps not as ordinary as before he those cows."

on a motor car whirred into the l. It was new, or fairly so, and it not the cheapest car sold. A ium sized, genial man just passed ile aged got out of the car and jovially greeted the professor. The professor then turned my way and introduced me to Mr. Harter. He greeted me wholeheartedly.

"Come out to the barn and see my new bull calf," he said. "I just got him the other day from Spann in New Jersey and I think he will suit me." Spann of New Jersey is one of the largest Jersey plants in the East. We viewed the calf and found him a typy youngster. "He is a double grandson of Golden Fern's Noble; that's the line I want to breed into," said Mr. Harter, "and I think I have a bull that will raise the herd a notch higher. I always aim to get a better bull than my last one was and I find that hard to do now. But I think I have found one in this calf."

As we left the barn and walked through the pasture looking at and taking pictures of the herd I gradually gleaned Mr. Harter's story. I give it to you briefly.

He was, until thirteen years ago, a renter and a hired man. Many days he worked for seventy-five cents to a dollar a day. After getting enough money for a small down payment he moved to his present farm. He started early to fight his heavy mortgage by keeping good Jerseys. He tested and built up his herd. About nine years ago he went to Hal Hill's dispersal sale to see about a future herd sire. He had his eye on a bull calf to be sold there. The calf's breeding was good with Golden Fern's Noble blood on the sire's side and from a tested dam. But Mr. Harter did not like its individuality. He was, therefore, leaving the farm without the calf when Mr. Hill offered it to him for $35. Mr. Harter made the purchase. This calf, Lilac's Fair Play, was later the bull that started Mr. Harter's success.



MR. HARTER WITH FAIR PLAY'S PRINCESS, THE CHAMPION, ON THE LEFT AND LILAC'S EMPRESS ON THE RIGHT

Fair Play later sired several good heifers from matings with the daughters of Harter's former bull, Coronation's Chief, a son of Fountaine's Chief. This combination brought the winners.

About five years ago Mr. Harter began Register of Merit testing. From the results he either culled his cows or kept them and believing he was on the right road kept on testing. The results are that on his last test of five cows all made Register of Merit records, three proved to be gold medal winners and one, Fair Play's Princess, became Ohio's senior four-year-old champion Jersey for fat production. Princess' record for the year was 964.48 lbs. fat, and she dethroned Tonona's Jean of Hartman Stock Farm, former champion, whose record is 937.16 lbs. of fat. Records of the five cows follow:

	Fat Lbs.	Age Yrs.	Mos.
Fair Play's Princess	964.48	4	11
Lilac's Empress	877.21	4	9
Coronation's Extra Beauty	814.88	3	2
Lilac of Licking	529.43	3	8
Lilac's Cora	516.15	4	8

These records at once brought Mr. Harter notice and orders for breeding stock. He could have sold his entire herd for fancy prices. Twin Oaks Farm, an eastern Jersey stronghold, came through with an offer that was accepted, and the champion and three of her test mates were sold for $4,500. Fair Play's Princess, the champion, brought $2,500 and Lilac's Empress and Lilac of Licking were sold for $1,000 each. Lilac's Cora proved a doubtful breeder after the test and she went with the other cows as a near gift. Cora is now being treated at Twin Oaks to restore her breeding powers.

"I surely wish I had more young heifers to sell," said Mr. Harter as we sat in the living room. "There are orders coming here all of the time and I must turn them down. But I am going to take it easy this summer," he continued, "and my wife and I are going to drive East and see some of the big Jersey farms."



LILAC'S FAIR PLAY, THE SIRE THAT EARNED HIS OWNER A FORTUNE

Coronation's Extra Beauty was the only cow in the test that was not sold to Twin Oaks Farm. She was also the only one of the five that was not sired by Lilac's Fair Play. She is, however, the dam of Lilac of Licking and Lilac's Cora by matings with Fair Play. The old cow was sired by Coronation's Chief, Fair Play's predecessor at Harter's.

Mr. Harter is wise in keeping this cow in the herd. She is good seed stock for more winners. She is a beautifully typed cow as well as a Register of Merit producer. I saw her on pasture amid a bunch of beautiful heifers, most of them granddaughters or great granddaughters of old Fair Play. Out of the fourteen Jerseys now on the farm there are five granddaughters and three great granddaughters of the old bull.



THE HARTER BARN WHERE THE RECORDS WERE MADE

This is briefly Mr. Harter's story as it was told to me and as I found it there among the hills. The records of Mr. Harter's cows are undoubtedly one of the greatest sermons on testing to be found within the Buckeye State. And they were made, as I want to emphasize, under ordinary conditions. Mr. Harter's farm is nothing but an ordinary farm of 80 acres. Of this, about 25 acres are too hilly to cultivate or are in woods.

During the summer the cows ran on pasture, during the winter they were housed and well cared for. Mr. Harter fed them scientifically, milked them regularly, and watched their health carefully. He worked hard and persistently. "In a year," he told me, "I missed doing the milking myself only twice, and I milked my three highest cows four times a day."

He worked hard, I thought after we had said good-bye and were nosing up the long hill to the top of the ridge, but his cows came through with the records, made him a fortune, and brought him recognition.

Sex of Calves

HOARD'S DAIRYMAN:—The live stock breeder usually assumes that if the cow carries her calf over a more extended period than 283 days of pregnancy that the calf will be of the male sex. To determine whether this is true or not we have studied the breeding records kept in connection with the dairy herd at the Kentucky Agricultural Experiment Station, the records covering a period of approximately 20 years. We have not included any gestation period that did not exceed the usual period by at least 5 days. Three hundred gestation periods were examined and 44 selected that considerably exceeded the usual period.

It is found that the 44 cows exceeded the usual gestation period by from five to seventeen days. They gave birth to 44 calves, 26 of which were bulls (59 per cent) and 18 of which were heifers (41 per cent).

Of two cows carrying calf 14 days over time, one had a heifer and the other a bull. The only case where there was a decided predominance of one sex was in the case of cows carrying calf 6 days over time. In this case, 12 calves were male and only 3 were females.

HOOPER AND NUTTER.
Kentucky College of Agriculture.



CORONATION'S EXTRA BEAUTY WITH A RECORD OF 814.88 LBS. FAT

THE WISCONSIN STATE FAIR

IF you will look back over Wisconsin State Fair reports for the past several years, you'll find the weather man gets blamed regularly for lack of attendance during part of the week. He gets the blame for smaller crowds than usual this year, but in a different way. The weather during fair week was too good. After the wet weather Wisconsin farmers have had all summer, this week of sunshine was too valuable to pass by unused, and harvesting, threshing, and haying kept a good many of them home that would normally have spent at least one day at the fair.

Exhibits generally were well up to standard and a new Manufacturers' building helped to house some of them to advantage. It is to be hoped that more of them will be in it next year.

A High Producing Herd

The Cow Testing Association showing was a striking illustration of what can be accomplished by intelligent breeding and feeding. It consisted of the entire milking herd (13 head) of Leo Kuhl and Son of Grant County, Wisconsin. Mr. Kuhl, you should know, is a farmer that depends upon his farm and his herd for his livelihood. He early found that for a profitable herd it was necessary to use good sires, save his best heifers, and to feed intelligntly. Two years in a cow testing association show he has been successful.

Last year those 13 registered Holstein cows and heifers produced a total of 196,544 lbs. milk and 6,948.5 lbs. butterfat which brought a net profit of $2,548 over feed cost. There was an average production of 534.5 lbs. fat per cow and an average profit above feed cost of $196. The high cow produced 839 lbs. butterfat and the lowest producer had 325 lbs. fat to her credit. It is interesting to know that the high cow, Pauline Ormsby DeKol Canary, the best Cow Testing Association producer in the state for 1924 received 5,550 lbs. grain, 50 lbs. salt, 1,800 lbs. hay, 6,000 lbs. silage, and approximately 90,000 lbs. of water during the year.

Mr. Kuhl was very successful in improving his herd. The line-up in the exhibit barn showed dams, daughters, and in one case a granddaughter. With one or two exceptions the daughters were an improvement over their dams as producers and as individuals.

The Biggest Show of Dairy Cattle

The dairy cattle show this year was away ahead of previous shows and was probably one of the largest, if not the largest, dairy cattle showing ever seen at any state fair. Eleven hundred and two animals passed before the judges; enough to crowd the barns to overflowing.

Holsteins were as usual the leading breed with an exhibit of 526 head, the largest number of black and whites we have ever seen at Milwaukee. Among them, there were of course, some tail enders, but they were surprisingly few for such a show. All of them were Wisconsin cattle and almost all represented county associations. The county show herd class brought out 13 entries, 130 head that just about filled the judging ring. Jeffrson County repeated last year's performance and stood first, Milwaukee County was second, and LaCrosse County third.

Last year there were 161 Jerseys shown at Milwaukee; this year there were 214, making one of the best Jersey contests Wisconsin has had for years. A good herd representing The Oaklands from Michigan, and Mr. J. K. Dering's Cedar Crest herd from Illinois were the out-of-state exhibitors and while each of them was fairly successful, they found competition surprisingly keen with honors pretty divided all around when the last class was placed.

Guernseys were not quite up to standard in point of numbers, the 211 head entered being 50 behind 1923. It was a good show, however, with every class a close one and blue ribbons pretty well scattered among the different herds. D. D. Tenny, Minnesota, was the only out-of-state exhibitor. F. J. Rueping was the biggest winner with eleven blues and two championships to his credit.

The Brown Swiss show was only about half as large this year as in 1923. Classes were small in most cases and this always makes a less interesting show. N. C. Schmid was very much the heaviest winner. His herd took 15 blues out of 18 blues and all of the championships.

Ninety-eight Ayrshires made a showing just about equal to former years. Adam Seitz and Sons, with 38 entries, were the big exhibitors and incidentally the heaviest winners, with the herd of H. M. Wallis a good second. Wm. Nisbet and Sons, Daneil Hanrahn, and J. B. Walvoord and Sons were the other exhibitors.



MADAM ARTIS WAYNE DENVER, FIRST PRIZE THREE-YEAR-OLD, SENIOR AND GRAND CHAMPION AT WISCONSIN STATE FAIR
OWNED BY JEFFERSON CO. ASYLUM, WISCONSIN



Upper illustration shows the 13 County Show Herds of Holsteins, consisting of 130 head as they appeared in the arena at the Wisconsin State Fair. The lower shows Wisconsin's Highest Producing Herd, consisting of 13 pure-bred Holsteins owned by Leo Kuhl & Son, that averaged 534.5 lbs. fat. This exhibit was made by the Wisconsin Dairymen's Association to show the value of cow testing work.

A complete list of first prize winners for all breeds follows:

Holstein

Judge: Ward W. Stevens, New York.

Bull 4 years or over—Baltz Hoesley, Wisconsin on North Star Joe Homestead. Bull 3 years old and under 4—Joe E. Piek, Wisconsin, on Johanna Ragapple Pabst. Bull 2 years and under 3—Fred Wiffenbach, Wisconsin, on King Pontiac Champion. Senior yearling bull—H. W. Halbach and Sons and L. J. Halbach, Wisconsin, on Sir Fobes Ormsby Hengervelde Junior yearling bull—Jefferson County Asylum, Wisconsin, on King Mutual Fan. Senior bull calf—J. D. McDonald Wisconsin, on Pietertje Pontiac Fayne. Junior bull calf—Clarence Halle Wisconsin, on Gen. Homestead Mercedes.

Senior and grand champion bull—Joe E. Piek on Johanna Ragapple Pabst Junior champion bull—Jefferson County Asylum, on King Mutual Fan.

Cow 5 years old or over—Agricultural School Farm Wisconsin, on Barbette Hengerveld De Kol. Cow 4 years old and under 5—St Croix Co. Asylum, Wisconsin, on Beryl Johanna Maid Cow 3 years and under 4—Jefferson County Asylum on Madam Artis Wayne Denver. Heifer 2 years and under 3—J. D. McDonald on Bessie Pontiac Rose 2nd Senior yearling heifer—Jefferson County Asylum on Johanna Wayne Rue 2nd. Junior yearling heifer—C. G. Keyes, Wisconsin, on Cosy Burke Ormsby. Senior heifer calf Baird Bros., Wisconsin, on Nockdair Model Canary Parthenia. Junior heifer calf—E Riederer, Wisconsin, on Cato Pine Violet Ca

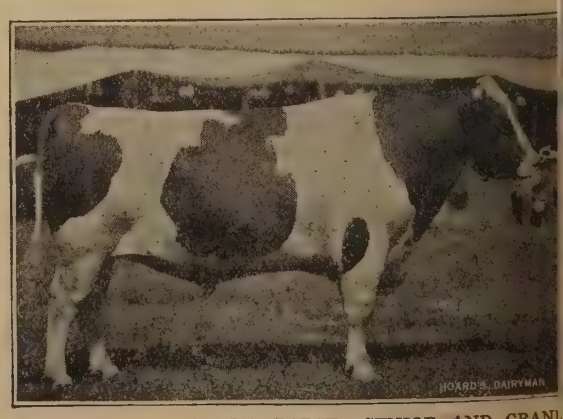
(Continued on page 216)



ARION OF EDGEMOOR, SENIOR AND GRAND CHAMPION GUERNSEY BULL
OWNED BY ROY BURTON & SON, WISCONSIN



POLLY OF HILLSDALE, SENIOR AND GRAND CHAMPION GUERNSEY COW
OWNED BY F. J. RUEPING, WISCONSIN



JOHANNA RAG APPLE PABST, SENIOR AND GRAND CHAMPION HOLSTEIN BULL AT WISCONSIN STATE FAIR
OWNED BY JOS. E. PIEK, WISCONSIN

IOWA CELEBRATES JUBILEE FAIR



ZWINGARA SEGIS CLOTHILDE, SENIOR AND GRAND CHAMPION AT IOWA STATE FAIR
OWNED BY MODERN WOODMAN OF AMERICA, COLORADO



WILLOWMOOR ELSIE RUTH, SENIOR AND GRAND CHAMPION AYRSHIRE COW AT IOWA STATE FAIR
OWNED BY B. B. SIMMONS & SONS, WISCONSIN



FINANCIAL MAY QUEEN, SENIOR AND GRAND CHAMPION JERSEY COW AT IOWA STATE FAIR
OWNED BY INDERKILL FARMS, NEW YORK

IOWA'S jubilee fair is over. It was her greatest fair. Seventy years ago a young newsaper man rode several miles on horseback to cover the first Iowa fair held in Greenfield. A little eleven-year-old girl was likewise a fair visitor that year. She came in a covered wagon. J. S. Shepherd, ninety years of age, and Mrs. Eliza Rhodes, eighty-four years young, were the honor guests at the 1924 Iowa State Fair held in Des Moines, the capitol city, Aug. 22 to 29. In the state wide search for the oldest man and woman fair attendants these two "youngsters" won. Today, the mode of travel is quite different. Railroad trains and automobiles supplant the horseback and covered wagon of old.



WOODCRAFT PONTIAC CHAMPION STAR, JUNIOR AND GRAND CHAMPION HOLSTEIN BULL AT IOWA STATE FAIR
OWNED BY MODERN WOODMAN OF AMERICA, COLORADO

Although this year's fair has expanded to proportions undreamed of when the first state fair was held in 1854, the same spirit of devotion to the Hawkeye state has filled the visitors at every one of the seventy reunions and this spirit has been responsible in a large measure for the steady growth of the state fair until it is today recognized as one of the nation's leading state fairs. This loyalty in the hearts of the sons and daughters of Iowa has likewise helped in placing this state in the front ranks agriculturally speaking. Were you to compare the attendance of the 1924 event with 1854 you would find a marvelous and astounding growth. Where hundreds attended, thousands now throng.

It was generally conceded that one of the big features of this year's fair was the boys' and girls' club department. More than 1,200 of Iowa's future farmers took part to make it the best of its kind in Iowa. A large number of demonstration teams competed in all the various subjects of agricultural and home making treated in project work. The pig, sheep, poultry, and baby beef club exhibits all had large entry lists, and the judges had their hands full in determining the winners. The club camp, "on the hill", was a veritable bee hive of activity the whole week. In the huge dining hall several hundred hungry mouths were fed each day. On Wednesday afternoon, the program featured the 4-H club members and a gigantic parade of some thousand boys and girls in front of the grandstand started the festivities.

That the horse still maintains a high place in agriculture was conclusively demonstrated in the horse department of the Iowa State Fair. There are few, if any, state fairs in America that can boast of such a large and splendid horse show, hog department, or beef exhibits. Strange things sometimes happen, but it really is not strange that side by side at the Iowa fair should be found a mammouth exhibit of farm machinery and a big barn full of some of the finest horseflesh in America.

If you are interested in fine grains and forage crops, in bees, and honey, in flowers fair to behold in any of the several phases of horticulture but more especially the story of the apple, then the agricultural exhibit building was a place where you could profitably spend considerable time. Here, too, were housed the dairy produce exhibits featuring butter statuary and a most excellent exhibit furnished by the United State Department of Agriculture. In a series of booths this exhibit pictured in colors and in ink several lessons in better dairy methods, including co-operative bull associations, lime and legumes, co-operative marketing, cow testing associations, and boys' and girls' calf club work. In this building also the Iowa State Dairy association had a booth in which they featured calf club work in Iowa, stating in picture and placard the advantages of building for the future, and giving out the fact that over 600 dairy calves are enrolled in calf club work in Iowa this year.

Without a doubt, the Iowa State Fair is distinctly a farmers' fair. An eighty acre tourists' camp attests strongly to this fact. Here the farmers and their families can reside during the entire week, tenting out, and get their own meals if they so desire.



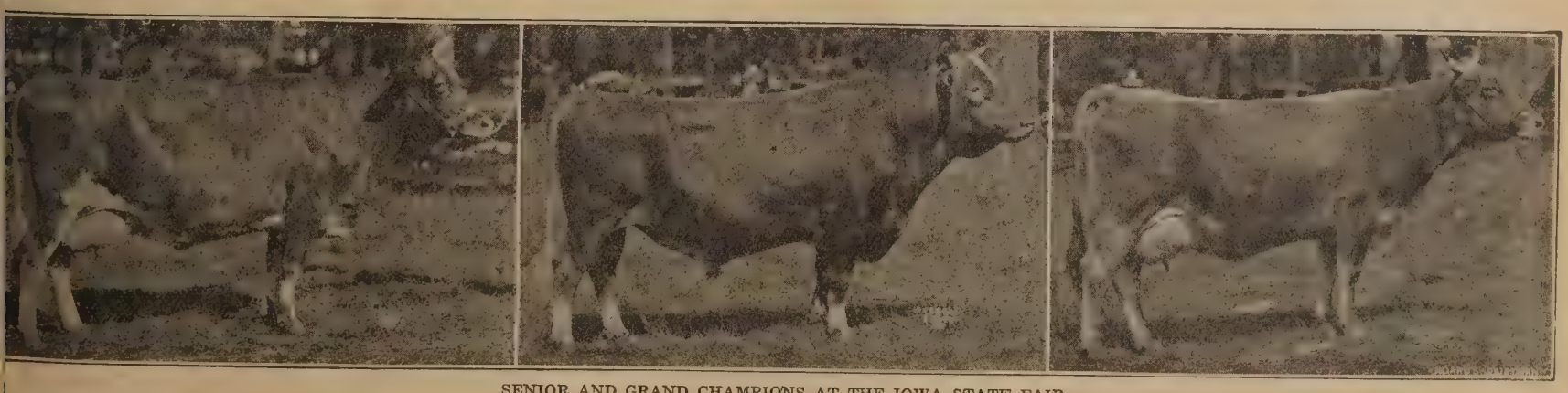
FASHIONABLE FERN LAD, SENIOR AND GRAND CHAMPION JERSEY BULL AT IOWA STATE FAIR
OWNED BY MEREDITH FARMS, IOWA

Dairy Cattle Exhibit

The dairy cattle show at the 1924 Iowa state fair eclipsed all former records in both quantity and quality. In every class competition was exceptionally keen. A total of sixty-five exhibitors showed some 668 head. Last year's entry total was 450 head. The Holstein breed led with 262 entries, an increase of 22 head over last year. Jerseys had 163 entries as against 90 last year. The Guernsey showing more than doubled in point of entries, there being 144 entries compared to 70 a year ago. Ayrshires were fewer in number but more than made up this deficiency in quality. Thirty-five head were shown. Brown Swiss entries more than trebled 1923 with 64 head.

It can be said that the Guernsey show was one of the outstanding features of the entire dairy cattle exhibit. This division attracted a large number of outside-of-Iowa breeders. Wisconsin, Minnesota, North Dakota, Oklahoma, and Vermont contributed several entries each. Some idea of the keen competition can be gained from the senior yearling bull class. The first three calves were so close that a flip of the coin might have decided the placings. Ringside observers agreed it was a hard matter to decide. The junior and grand champion Guernsey female, Honey Bloom of the Prairie, shown by W. W. Marsh, was a noteworthy animal and splendid individual. She should gain high favor in the best Guernsey society of the land. As a senior calf and junior yearling she

(Continued on page 228)



SENIOR AND GRAND CHAMPIONS AT THE IOWA STATE FAIR

GUERNSEY COW, HONEY BLOOM OF THE PRAIRIE
OWNED BY W. W. MARSH, IOWA

GUERNSEY BULL, LASSIE BOY OF THE PRAIRIE
OWNED BY ALBERT L. HYZER, WISCONSIN

BROWN SWISS COW, MARIE GRONYER
OWNED BY MOONEY AND LARABEE, IOWA

EDITORIAL COMMENT



ACCORDING to the Department of Agriculture, 19,000 farmers intend to sow more winter wheat this fall than last year. The figures show that the acreage will be increased by about 7½ per cent. The advance in the price of wheat is responsible for these farmers increasing their wheat acreage. In 1923 the dairy farmers produced seven billion pounds more milk than in 1922. The prices of dairy products being relatively higher than many other farm products, was the main reason for increasing production of milk.

It has been ever so, that when prices advance to a point where it seems profitable to produce a certain article, there will be immediate increase in its production. Those who try to regulate production by talking, by rules, or by laws have just about as much effect upon the producers of this country as an old woman with a broom by the seashore trying to sweep back the waves of the ocean.

FAMILY DIET

The National Dairy Exposition has established a new department which will devote itself to instructing visitors how to feed the family. This new department is being developed by H. E. Van Norman, president of the National Dairy Show Association.

Nothing is more important to the welfare of the people of this nation than knowledge on how to feed the family. We cannot hope to develop strong men and women unless they have proper diets. The World's War taught us that as a nation our people are not being fed properly. Altogether too many young men were rejected because of improper development. We may well be proud of our accomplishments but to dwell upon them and to feel self-satisfied, when not all housewives know how to balance a ration for the family, is unwise and short-sighted.

A demonstration and exhibit as to how to prepare a proper diet for the family is a commendable piece of work and one that should interest every visitor at the National Dairy Show.

PRODUCERS TO FORM FEDERATION

At a call issued by G. R. Rice, Secretary of the Milwaukee Milk Producers' Association, several representatives of Wisconsin milk producers' associations met at Milwaukee recently and laid plans to form a milk producers' federation. Representatives came from the following cities: Racine, Madison, La Crosse, Superior, and Sheboygan.

The next meeting will be held at La Crosse the first Tuesday in December, and it is expected that representatives of the milk producers' associations of Kenosha and Eau Claire will also be present.

This is moving forward with the Wisconsin program for organizing the dairy industry for processing and marketing dairy products. It is not contemplated to pool the milk produced in these various communities through a federation. Each organization will carry on its own work, but by a federation someone can be employed to gather information concerning the dairy industry and to co-ordinate the various units that they will work for the mutual benefit of one another. We look upon this as a wise and sensible procedure.

PROVEN SIRES

The Bureau of Dairying is carrying on an extensive experiment in breeding dairy cattle, attempting to gather more practical information which will be of help to the breeders of dairy cattle in this country. One of its projects is to loan bulls to dairy farmers in the community where their experiments are being conducted. This work of loaning bulls is but a part of its general breeding project in which it plans to use sires, for generation after generation, that have proven their ability to transmit uniformly high production and good type.

In a recent article our correspondent, Mr. S. R. Winters, stated that the Bureau of Dairying had but two bulls loaned from its experiment station at Huntley, Montana. This was a misstatement of fact, for all bull calves from its five herds are loaned to farmers in the the vicinity. Its object in loaning the bulls, as described by Mr. R. R. Graves, in charge of dairy cattle breeding investigations, is to determine their transmitting ability of milk and fat production and type. He states further, "The sires that prove prepotent for these characteristics will be used in our experimental herds and if we have more prepotent sires develop than we can use in our own experiments, we plan to loan these proven sires to state experiment stations and colleges. At the present time there are some 25 bulls loaned from the herd at the Huntley Experiment Station, and from our five herds we have loaned some 75 bulls that are in the process of being proved."

The time is coming when no bull will be used upon a well developed herd that hasn't first been proved that he is capable of getting high producing and good type animals.

MICHIGAN MILK PRODUCERS

A summer meeting of the Michigan Milk Producers' Association was held at the Michigan College of Agriculture on the 21st of August. The members during the forenoon visited the Experiment Station and in the afternoon listened to discussions on co-operation and the future of the dairy industry.

It is not our purpose to attempt to report this meeting, but we desire to quote a paragraph or two from John D. Miller's address, which relate the purpose and object of co-operation. We do it for the purpose of setting clearly before the minds of some people who think co-operation is an attempt to fix prices and that it is a socialistic movement. Regarding this, Judge Miller, in part, said:

"These co-operative associations are but efforts to mobilize the financial and commercial strength of the farmers; not to tear down but to build up.

"These associations are not socialistic. They are an aggressive negation of socialism. They are founded upon recognition of the right of private property, and are opposed to government ownership, operation, or control of the industrial and commercial systems of the country.

"They do not attempt to repeal or suspend economic laws, including that of supply and demand, but rather to so mold conditions that every city may be supplied with all the milk it desires and no more, and the surplus converted into less perishable products and sold in the markets of the world.

"They do not ask government assistance. All they ask of government is to clear away any obstacles by the enactment of such laws as will permit them to exercise their own powers of initiative. They are opposed to unnecessary governmental interference in any business, believing that the wonderful development of the industries and commerce of the country is because men have been at liberty to exercise their power of initiative in the development of the various industries of the country."

We would like to add also that we know of no association that has rendered a better service to its members than the Michigan Milk Producers' Association. Its officials have had an understanding of correct principles and practices of business and by their attitude and their requirements have built up a relationship between their organization and the milk dealers that is working to the advantage of all concerned. It is the idea of some men that the only way a farm organization can be successful is through fighting those who are purchasing the farmers' product. They grow suspicious of their officers if there is harmony between them and the men to whom they sell. This shows a false understanding of what a farmers' organization is created for. Its purpose is to secure the best market prices for farm products and to place them on the market with the least possible expense.

The officers of the Michigan Milk Producers' Association have been successful in that they are working in harmony with those who purchase their milk and they have been able to get as much for milk as any organization similarly situated. The milk producers belonging to this organization should be thankful for the position which their organization holds and what it has accomplished for them.

SERVICE AND SUCCESS

True success comes through rendering useful service. This applies to individuals, to farm organizations, and to institutions of all kinds. The National Grange, one of the leading farm organizations of this country, has recognized and followed this principle. In any community where a considerable percentage of farmers belong to a Grange, one is impressed immediately with the saneness of views and with the understanding of public questions. Members of the Grange, as a whole, view agriculture in its true light and see its relation to other industries in the proper way. They are interested in the development of farm life, the community, state, and nation as well as in the making of money. Money with them is only a means to an end. In a weekly letter issued by the Grange, its Washington representative, Mr. T. C. Atkeson, states the following:

"I take it as fundamental that the reason the Grange keeps on working, growing, spreading, and increasing in prestige and in good repute, is because it deals so largely with the leisure, the outside-of-routine, the social, the recreational, and the educational sides of agricultural life. In the doing of these things, the members of the Grange are really learning to know each other as they are—outside of the dollar environment—and because of this knowledge of each other come the realities of business confidence, when the time arises for business organization for mutual benefit.

"I have a map on which is designated by black dots and other indications, the localities where successful co-operative enterprises are flourishing. I have another map on which by dots and other indications are the localities where Granges are flourishing. With a few exceptions, one the great fruit co-operative section of California, the dotted and shaded areas of the two maps almost coincide. But the Granges are thirty and forty and fifty years old. The co-operatives are eight or ten or fifteen years old."

How well the work of the Grange exemplifies the Master's statement: "He that findeth his life shall lose it and he that loseth his life for My sake, shall find it". To be able to serve ourselves best we must be willing and ready to serve others.

Seeding Sweet Clover

Your articles on sweet clover for pasture are very interesting. Will it do well without being fertilized? Is it too late to sow some for pasture next season? How would you advise me to try it?

Wolfeboro, N. H. R. C. B.

Sweet clover, like all other plants, will do better on well fertilized soil than upon poor ground. However, it seems to be less dependent upon a fertile soil than is alfalfa. If the soil is sweet and the proper inoculation is used, reasonable success can be expected from sweet clover, even on the poorer class of soils.

The best success has been usually had with seeding sweet clover with grain in the spring, using from eight to twelve pounds of seed per acre. We recommend the use of the biennial white sweet clover where it is desired to pasture this crop. In writing for seed, mention that you desire the scarified biennial white sweet clover. Sweet clover seed has a tough, resinous coat and unless the seed

has been scarified so as to properly break this coat, the seed does not germinate readily.

It has been customary in some places to seed sweet clover in the last cultivation of corn and good success has been reported with this practice. It may also be possible to seed it after corn has been taken from the ground for silage, or immediately following the harvest of a grain crop. However, if seeded after August 1st, there is some possibility that the growing season will not be long enough for the sweet clover to establish itself vigorously and it may not go through the winter well. As the cost of seed is not heavy, this may be a good speculation where it is desired to have spring pasture on the sweet clover. There is very little loss if the sweet clover does not make a sufficient growth, for the ground can be plowed in the spring for corn, if not for the usual grain crop, where the stand is too poor for pasture.

Seeding Sweet Clover on Sod

I have become quite interested in trying to grow some sweet clover for pasture. I have only a 40-acre farm but there are enough acres that can not be plowed, on account of limestone, to pasture my herd—providing it would grow sweet clover. There are a few hickory and white oak trees on the pasture land, too, that I do not care to cut off. How can I get sweet clover started in this case and how long will it stay? This pasture is all high and well drained.

Wisconsin. C. F. D.

We would suggest that you go over your pasture as early as possible next spring, giving it a thorough disking, preferably disking both ways. You may then seed 8 to 12 lbs. of scarified biennial white sweet clover. This may be broadcasted and the early spring rains will cover it sufficiently, although it may be gone over with a drag if this seems desirable when the soil is inclined to be sandy or light. The seed should be inoculated.

If not practical to work the land with a disk harrow or other tillage instrument, you may have some success by seeding the sweet clover directly on the present sod. In this case it might be preferable to use the unscarified seed, increasing the amount sown to 15 or 20 lbs. per acre. The seed, particularly if scarified seed is used, is best sown as early in the spring as possible and just as the frost is going out of the ground. It is possible that the use of the unscarified seed this fall might be productive of results.

Sweet clover will live for only two years, but it makes such vigorous growth that it will tend to reseed itself in part the second year. However, the cost of seed is not heavy and it is desirable to have the insurance of reseeding at least every two years, if not every year.

Reports are desired from others as to their experiences in seeding sweet clover on sod.

Milk Route on Shares

A neighbor wishes me to take charge of his dairy herd and milk route on shares. The herd consists of about 30 cows, 22 cows in milk all the time. He is to furnish cows, feed, pasture, and all equipment and deliver all feed to the dairy barn. I am to furnish all the labor to milk, feed, deliver milk, and collect, also all creamery help. What share should I receive?

Aldie, Va. O. T. S.

We have no information of dairy herds being handled on shares in the manner indicated. We have had occasional inquiries of this character, but have had no reports of this method being put into actual operation.

Mr. W. J. Dougan, a Wisconsin dairy farmer who has had large experience in operating a dairy farm and retailing a high quality of milk, has given us some information which may be helpful in coming to such an arrangement as desired.

For many years Mr. Dougan has kept very exhaustive records and he finds that his man labor expense runs from 25% to 33% of his gross receipts. He is of the opinion that where the owner furnishes everything but the man power, the tenant or operator would be properly compensated by allowing him 25% of the gross income. If extreme care is to be given the cows and the handling of the milk, he believes that the percentage allowed should be increased to take care of the extra labor cost.

Mr. Dougan writes us that he can see very little value in the share arrangement over a direct salary. He says the tenant's only means of increasing his income is to increase production and cut down labor costs. To do this he would be inclined to feed rather extravagantly and to lessen the work to a point where it would degrade the quality of the milk. On the other hand, the owner would desire to lessen the feed costs and to increase the labor in connection with the care of the herd and the milk.

Buckhorn

Please send me any information on how to get rid of buckhorn in the land.

Casco, Wis. J. D.

Buckhorn is a perennial plant perpetuating itself each year by means of fibrous roots. It does not spread by its roots as does quack grass and Canada thistle, hence the plant can be killed by removing this tuft of fibrous roots from the soil. It is not a difficult matter to kill the plants by thorough plowing and cultivation. The fact that on any farm it first appears in a clover field where the farmer dislikes to plow up the field for fear of destroying his hay crop, the buckhorn is often allowed to go to seed. The fact that clover is usually cut twice in a year would seem to indicate that the buckhorn would not be apt to go to seed. The writer has known a time when all visible stems of the buckhorn plant were removed eight times during the season but still new shoots appeared as late as October 1. This gives some idea of the persistence of the plant in seed producing. Being a perennial the plant does not produce seed the first year and the seed stems appear in the second year in the clover. If a field is badly infested it will be a good plan to plow the clover field at once in order to destroy the buckhorn plants before they have opportunity to produce seed. This may cause serious loss to the farmer if he happens to need the hay badly but it will save him money in the end. If the buckhorn is allowed to go to seed and the seeds are plowed under when the clover sod is turned over, the seeds will lie unharmed in the soil for years, probably twenty or more, and every time the field is plowed some of the seeds are brought to the surface and unless the field is watched very closely another crop of seed will be produced and the last state of the field will be worse than the first. In other words, the plants themselves are easily destroyed. The thing that is essential is to prevent seed production. As stated above, if the plants are very thick the field should be plowed even at the sacrifice of the clover hay crop. If the plants are merely scattered throughout the field they should be cut off with a hoe and if the seeds have already been formed the plants should be carried off the field, piled up, and burned when they are sufficiently dry.

Wisconsin College of Agr. A. L. STONE.

Ropy Milk

Kindly tell us the cause of stringy milk. The milk is apparently all right when drawn from the cow, but after setting awhile becomes stringy.

Mankato, Minn. J. C. M.

We anticipate that the trouble described is what is known as ropy milk and is caused by bacteria which get into the milk from outside sources. Sometimes this source of infection may come from the water in which the cans or milk utensils are washed; sometimes from the water in the cooling tank, and sometimes from the bacteria which the cattle may pick up on their udders and bodies by wading through marshy ground or other wet places. Sometimes it may come from a stable infection, but this would be very unusual. About the only method to pursue is to exercise particular care that all milk utensils are thoroughly sterilized with boiling water and are then allowed to dry out thoroughly, either with artificial heat or by standing in the sun.

If this does not overcome the trouble, the next point of attack would be to see that the cooling tank is thoroughly cleaned out and preferably disinfected with a 12-ounce can of chloride of lime, or bleaching powder, to 100 gallons of water. As an additional precaution, all milk utensils might well be immersed in this solution. If neither of these treatments removes the trouble, then recourse should be had to keep all possible contamination away from the cows and out of the milk.

It might be possible that the water tank is the source of the infection, in which case it would be necessary to clean and disinfect this. The infection may come through the cows wading through wet places in the pasture, and the only proper procedure then is to restrict the cows from such areas. In addition, it would be well to see that the cows are thoroughly brushed off and possibly the udder and flanks washed in a disinfecting solution somewhat similar to that used for the milk cans. In all cases where the disinfecting solution is used, care will have to be exercised that it be properly rinsed off or time permitted for the odor to evaporate; otherwise, the milk will take up this odor.

It should be understood that the exposure to heat or to disinfectants leaves nothing on utensils which will prevent the growth of ropy milk organisms if they find their way to the utensils after such treatment. In actually carrying out such a disinfecting campaign at the farm, it occasionally happens that some pail, dipper, or other object which has been in contact with the ropy milk is overlooked. If, in connection with the handling of the milk, the germs on this one utensil spread to the others, the result of the disinfection is lost and the trouble will reappear in the milk. Fortunately, in handling actual outbreaks, the trouble rarely reappears where the work has been carefully done.

A Father and Son Farm

Many fathers would give their sons a definite share in the farm business and endeavor to keep them at home if they could find some satisfactory share basis. The following suggestions are made primarily with the father and son problem in mind but they are also applicable to others.

1. Give the son a certain share of the returns from the sale of crops and other farm products as well as a share of the increase in value of live stock. In return the son would perform all or a certain part of the labor. For example, if a son agrees to do all the farm work, or hire what is needed in addition to his own, his share might be fixed at one-fourth of the gross returns.

2. Let the son supply all the labor and the father sell him a half interest in the live stock, machinery, and supplies, in fact, everything except the land. The son would sign a note for the amount at a nominal rate or without interest as might be decided upon. Each party might then agree to accept one-half of the returns and pay one-half of all expenses except taxes on the land and cash outlay for upkeep of buildings, which would fall on the owner of the land, the father.

3. Form a stock company out of the farm business and give the son or each son a certain share in the stock company formed. One of the members would be responsible for the bookkeeping and for the handling of the finances and other members would have their work more or less clearly defined, depending on the size and character of the farm business. Each one employing his time on the farm would receive a wage as decided upon. This would vary with the time put in and the importance of his contribution toward the success of the undertaking.

When the father assumes all the expenses except man labor, as outlined in the first suggestion, the son is responsible for only a part of the expenses and may be inclined to spend too freely on machinery, supplies, and feed, being primarily interested in high gross returns, whereas the father is interested in net returns. This sort of an arrangement, however, is easily made and easily terminated as there is no joint investment and the son requires little or no capital. To a large extent the responsibility of management falls on the father.

In suggestion two, expenses as well as receipts are of equal importance to both parties as the net income for both depends upon the excess of income over expenditures. Each has an interest in the capital invested and on the whole it must be a more permanent arrangement if it is to be successful. The one disadvantage, so far as the son is concerned, in either of the first two suggestions is that he gets no share from increase of land values. He is less interested in making and keeping up improvements than the father.

The formation of a stock company as outlined in suggestion three overcomes this and tends to include the good features of suggestions one and two. The son shares in all income, whether from land or direct farm operations. Losses due to any cause must also be shared, also the payment of a certain wage based upon his contribution in the way of labor or management gives him something definite. The wage received may be small but it should be relatively as large as that received by the father. Careful records are necessary so that a detailed financial statement may be worked out at the end of the year.—N. D. Bulletin 171.

Hoard's Dairyman

Fort Atkinson, Wisconsin

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EDITORS
A. J. GLOVER, P. C. BURCHARD

General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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Corresponding Editorial Staff:

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Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

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Coming Events

Sept. 14-20—Eastern States Exposition at Springfield, Mass.

Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.

Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.

Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition, Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Robert Louis Stevenson gives good advice when he says, "Cling to your youth; it is an artist's stock in trade; do not give up that you are aging and you won't age."

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

WAYSIDE MUSINGS

Mystical Side of Life

JOSEPH S. MORRIS, WISCONSIN

ONE does not need to argue that this is a time in which knowledge is held in high esteem. There is a thrill that comes to a man when he can say about some important matter: "I know." It means that he no longer speculates, nor guesses, nor theorizes. He has gathered together certain facts—used those facts—and they have worked. He is master of at least one thing.

In every line of human endeavor life is challenging men, as never before, to be men who "know". Schools, colleges, universities, specialized schools, and extension courses are aiming as never before to put men into their chosen field of work with such knowledge as shall make them capable of succeeding.

But man cannot build a complete and perfect small world of his own and shut all else and everybody else out of it, nor does he wish to do it. There is a mystical side of life that is made of dreams, and music, and poetry, and beauty. No one man has a monopoly on it. Man reaches outward, outside of himself, and upward toward something that is higher than himself. One of the writers in the Bible speaks of: "Things which eye saw not, and ear heard not, and which entered not into the heart of man. Whatsoever things God prepared for them that love Him." 1st Cor. 2:9.

St. Paul, the writer, tells those to whom he is writing that he did not come to them in "persuasive words of wisdom", but in demonstration, through his life and acts; of a power that had changed his whole course. He was a learned man. He was familiar with many questions which puzzled men then, and still puzzle them. But he also realized that men must build their lives upon some foundation which they feel will last. That there is such a foundation he does not doubt—he knows.

In spite of all that "we know" there is also much that we do not know, and much that we know only in part. We have not begun to make full use of this religious side of life. There is a normal place in every robust life for dreams, for meditation, for prayer, for worship, and this mystical side of life should be cultivated. Sometimes the grind of life is so hard that we do not even lift our eyes to see the beauty around us, yet doing so would relieve the strain. Tennyson, the poet, makes this appeal:

"Speak to Him, thou for He hears, and Spirit with Spirit can meet—
Closer is He than breathing, and nearer than hands and feet."

Those whose lives are lived in the open have the opportunity of seeing and feeling much of the mystery of our world. There are beautiul scenes in wood, and field, and valley. There are splendid sunsets when the skies are wonderully tinted. There is the hush and the quiet when the mystical side of life asserts itself.

Some men work and do not think. Others think and do not work. But the thing that makes us or mars us is what we think about while we are working.

Bankers Support Dairy Show

Bankers throughout Wisconsin are backing the dairy industry in a thorough manner. This year, with the National Dairy Exposition opening in Milwaukee, the chief city of the state, on Sept. 27, the bankers are giving a real demonstration of their faith in the dairy cow.

The credit situation in the state has been so good, that when other states were borrowing from the finance organization of the federal government, Wisconsin had money to lend, it is pointed out. Milwaukee which secures much of its prosperity through the wealth the cow brings to the Badger farmer had a record of less unemployment than any large city in the last five years.

Wisconsin banks have been devoting large portions of their advertisements to the Dairy Exposition. With the lessons of better cows, better sires, cheaper feeding, improved machinery, work for the junior clubs, and the new department, "Feeding the Family" with its especial economy and health plea for the women and housewives of city and state, the bankers have been urging attendance at the dairy classic in Milwaukee on all citizens of the state and union. N. D. S. A.

Seed Corn for 1925

HOARD'S DAIRYMAN:—There will be a great shortage of seed corn the spring of 1925 unless extreme effort is put forth by every farmer and seed grower in the land. Many states are sounding the warning as they can plainly see the handwriting on the wall. Those states using the late maturing varieties of corn will harvest little seed.

It will be up to Wisconsin and other states using early maturing varieties of corn to furnish reliable seed next spring. Practically all corn will contain a large amount of moisture when harvested, and much corn will necessarily be harvested while it is yet in the dough stage.

No seed corn should be left in the fields after a heavy frost. It should be taken from the stalks at once and put in the dry room. Seed corn should not be piled up several ears deep. It should be put on hangers where the ears can have free circulation of air. All seed corn should be fire dried in the presence of good circulation of air. If fans can be run in seed corn drying rooms, it will help very much. All doors and windows of the seed corn room should be left open the first few days and until the corn begins to loosen up on the cobs.

Air dried seed will be of little value this year, as the process is too tardy to drive out the excess moisture. Only fire dried corn will be free from disease and of high vitality next spring. R. A. MOORE.

Wisconsin College of Agriculture.

Judging Dates

Illinois State Fair

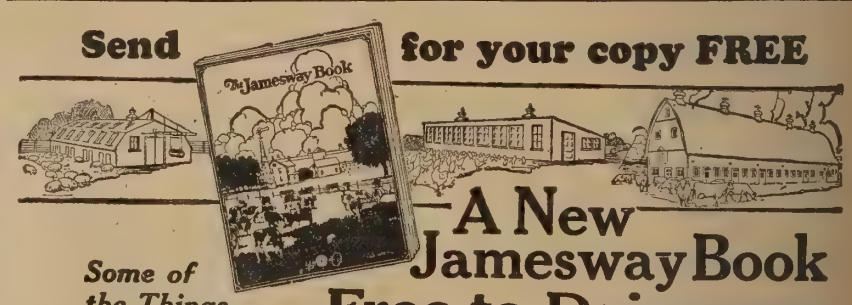
Sept. 15—Brown Swiss.
Sept. 16—Ayrshires. Jerseys.
Sept. 17—Guernseys.
Sept. 18—Holsteins.

Dairy Cattle Congress

Sept. 23—Brown Swiss. Judge, J. B. Fitch, Kansas. Jerseys—Judge, F. W. Barber, Tennessee.
Sept. 24—Brown Swiss. Jerseys completed. Ayrshires—
Sept. 25—Ayrshires completed. Judge, H. H. Kildee, Iowa. Holsteins—Judge, R. E. Haeger, Illinois. Guernseys—Judge, L. S. Wilson, Minnesota.
Sept. 26—Holsteins and Guernseys completed.

$EARN EXTRA MONEY full or part time selling 175 Popular Household Articles and Food Products to friends and neighbors. Experience unnecessary. Outfit and instructions free. Wonderful plan. Investigate!
HEALTH-O-PRODUCTS COMPANY
128 Duane Street Cincinnati, Ohio

Send for your copy FREE



A New Jamesway Book Free to Dairymen

It May Save You Many Dollars!

Some of the Things This Book Tells—

- How to get a good dairy barn.
- How to remodel an old barn.
- How to get good ventilation.
- The Essentials of a Good Cow Stall.
- How to Give cows pasture comfort in the barn.
- How to judge a stanchion.
- How to feed cows for profit.
- How to insure "safety first" with the bull.
- How to make the cleaning job easy.
- How to water your cows in the barn.
- How to have better hogs and bigger litters.
- How to make more money from your hens.
- How Jamesway "Pay-from-Earnings" Plan pays for your equipment as you use it.

WE SELL DIRECT TO USER

And many other helpful pointers on cow, sow and hen problems.

If you are interested in bigger earnings from cow, sow and hen, there's a world of information for you in this new Jamesway book.

It's filled with ideas. Tells how Jamesway "Direct-to-Farmer" Service is cutting out needless labor costs and needless hard work in farming, and enabling folks to live better, happier and put away more in profits each year.

Find out how much Jamesway can increase your earnings? You can install Jamesway Steel Stalls, Pens, Drinking Cups, Litter Carriers, Poultry House Equipment, etc., at once, on "Pay-from-Increased-Earnings" plan.

Jamesway Service is given personally right on your farm by our local Jamesway man in your territory. Our new book tells about it. Send for your copy today. Use the coupon, or a postal to Dept. A.

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Please send me your new Jamesway Book.
I keep.....cows, ...hogs, ...hens.
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"Jamesway" Helps Make Farming Pay

Why Poor Cheese

HOARD'S DAIRYMAN:—Although the annual consumption of cheese in the United States is increasing and the quality now consumed is considerable, it is small compared with what it would be if there were any real attempt made to cater to the tastes of the people and supply them with the kind of cheese they like. The cheesemakers inform me that most of the cheese is shipped in a green condition. In fact one cheesemaker tells me that he has seen Monday's cheese boxed and shipped on Tuesday, and this in spite of the three-day ruling. It is difficult to understand how intelligent men can act so foolishly in the face of positive warnings which have appeared in the dairy press from time to time. If you continue to do this, consumption is going to be interfered with.

The grocers who handle cheese, as a rule, do not pay much attention to quality, and are guided in their purchases almost entirely by the matter of price. Generally speaking, they will buy cheese at a quarter of a cent below the market price that the regular cheese buyer will not touch except at a big reduction. As a result, they are offered the culls and usually get them.

Another mistake the grocer makes is to wait until fall to lay in his stock, buying in a number of cases direct from the factory the green, uncured cheese which should not be eaten in less than 5 or 6 months.

The proper time to secure cheese for winter consumption is during the month of June, taking the cheese from the factory or buyer when they are 10 days or two weeks old and keeping them afterward at a cool temperature to develop flavor. If the cheese have a clean flavor and are purchased at a factory where there is a cool curing room (not over 65 degrees) they will turn out best if held for four or five months at a temperature of 50 degrees or lower, down to 32 degrees. The cool cured cheese develops a mild but distinctly "cheesy" flavor which is universally liked. The small cheeses weighing 10 to 15 pounds are the most popular. They are also the most expensive for curing. Such cheese reach the consumer without cutting and thus a saving of considerable waste is affected.

There is opportunity for factories with cool curing rooms to do a splendid business in catering to this local trade. Here and there one finds a grocer who has studied this part of his business with the result that his trade has grown enormously in this particular line. These men go direct to the factory and contract for their best cheese, even if they pay a slight premium. I would say to grocers, buy your cheese, if you can, from a factory with a cool curing room, taking the June cheese for winter use and September made for the following summer. Such cheese should always be paraffined when ten days old.

Cheesemakers that want to develop a market of this kind should be careful and honest. In talking with a large groceryman in Southern Wisconsin he said, "I have a serious complaint to make this season on account of excessively short weight on cheese, brought about, we believe, entirely through being shipped in far too green a state. It has meant a considerable loss to us financially and otherwise, as a large quantity of the goods has developed a bad flavor, undoubtedly on account of the heat having a much worse effect on immature cheese than it would if they were properly cured. Needless to add we are going to buy our cheese elsewhere." It is useless to throw the blame on the buyers and let it go at that. The buyer knows the danger of this sort of thing well enough and the fact that they buy and sell green cheese is proof enough that they will not act in the interests of increased consumption when it serves their purpose to do differently.

I fully agree with many that say the blame rests on the buyer. It is generally assumed that there is a temporary gain to the factory that sells green cheese. I believe the cheese buyer takes green cheese because he believes the market has an upward tendency and he will profit by the increase, and that he sells green cheese because he thinks the market has a downward tendency. One of the surest ways to lower consumption is to continue the practice of selling green cheese. This is going to bring on a depression by causing a lessening in consumption and causing stocks to accumulate. This has always caused the patrons of cheese factories millions of dollars through lower prices. This expense is always with us but we never seem to learn that by holding back the cheese we increase the scarcity, stiffen the prices, and at the same time encourage the consumption of cheese by giving it time to reach a better condition and so help to increase the active demand.

Illinois. C. R. BARKER.



GUARANTEED
to outlast any other farm fence

This new Square Deal, which outlasts any other farm fence, is marked with a *Red Strand*—always look for it. The *Red Strand* stands for: *First*, Copper-bearing steel, which, in itself, lasts at least twice as long as steel without copper in it; *Second*, Made by the patented "Galvannealed" process, which means 2 to 3 times more zinc than is found in the ordinary kind; *Third*, Superior Keystone construction which makes every rod uniform, firm and strong.

Buy only fence with the *Red Strand* marking—it gives many more years service—costs no more.

The Triple Life Wire
Galvannealed
Square Deal Fence
(No Extra Price)

There are only two known methods of making farm fence wire. One is the *ordinary galvanizing way*—the other is our newly patented "Galvannealed" process.

No one but Keystone can make fence wire by the "Galvannealed" process. No other fence wire is made that will give you the long extra wear that "Galvannealed" Square Deal is *guaranteed* to give—and it is sold to you at *no extra price.*

No other fence has all these big points: (1) Copper-bearing open hearth steel, "Galvannealed", rust-resisting wire gives Square Deal 2 to 3 times longer life. (2) Full gauge wires last longer. Square Deal Fence is never under gauge. (3) The famous Square Deal Knot absolutely will not slip—guaranteed. They hold line and stay wires with a firm grip. (4) Stiff stay wires, like pickets, require fewer posts. They hold Square Deal Fence tight and trim—no sagging. (5) Well crimped line wires, firmly gripped to the stiff stay wires, with the "knot that never slips" gives Square Deal Fence good live tension, secure against strains or sudden weather changes.

World recognized authorities such as: Indiana State University, R. W. Hunt Laboratories, Chicago, C. F. Burgess Laboratories, Madison, Wisc., all back up our claims that Red Strand "Galvannealed" Square Deal will far outlast any other farm fence. Copies of official tests will be sent upon request. They prove that the new Square Deal is the best and longest lasting investment you can make.

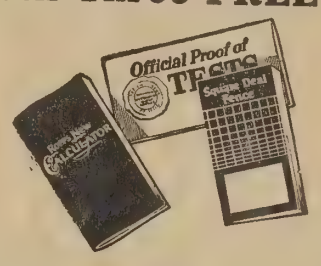
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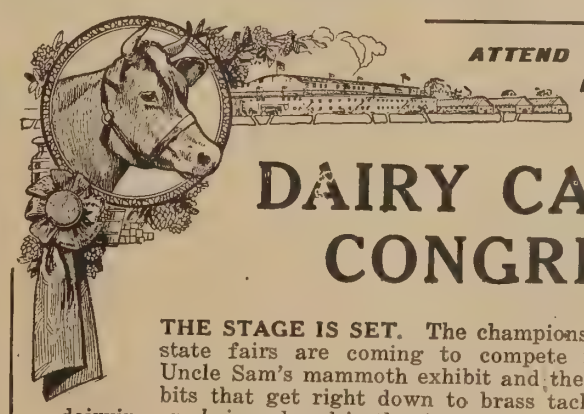
Write today for (1) "Official Proof of Tests" which tells why you should buy "Galvannealed" Square Deal; (2) Ropp's Calculator which answers most questions on the farm. Figures costs, interest, gives measurements, contains commercial law and a lot of other data. (3) *Red Strand* "Galvannealed" Square Deal catalog, with fence sizes, descriptions, etc.

After reading these books and tests, you'll be able to judge how fence is made and what kind to buy. A postal from landowners brings—

All Three FREE



41



ATTEND THE FRIENDLY SHOW

DAIRY CATTLE CONGRESS

THE STAGE IS SET. The champions from all the leading state fairs are coming to compete for supreme honors. Uncle Sam's mammoth exhibit and the scores of other exhibits that get right down to brass tacks on every phase of dairying are being placed in the dozen big buildings. Manufacturers will have every conceivable piece of equipment for the dairy farm and creamery on display. Worthwhile programs will be the order of the day.

IT'S ALL FOR YOU. To come and to see means clipping a dozen years from the school of individual experience in the barn at home. It's the time for that vacation you've been promising yourself and the family. You can't come too early nor stay too late.

Sept. 22-28 — Waterloo, Iowa

REDUCED RAILROAD RATES—a round trip rate of a fare and a half from Iowa, Illinois, Wisconsin, Minnesota, North and South Dakota, Nebraska, Kansas and Missouri. Ask for certificate for return if coming from outside Iowa.

It Pays to Advertise

Mr. William Wrigley, Jr., the chewing gum king of Chicago, in explaining the rapid growth of his company, said it was all due to advertising.

"But," interrupted one of his friends traveling with him to the Pacific Coast, "you have already built up a remarkable business. Why not save some of this advertising money and run along on momentum for a while?"

"Well," Mr. Wrigley said, "we have had a fine, fast trip west from Chicago so far. How much progress do you think we would make if they took off the engine?"—Empeco Paper News.

G-D Sanitary Seamless Strainers



Improved filter removes dirt. Solid drawn steel. Easy to keep sweet and clean. Full twelve-quart capacity. Will last a lifetime. "Send no money. Pay $2.00 and postage on receipt. *Money back if not satisfied.* Write for our free Dairymen's Supply Catalog.

GOWING-DIETRICH CO., Inc.,
208 W. Water St. Syracuse, N.Y.

Will Cut Your Bacteria Count

When writing advertisers please mention Hoard's Dairyman.



Where lead
is a shield for steel

STREAKS of red stand out against the sky. Tiny figures suspended in midair cover the steel cables of the bridge with red-lead.

From the time the bridge is built, rust seeks to destroy it. Lead is the shield that protects the steel cables, girders, and beams from rust and prevents the bridge from becoming a death-trap. It keeps the bridge strong today, strong tomorrow, and for years to come.

Nearly twenty million pounds of red-lead are applied to metal every year in this country. Yet this is not enough. Rust still destroys millions of tons of steel. Between 1860 and 1920 the world's output of iron and steel was about 1,860,000,000 tons. Of this total it was estimated that 660,000,000 tons were wasted through rusting in use. Just as unpainted farm houses decay and crumble, so iron and steel, unprotected by paint, rust, and are soon ready for the scrap-heap.

Where red-lead saves metal

On the farm red-lead is an important factor in prolonging the usefulness of machinery and tools. Unpainted metal is an easy victim for rust. It is rust that causes many a farmer to spend money for repairs which could have been avoided by the timely application of red-lead paint.



This painter is risking his life to give the steel cables of the Brooklyn Bridge paint protection. He is putting on red-lead, the strongest shield that steel can have against rust.

Red-lead is necessary wherever iron and steel are. Railroads, gas and water companies and ship owners use red-lead constantly. They have found from experience that red-lead protection lowers the cost of maintaining iron and steel structures.

Red-lead keeps rust from attacking metal roofs, steam radiators, registers, pipes, fire escapes, fences, iron gates and exterior ornamental work of all kinds. It covers machinery, trucks, iron pipes, and metal equipment.

Red-lead has been used for generations as the standard protective covering for metal. Mixed with pure linseed oil, pure red-lead makes a paint that dries to a hard, tough layer and clings tightly to the surface. It is insoluble in water.

Red-lead should be and is usually used next to the metal in its natural orange-red color. It is tinted to dark colors for finishing coats for the sake of appearance or for inspection purposes.

A hundred pages of paint facts

If you want to know how to save the surface of metal, wood, or masonry on your farm with paint, write for our "Handy Book on Painting." This book is filled with essential paint facts and formulas and will be sent free at your request.

Producers of lead products

Dutch Boy red-lead is the name of the pure red-lead made and sold by National Lead Company. On every keg of Dutch Boy red-lead is reproduced the picture of the Dutch Boy Painter shown below. This trade-mark guarantees a product of the highest quality.

Dutch Boy products also include white-lead, linseed oil, flatting oil, babbitt metals and solder.

National Lead Company also makes lead products for practically every purpose to which lead can be put in art, industry, and daily life. If you want information regarding any particular use of lead, write to us.



"Save the surface and you save all"

NATIONAL LEAD COMPANY

New York, 111 Broadway; Boston, 131 State Street; Buffalo, 116 Oak Street; Chicago, 900 West 18th Street; Cincinnati, 659 Freeman Avenue; Cleveland, 820 West Superior Avenue; St. Louis, 722 Chestnut Street; San Francisco, 485 California Street; Pittsburgh, National Lead & Oil Co. of Penna., 816 Fourth Avenue; Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut Street.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Mich.	No. Eaton	July	R. H.	67.9	G. T. Warren
Ohio	Licking Co.	"	G. H.	77.5	J. F. Harlan
Nebr.	Douglas Co.	"	G. H.	73.4	C. Spanggaard
Wis.	Hol.-Morrison	"	G. G.	65.2	W. C. Lemke
Md.	Upper Montgomery	"	R. H.	86.0	Lambert
"	No. Montgomery	"	G. G.	59.6	L. King
Ind.	Spencer-Perry	Aug.	G. J.	80.2	R. E. Laird
Ia.	Colesburg	"	G. H.	54.8	G. A. Kuhlman
Mich.	No. Kent	July	R. H.	62.0	F. Jewell
"	Traverse-Antrim	"	G. G.	56.0	E. Fox
Ill.	Ogle Co.	"	R. H.	79.6	Rock Riv. F'm.
S. D.	Hamlin	Aug.	R. J.	54.4	F. L. Hayes
Wis.	Verona	"	R. H.	60.2	K. L. Hatch
"	Clintonville	July	G. H.	58.4	T. O'Connor
Mich.	N. Gratiot	"	G. J.	82.3	Geo. Davis

Association Notes By Testers

Douglas Co., Nebr.: Three members are using milking machines, 10 have silos, and 9 are feeding some grain with pasture. The association is 100 per cent in pure-bred sires. Producers received $2.00 a hundred for market milk and 32 cents per pound for fat. Milk retails for 11 cents a quart and butter for 38 cents a pound.—J. T. Pierson.

North Eaton, Mich.: Where cows are on pasture at night, production is very noticeably increased. If more farmers had pasture such as sweet clover the production would be economically increased. The condensery paid 40 cents a pound for fat and the cream station, 37 cents. Milk retails for 8 to 10 cents; butter for 48 cents; and cheese, for 45 cents.—H. E. Frank.

Spencer-Perry, Ind.: Out of 288 cows tested during August, 64 made over one pound fat per day. Three members are building summer silos. The creamery paid 60 cents a pound for fat. Milk retailed for 12 cents a quart and butter for 55 cents a pound.—C. Baker.

Colesburg-Two-Co., Ia.: The association reorganized with 20 of the old members and 6 new. Some members have tried feeding grain on pasture for the first time and have done so with good results. The value of good clover pasture is very apparent when compared with June grass. The creamery paid 44 cents a pound for fat and butter retailed at 45 cents.—G. H. Crawford.

North Kent, Mich.: One modern dairy barn is under construction with complete equipment, including electric lights. Farmers receive $2.30 a hundred for market milk, with the condensery paying $1.55 a hundred and the creamery, 39 cents a pound for fat.—H. Hansen.

Traverse-Antrim, Mich.: One separator was found to be losing ½ of one per cent fat in the skimmilk. Two members had their soil tested, which was found to be acid. All members are having a good second cutting of alfalfa. One car of dairy cows was shipped to Missouri. Farmers received $1.75 per hundred for market milk. Milk retailed for 10 cents a quart and butter for 45 cents a pound.—R. J. Kaiser.
—R. J. Kaiser.

Ogle Co., Ill.: One new silo was built and drinking cups are being installed on another farm. There were 31 cows that made over 50 lbs. fat. Farmers received $2.50 a hundred for market milk, with the condensery paying $1.60.—J. Potter.

Hamlin, S. Dak.: Nine unprofitable cows were sold for slaughter and one cow sold for dairy purposes. Three members signed the accredited herd agreement for tuberculin testing. Thirteen members supplemented pastures with grain. The creamery paid 32 cents a pound for fat.—F. E. Hanson.

Verona, Wis.: A number of barns were whitewashed. One electric lighting plant was installed and one barn equipped with steel stalls. Farmers selling market milk received $2.10 a hundred, with the condensery paying $1.65, the cheese factory $1.41, and the creamery $1.85. Milk retails for 9 cents a quart; cheese, for 16 to 21 cents a pound; and butter, for 58 cents.—G. W. Weihing.

North Gratiot, Mich.: Thirty cows out of 221 produced over 40 lbs. fat during July. The average of all cows was 25.3 lbs. fat. The condensery paid $1.70 a hundred for milk and the creamery paid 44 cents a pound for fat.—C. H. Blivin.

Wisconsin Associations

Wisconsin reports 168 cow testing associations in operation as of July 1, 1924, an increase of 17 over the previous year. On that date it had 76,101 cows on test for 4,471 members, with an average of 27 herds and 453 cows to an association and an average of 17 cows to the herd. Fifty out of the 71 counties in the state now have one or more associations, Clark County heading the list with ten associations.

Cow testing work was started in Wisconsin in 1906 by the Wisconsin Dairymen's Association. Since that time over half a million cows have been placed on yearly test for some 33 thousand farmers in 1,143 regularly organized cow testing associations. The men actively engaged in the work are H. C. Searles (organizer of the first association), Erwin Sutton, and A. J. Cramer. It is



MICHIGAN'S HIGH HERD

The above cow is a member of the herd of seven pure-bred Holsteins owned by C. E. Burke that took first place among all herds in Michigan this year with an average production of 14,472 lbs. milk containing 513.6 lbs. fat. Last year this herd averaged 12,152 lbs. milk containing 425.5 lbs. fat. The cow shown above contributed 16,148 lbs. milk containing 623 lbs. fat to making the average for the current year. Mr. and Mrs. Burke are shown at the right, their son at the left, and Tester Hans Kardell at the rear.

from the latter's annual report that we glean the following data:

Production Secured Past Year

Reports were secured from 150 associations, 109 of which were able to report on a year's completed work. There were 49,372 cows in 2,943 herds that averaged 7,106 lbs. milk, 3.84% fat, and 273.2 lbs. fat. This illustrates the quality of the cattle and the service rendered by these associations, when we remember that the average cow in the United States is credited with 160 lbs. fat and the average cow in Wisconsin with 190 lbs. fat.

Figuring butterfat at 40 cents per pound, the average Wisconsin C. T. A. cow makes her owner $33.20 more money per year than the average untested cow. If all of Wisconsin's cows were as efficient as the average C. T. A. cow, this increase in butterfat value would put $73,304,400 more in the pockets of Wisconsin farmers each year. Under favorable conditions each of the 178,000 farmers in Wisconsin would then receive a $412 larger milk check from his herd each year.

Eighteen associations report an average yearly production per cow of over 300 lbs. fat, the Richfield Association heading the list with an average of 9,849 lbs. milk containing 341 lbs. fat.

There were 535 herds in 61 associations reported with an average of over 300 lbs. fat a year; or 18% of all herds. Twenty-five associations report one or more herds with a yearly herd average of over 400 lbs. fat, the herd of Leo Kuhl & Son of the Hazel Green Association leading the list with an average of 15,118 lbs. milk containing 534.5 lbs. fat for 13 pure-bred Holsteins.

There were 4,185 cows in 105 associations reported with a yearly production in excess of 365 lbs. fat, seventeen associations reporting one or more cows with records in excess of 600 lbs. fat. The highest producing cow for the year was found in the Kuhl herd. She is a pure-bred Holstein with a record of 22,914 lbs. milk, 3.66% fat, 839 lbs. fat.

Sires in Use

There were 190 grade or scrub bulls reported in use, or 5.1% of the 3,929 bulls in service. This is an excellent record as compared with the estimate of 60% scrub bulls in the state as a whole. Holstein bulls head 2,310 cow testing herds, or 63% of the 3,739 pure-bred bulls. Guernseys are second with 997 and Jerseys third with 195. During the year, 148 pure-bred bulls replaced grade sires, a total of 815 pure-bred bulls having been purchased by association members. There were 72 associations that reported no grade or scrub bulls in use.

Unprofitable Cows

During the year 5,542 cows were sold to the butcher as unprofitable, or 9.5%. There were 3,714 cows sold for dairy purposes, and 582 pure-bred bulls were sold on the basis of the cow testing association records of their dams. Advanced Registry testing is done by 98 members in 68 associations.

During the year 1,710 herds out of 1,429 were tested for tuberculosis, 1,325 of which showed no reactors. There were 1,304 herds on the state and federal accredited list as free of tuberculosis, or 39% of the 3,375 herds on which a report was received. There were 1,793 members reporting that sold whole milk as compared with 1,828 who sold cream.

Feeding Practices

Cows on pasture were fed grain in 2,310 herds, silage in 732 herds, and soiling crops in 423 herds. There were 2,363 members who grew alfalfa as compared with 776 who grew timothy for cow feed. Soy beans for hay was grown by 552, and for grain by 152. Commercial mixed feed was purchased by 1,482 members, with 832 buying feed co-operatively at an estimated saving of $15,328. Grain was fed to dry cows by 2,190 members, or 60% of those reporting.

Activities of Testers

Testers in 51 associations report 176 retests on high cows. In 30 associations, 970 soil samples were tested. There were 54 testers that helped in organizing calf clubs and attended 134 meetings. Reports by 116 associations showed that they had held 313 meetings during the year. Testers made 6,393 skimmilk tests, finding 388 separators not operating correctly. Three associations made milk sediment tests. Forty-nine testers published a printed annual report of their associations, 88 helped to reorganize their associations, and 104 helped members in the sale of surplus cattle.

Equipment on Farms

The following is a partial statement of how the 4,000 farms of members reported on were equipped:

Buildings: 3,743 members owned 4,591 silos; 1,856 had milk houses; 552 had ice houses.

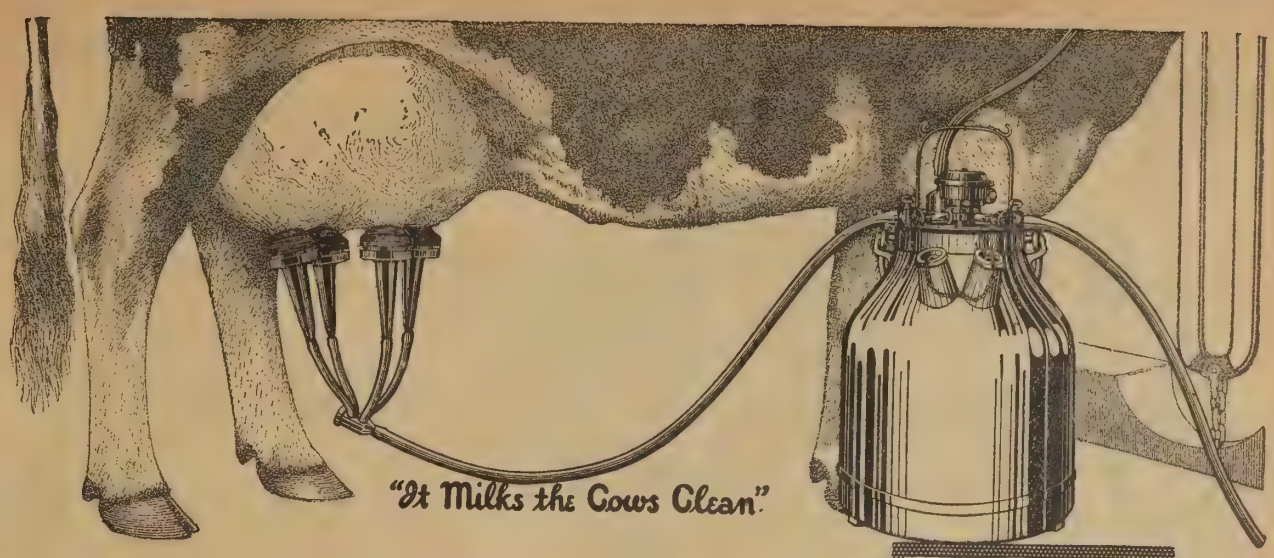
Barn Equipment: 1,884 whitewashed interior; 1,007 had milking machines; 2,600 had drinking cups; 1,267 had ventilation; 2,775 had steel stalls; 1,191 had electric lights; 3,723 had autos; 675 had trucks; 1,289 had tractors.

House Equipment: 1,191 had electric lights; 1,069 had running water; 662 had bathrooms; 3,427 had phones; 247 had radios; 1,394 had furnaces; 1,158 had power washers; 642 had electric or gasoline flat irons; 93 had pressure cookers; 39 had tea carts.

Purchases Made

The following was new equipment purchased and on which a report was asked: 288 members installed drinking cups; 80 installed barn ventilation; 206 bought steel stalls; 167 bought milking machines; 229 built silos; 73 built milk houses; and 67 built barns.

Says Sam: Brevity but not abruptness is the best telephone manners.



Four Reasons
Why You Should Buy a Burrell

In choosing a milking machine, set your standards high. Demand that it milk your cows clean, that it develop the milk-giving ability of your cows and that it draw the milk in a sanitary way. These are the prime requisites of correct milking—all other features are either incorporated in them or are secondary to them.

"But", you ask, "are all of these demands obtainable?" They are—in the Burrell Milker. And the four mechanical features which make them obtainable constitute *four reasons why you should buy a Burrell.* They are: (1) The Burrell Positive Relief Pulsator which produces sharp, definite periods of relief and suction on the teats; (2) The Burrell Automatic Controller which regulates the suction to the requirements of the individual cow or to the need of any cow at any particular point in the milking; (3) The Burrell Air-Cushion Teat Cup which, by means of the cushion of air, compresses and supports the teat so as to avoid inflaming the tissues; (4) The Burrell Moisture Trap which makes it impossible for moisture to travel back from the vacuum line into the milker pail.

If you will maintain your demands for the utmost obtainable in a milking machine, you will buy a Burrell. It is backed by more years of experience than any other power milker on the market, and stands today as the most perfect. And an installation will cost you less than you probably think. Moreover, the Burrell Milker will prove profitable on a fewer number of cows than you may think. Besides, the Burrell way is the perfect way to milk. Let us talk it over.

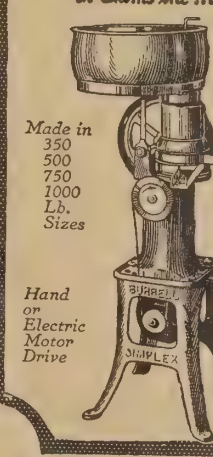
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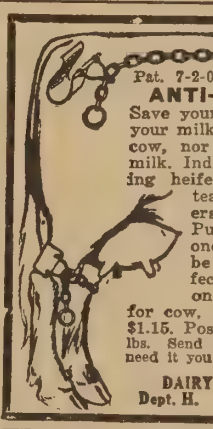
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MILKING MACHINES AND CREAM SEPARATORS



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FACTS ABOUT A FAMOUS FAMILY



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The motor bus has made possible the consolidated school—modern, sanitary, with better trained and better paid teachers—serving families for miles around.

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General Motors cars, trucks and Delco-Light products may be purchased on the *GMAC* Deferred Payment Plan. Insurance service is furnished by General Exchange Corporation.

The Wisconsin State Fair

(Continued from page 208)

nary. Senior and grand champion female—Jefferson County Asylum on Madam Artis Wayne Denver. Junior champion female—Baird Bros. on Nockdair Model Canary Parthenia.

Aged herd—Jefferson County Asylum, Young herd—Jefferson County Asylum. Calf herd—J. D. McDonald. Get of sire—Jefferson County Asylum. Produce of cow—Agricultural School Farm, Wisconsin. Four cows in milk—Jefferson County Asylum.

Guernsey

Judge: R. S. Hulce, Wisconsin.

Bull 3 years old or over—Roy Burton and Son, Wisconsin, on Arion of Edgemoor. Bull 2 years and under 3—C. J. and W. A. Connell, Wisconsin, on Defender of Waddington. Senior yearling bull—Wm. Larson Canning Co., Wisconsin, on Rose's Boy of Fern Dell. Junior yearling bull—F. J. Rueping, Wisconsin, on Corium Cherub's Edgar. Senior bull calf—D. D. Tenny Minnesota, on Cherub's Contender of Shorewood. Junior bull calf—F. J. Rueping on Corium Ladock Prince's Forest.

Senior and grand champion bull—Roy Burton and Son on Arion of Edgemoor. Junior champion bull—F. J. Rueping on Corium Cherub's Edgar. Cow 5 years old and over—F. J. Rueping on Polly of Hillsdale.

Cow 4 years old and under 5—Wm. Larson Canning Co. on New Hope Edna. Cow 3 years old and under 4—F. J. Rueping on Floridale Merry Maid. Heifer 2 years and under 3—D. D. Tenny on Cherub's Lassie of Shorewood. Senior yearling heifer—F. J. Rueping on Corium Elizabeth's Dolores. Junior yearling heifer—D. D. Tenny on Honor's Canterbury Cherub. Senior heifer calf—Wm. Larson Canning Co. on Drusetta of Fern Dell. Junior heifer calf—F. J. Rueping on Corium Ladock Jenny's Fern.

Senior and grand champion female—F. J. Rueping on Polly of Hillsdale. Junior champion female—Wm. Larson Canning Co. on Drusetta of Fern Dell.

Aged herd—F. J. Rueping. Young herd—F. J. Rueping. Calf herd—F. J. Rueping. Get of sire—D. D. Tenny. Produce of dam—F. J. Rueping. Four cows in milk—F. J. Rueping.



SLEEPER'S MAID, SENIOR AND GRAND CHAMPION JERSEY COW AT WISCONSIN STATE FAIR
OWNED BY A. H. GOSS, MICHIGAN

Jersey

Judge: R. S. Hulce, Wisconsin.

Bull 3 years old or over—F. D. Underwood, Wisconsin, on You'll Do's Handsome Raleigh. Bull 2 years and under 3—The Oaklands, Michigan, on Blond's Xenia Sultan. Senior yearling bull—E. A. Douglas, Wisconsin, on Salonica's Fancy. Junior yearling bull—W. S. Dixon, Wisconsin, on Jap's Giltedge Chief. Senior bull calf—F. D. Underwood, Wisconsin, on Fewacres Bill Dod. Junior bull calf—The Oaklands on Vedas Oxford Witch.

Senior and grand champion bull—The Oaklands on Blond's Xenia Sultan. Junior champion bull—F. D. Underwood on Fewacres Bill Dod.

Cow 5 years old or over—The Oaklands on Sleepers Maid. Cow 4 years old and under 5—Cedar Crest Farm, Illinois, on Raleigh's Value. Cow 3 years and under 4—W. S. Dixon, Wisconsin, on Gipsy Lassie Anonan. Heifer 2 years and under 3—The Oaklands on Xenia's Bowlina. Senior yearling heifer—W. S. Dixon on Number 232. Junior yearling heifer—W. M. Knight, Wisconsin, on Majesty's Ixia's Orange. Senior heifer calf—The Oaklands on Oakland's Jersey Pride. Junior heifer calf—P. G. Warmington, Wisconsin, on Oxford Raleigh's Madge.

Senior and grand champion female—The Oaklands on Sleeper's Maid. Junior Champion female—W. M. Knight on Majesty's Ixia's Orange.

Aged herd—The Oaklands. Young herd—The Oaklands. Calf herd—The Oaklands. Get of sire—The Oaklands. Produce of dam—P. G. Warmington. Four cows in milk—The Oaklands.



CAVALIER'S PING PONG, SENIOR AND GRAND CHAMPION, AYRSHIRE BULL AT WISCONSIN STATE FAIR
OWNED BY ADAM SEITZ & SONS, WISCONSIN

Ayrshire

Judge: A. J. Cramer, Wisconsin.

Bull 3 years old or over—Adam Seitz and Sons, Wisconsin, on Cavalier's Ping Pong. Bull 2 years and under 3—Adam Seitz and Sons on Cavalier's Sherry Redmand. Senior yearling bull—Daniel Hanrahan, Jr., Wisconsin, on Ace of Hearts. Junior yearling bull—H. M. Wallis, Wisconsin, on Champion of Wallis Farm. Senior bull calf—H. M. Wallis on Bruce of Wallis Farm. Junior bull calf—Adam Seitz & Sons on Spring City Fashion Plate.

Senior and grand champion bull—Adam Seitz and Son on Cavalier's Ping Pong. Junior champion bull—H. M. Wallis on Champion of Wallis Farm.

Cow 5 years old or over—H. M. Wallis on Lucindy of Spring Castle 2nd. Cow 4 years old and under 5—Adam Seitz and Son on Cavalier's Luxury. Cow 3 years old and under 4—Adam Seitz and Son on Cavalier's Lixxie Lindsay. Heifers 2 years old and under 3—adam Seitz and Sons on Cavalier's Stuart Queen. Senior yearling heifer—Adam Seitz and Sons on Cavalier's Silver Actress. Junior yearling heifer—Adam Seitz and Sons on Cavalier's Darling. Senior heifer calf—Adam Seitz and Sons on S. C. Red Lola. Junior heifer calf—Wm. Nisbet and Son, Wisconsin, on Daisy of Fernbrook 2nd.

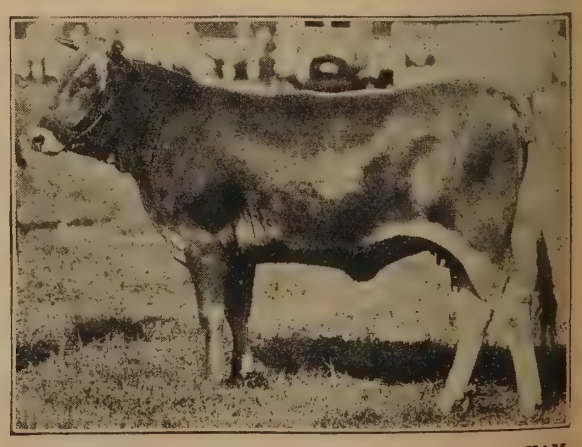
Senior and grand champion female—H. M. Wallis on Lucindy of Spring Castle 2nd. Junior champion female—Adam Seitz and Sons on Cavalier's Silver Actress.

Aged herd—Adam Seitz and Sons. Young herd—Adam Seitz and Sons. Calf herd—Adam Seitz and Sons. Get of sire—Adam Seitz and Sons. Produce of dam—Adam Seitz and Sons. Four cows in milk—H. M. Wallis.

Brown Swiss

Judge: Geo. Humphrey, Wisconsin.

Bull 3 years old or over—Jubilee Farm,



MARVEL M'S 2ND HAZEL, JUNIOR AND GRAND CHAMPION BROWN SWISS HEIFER AT WISCONSIN STATE FAIR
OWNED BY N. C. SCHMID, WISCONSIN

Illinois, on Jubilee Brownie Boy. Bull 2 years and under 3—N. C. Schmid, Wisconsin, on College Lee. Junior yearling bull—N. C. Schmid on Maiden's Vronicka's College. Senior bull calf—N. C. Schmid on Nelliemilitor. Junior bull calf—Lila Schmid, Wisconsin, on Maiden's Master.

Cow 5 years old or over—N. C. Schmid on Cinnamon's Maiden. Cow 4 years old and under 5—N. C. Schmid on Mollie's Nellie. Cow 3 years old and under 4—N. C. Schmid on Insurance Rosa. Heifer 2 years old and under 3—N. C. Schmid on Brown Ethel. Senior yearling heifer—N. C. Schmid on Marvel M's 2nd Hazel. Junior yearling heifer—N. C. Schmid on Mernervie of Meadow Green. Senior heifer calf—Jubilee Farm, Illinois, on Jubilee Eldred Springtime. Junior heifer calf—Jubilee Farm on Jubilee Medor Penelope. Senior champion bull—N. C. Schmid on College Lee. Junior and grand champion bull—N. C. Schmid on Maiden's Vronicka's College Boy. Senior champion female—N. C. Schmid on Cinnamon's Maiden. Junior and grand champion female—N. C. Schmid on Marvel M's 2nd Hazel.

Aged herd, young herd, calf herd, get of sire, produce of dam—N. C. Schmid.

Four cows in milk—N. C. Schmid.

What Becomes of 559 Student Judges

The sixteenth annual students' cattle judging contest will be held at the National Dairy Exposition, opening in Milwaukee, Wis., on Sept. 27. A resume of the work done in past years by federal agricultural authorities shows some interesting facts concerning those who have taken part in these contests.

A total of 559 student judges who competed have been reported on. Of this number, the occupation of 56 is unknown, and 10 have died, leaving 493 for which information is available. One hundred seventy-eight, or thirty-six per cent are engaged in educational work. Of these, 18 are professors and 5 assistant professors in agricultural colleges; 13 are instructors or assistants; 17 are engaged in extension work; 8 are with the U. S. Department of Agriculture, and the remainder are instructors in agricultural or extension work other than animal husbandy or dairying. There are forty-five county agents. A total of 167, or 34 per cent are practical farmers; 12 are in public service work; one is president of a breed association; two are secretaries of such organizations; 10 are in the creamey business; 3 in the dairy supply business; 5 in the ice cream business; 8 in the retail milk business; 4 dairy inspectors, and one secretary of a state dairy association.

This year, in connection with the national Dairy show in Milwaukee the sixteenth annual students' judging contest will offer similar opportunity for teams of three men each to represent their respective colleges. Besides the experience obtained in judging cattle, there are valuable prizes being offered, including two $400 scholarships, 7 silver trophies, 3 medals, 1 plaque and 3 canes.

Minnesota Dairy Courses

W. B. Combs, professor of dairy husbandry, will have charge of the annual dairy short courses of the University of Minnesota which will be held at University Farm, St. Paul, Minn., as follows:

Advanced ice cream makers, nine days, November 17 to 26.

Advanced creamery operators, two weeks, December 1 to 13.

Creamery operators, six weeks, January 5 to February 11.

Members of the dairy division faculty at University Farm and men prominent in the manufacturing of dairy products will compose the instructional staff. The facilities for the three courses will be better than ever. The new dairy building, fitted with special laboratories and thorough modern equipment, will be available for use. Instruction in the manufacture and handling of butter, cheese, ice cream, and market milk will have the advantage of all modern devices.—Minnesota College of Agriculture.

Maryland Dairy Courses

The Maryland College of Agriculture offers a one week's course in testing milk and cream, December 29th to January 3rd; and a four weeks' course in dairy production or dairy manufacture, January 5th to 31st., 1925.

The purpose of the testing course is to supply milk and cream testers for milk plants and creameries; the production course to provide cow testers for Association and Advanced Registry work, and provide farm boys with information concerning dairy improvement; and the manufacturing course to supply training to those interested in farm butter making and in factory work.

The requirements for entrance are that the applicants be at least 18 years of age and have a good common school education. No entrance examination is required. Persons having practical experience on the farm or who are working in milk receiving stations or milk plants should derive the greatest benefit from these courses. No tuition is charged to residents of Maryland. A fee of $5 to cover cost of materials supplied in the various laboratories is assessed in this three weeks' course.

Room and board may be had with private families for from $10 to $15 per week. For additional information address inquiries to Dairy Husbandry Department, Unversity of Maryland, College Park, Maryland.

Uncle Ab says the man who is too easily satisfied has a pretty dull life.

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No expense for tearing off the old shingles. You can start right to work laying your new roof. Picture shows the beautiful effect produced by the Hexagonal Method of laying Asbestos Shingles.



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The success of this Johns-Manville method has been so great that others have taken up the cry and often recommend unreliable materials for re-roofing in this way.

Remember this:—Be sure you lay some type of Johns-Manville Asbestos Shingles over the old roof. In that way you will insure your roof against fire and weather—and you will never have to re-roof again.



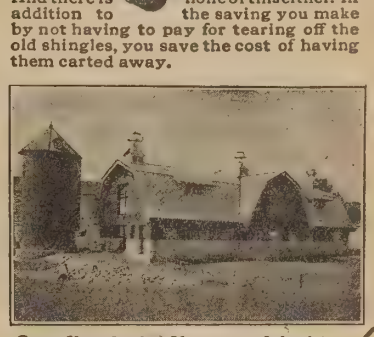
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None of this when you don't have to tear off the old shingles. No broken flower gardens, nor littered lawns.



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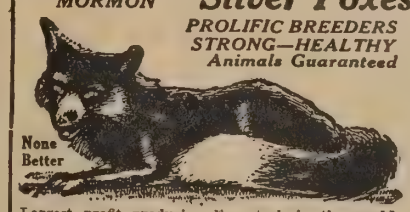
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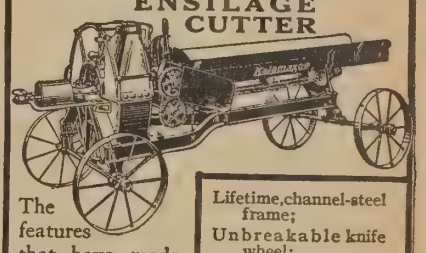
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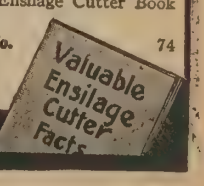
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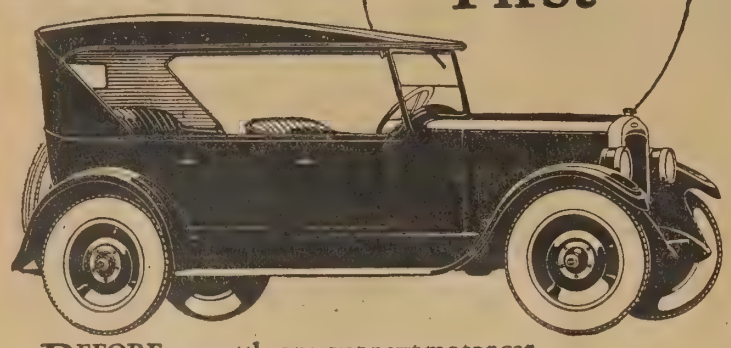
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Oil an Aermotor once a year and it is always oiled. It never makes a squeak.

The double gears run in oil in a tightly enclosed gear case. They are always flooded with oil and are protected from dust and sleet.

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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

The American Home and Its Government

HOARD'S DAIRYMAN:—The American home in its ideal state is almost spiritual or divine. It is a true embodiment of faith, hope, and charity, the latter most of all. It, in its proper state, represents justice and liberty, justice to one another and willingness to go more than half way and no one shirking his own duties; liberty in everything in so far as it does not interfere with the liberties of others or that which is just or God's law. In most things, man's own conscience must be the first and most serious judge of his own actions. Such a home is of more value than any or all false gods of pleasure, greed, dominion, or lust can give. It is excelled by nothing but the divine home. It is this home some would destroy. Not being capable of taking up their responsibilities of a home, they would prevent others from doing so. Sometimes their methods are the most base and hypocritical.

The wolf in sheep's clothing is never more in evidence than in those measures advocating all kinds of new laws and changes in our government and constitution without due consideration and reason. Not that new principles should not be advocated by those who sincerely believe them. The one who advocates new things, even though unsound in principle, is usually a thinker, one of the many who would help to over-rule other false ideas. The agitator is not to be despised (if sincere) for we need more agitation. It is the false idea he may advocate that is to be spurned and turned down after due consideration. But the individual who hates to think, who is juggling his life away, is truly a thing to be spurned and despised. In his laziness of mind he is the real destroyer of our homes and our government. It is this large class who hate to think, who do not realize that new laws to reinforce the old constitution in the spirit of it, are necessary to prevent lust and greed from taking complete control.

Michigan. R. W. STEED.

No Intention of Misleading Farmer

HOARD'S DAIRYMAN:—Answering V. E. Musgrove's letter in O. B. and B. columns June 20 issue, I have no intention of misleading the farmer and I feel that the farmer has too much at stake to afford to be misled by organized labor. All who labor, either with brain or hand, belong to the ranks of labor, hence you are right to the extent that the Farm Bureau is a kind of organized labor. It is unfortunate that a large part of our people have been organizing to protect or forward special interests but such is a fact and it now remains for the farmers to organize on local and commodity lines, have a national representative such as the Farm Bureau, and thus help to complete "The Vicious Circle". If one class gets more than it should have, another must take less and organized labor has been getting more than its share because of the unorganized condition of farmers and other members of our citizenship.

No labor organization should form a political party. The province of government is to keep the door of opportunity open to *all* of us and to do that it must see that no class gets more than its fair share.

The present policy of organized labor to restrict production, to compel the payment of excessive wages for inferior service, and to shorten the hours of labor unreasonably has caused the price of commodities to rise so high as to be beyond the limit of the farmers' purchasing power, as while labor is highly protected by our immigration laws and a high protective tariff and has an organization amply capable of taking advantage of the opportunity thus opened to them. The farmer has no such organization and his products are protected very slightly in said tariff and he must sell on a bear market and the largest bear he has to contend with is organized labor which gets him "goin' and comin' ".

During the war, when organized labor was dominant at Washington when it came to setting a price on wheat, they compelled the committee to set a price of $2.26 at Minneapolis when cash wheat was then selling there at $3.50 per bushel and they continued to harass the country by strikes for even increasing wages. During our last session of Congress organized labor was perfectly willing to allow laws passed that would aid the farmer in diversified farming (which means 12 to 14 hours per day against the 6 hours he demands) but when it came to the McNary-Haugen Bill, which would have afforded some temporary relief, they were instrumental in killing the bill. May the scales soon fall from the farmers' eyes and may they unite in an organization of their own.

Minnesota. H. E. O.

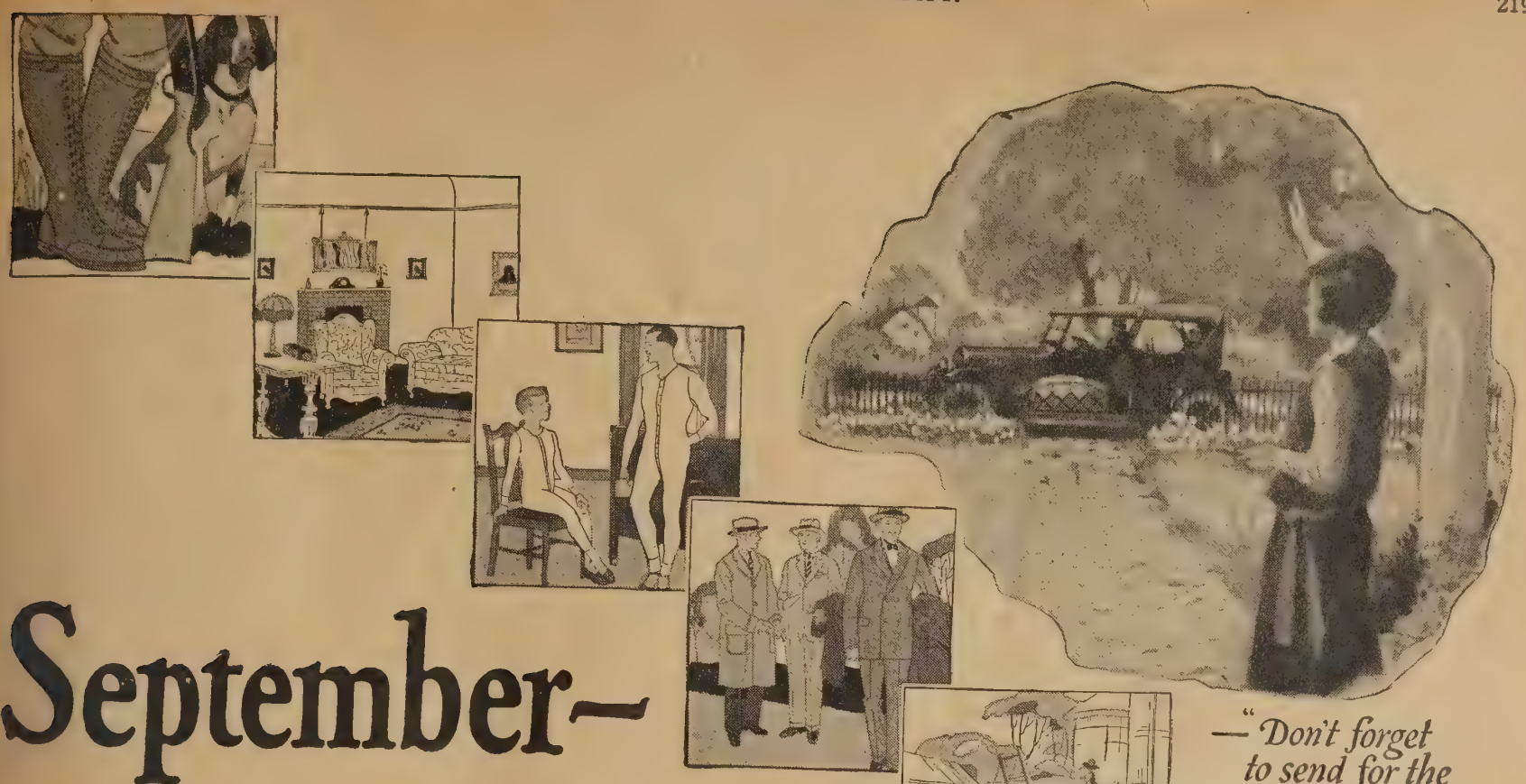
What Good Is the Pool?

HOARD'S DAIRYMAN:—It was with amusement that I read your editorial about the farmer that turned his cream separator backward and lost a lot of cream. I have seen a good many separators, and have never yet seen one that you could turn backward. If you think he lost a lot, what do you think about the dairymen that have pooled their milk? Why does not a dairy paper like yours expose such frauds?

In Wyoming County, New York, the Merrell-Soule Co. buys most of the milk. That company, for the month of June, paid to the pool $1.58 per hundred for 3 per cent milk. The pool paid the farmer $1.13 for the same milk. What became of the 45c? Butterfat for the same month was selling for from 41c to 43c in Buffalo, and I have the papers to prove this. $1.13 for 3 per cent milk would be 37⅔c for butterfat. The farmer, you see, lost about 4½c on every pound of butterfat, also all his skimmilk. Many farmers are paying 25c per hundred for hauling, which reduces the price to 88c per hundred or less than 30c for fat.

Is a combination of dealers and pool officials a benefit to farmers? The pool has been in operation over three years. Now if you or anyone else can tell me what good the pool is doing the dairymen, I will be anxious to hear it. Cheese factories or creameries pay higher prices than the pool does in western New York. The dairy business is doomed unless this combine can be broken.

New York. A READER.



September—

A good time to take care of your Fall needs—Send your orders now to the World's Largest Store

—"Don't forget to send for the New Sears, Roebuck Fall Catalog"

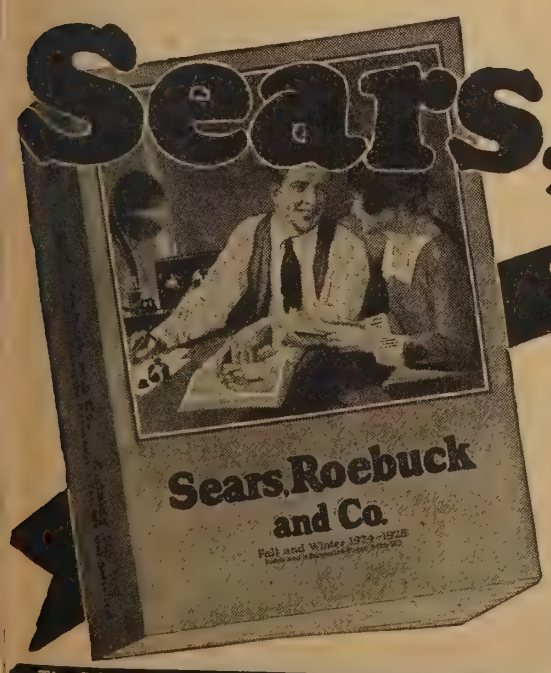
Everything is at its best in September!

The Golden Indian Summer days—the best of all the year—carry with all their beauty a suggestion of the colder weather to come.
Time to prepare for Winter!

OUR SUPPLY of the things you need for fall and winter is most complete. Values are the greatest in years. If you need wearing apparel for any of the members of your household, if you need new furniture, rugs or furnishings for your home, if you would like labor saving equipment for farm or shop, if you want a radio, a gun or a tire—our new General Catalog for fall and winter has it for you at the lowest prices.

The quality of Sears-Roebuck goods has long been recognized by our eight million customers. They know that we were the first to guarantee merchandise and the first to equip a laboratory to make certain that the goods were of the proper quality. We'd like to have you test our merchandise. We know you will find it the best that can be had at anywhere near the price. And we guarantee it!

Our catalog of 35,000 bargains is ready. If you haven't already received your copy, use the convenient coupon below.



Sears, Roebuck and Co.

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We guarantee to satisfy you and save you money

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The World's Largest Store gives you the best service! 99 out of every 100 orders are shipped within twenty-four hours after we receive them.

That's Service!

The Worlds Largest Store owns and operates Station W.L.S. Wavelength 345 Meters. Tune in

Mail the coupon TODAY to the store nearest you

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Send Latest General Catalog.

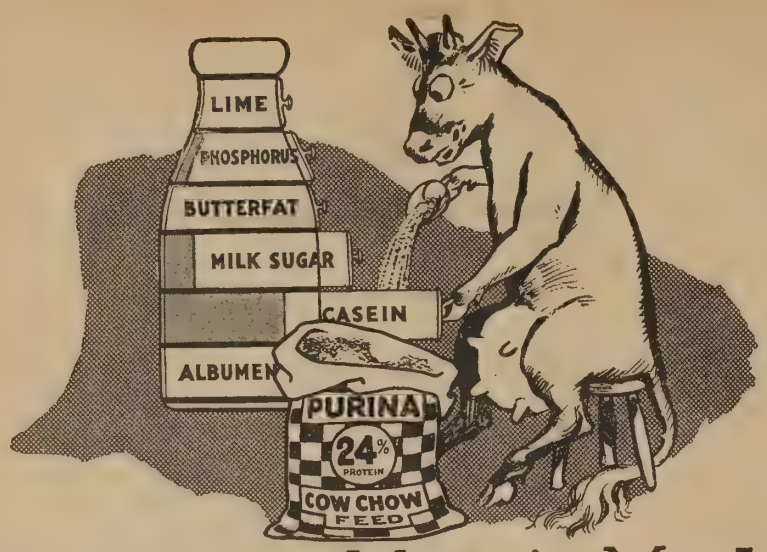
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How Extra Milk is Made

"Why do I get two extra quarts of milk a day from every cow on Cow Chow?", wrote a well known milk producer.

HOME grown feeds are necessary for cheap milk production, but they contain too much of some milk materials and not enough of others.

Adding the right amount of Cow Chow rounds out the home grown feeds so that they make the most possible milk and still keep the cow in good condition. Every one of the different materials in milk is provided in Purina Cow Chow. That's why it makes a half a gallon more milk per cow per day.

We don't ask you to believe it. We ask you to prove it. We'll supply the record sheets free and we'll lend you the milk scales to weigh the extra milk. Order Purina Cow Chow from your dealer. It makes more milk at a lower cost per gallon.

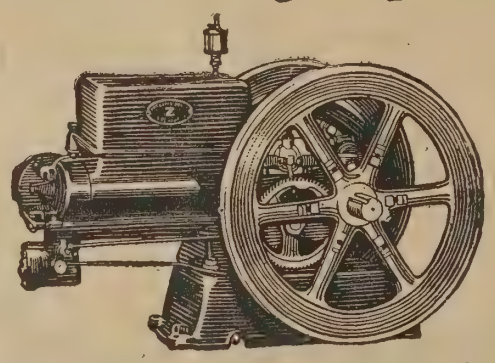
Write for the 100 page Purina Cow Book — free

PURINA MILLS, 900 Gratiot St., St. Louis, Mo.

Other mills at E. St. Louis, Nashville, Buffalo, Kansas City, Ft. Worth, Minneapolis

Go to the National Dairy Show --- Call at the Purina exhibit

New "Z" Engine prices



19% *below* 1913 *level*

"Z" engine prices are lower than farm product prices *today*. Horsepower for horsepower, you can buy the famous "Z" with fewer bushels of wheat; less cotton; fewer hogs—than were required to buy the Fairbanks-Morse engine of 1913.

Remember, this is a genuine "Z", famous for its dependability—its economy. More than 1,250,000 horsepower now in farm service. Quantity production, engineering skill and careful manufacture have been combined to give you a better engine at a lower price. See the Fairbanks-Morse dealer in your town.

FAIRBANKS, MORSE & CO.

Manufacturers • Chicago

Today's Prices:

1½ h.p. Battery equipt $48.50

3 h. p. Battery equipt $83.50

1½ h.p. Magnetoequipt —uses kerosene $58.50

3 h. p. Magneto equipt —uses kerosene $98.50

6 h. p. Magneto equipt —uses kerosene $153.50

F. O. B. Factory Add freight to your own town

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

DAIRY MARKET NEWS

August Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers or 3.5 per cent milk delivered at factories during August is based on reports made by condensed and evaporated milk firms:

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$1.87	$1.87
Middle Atlantic*	15	1.64—2.62	1.83
South Atlantic	1	2.32	2.32
E. No. Central	70	1.44—2.60	1.63
W. No. Central	4	1.57—1.65	1.60
North Western	13	1.44—1.64	1.61
South Western	9	1.53—1.75	1.60
United States	113	1.44—2.62	1.66

*Sixty-one additional factories reported prices to be based in part on the current month's wholesale butter quotations. Twenty-two factories reported prices not determined, and nine reported plants closed.

The July price at factories in the Middle Atlantic Section not included in the previous report averaged $1.71 per cwt, for 3.5 per cent milk in the 201-250 mile freight zone from New York City.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for July:

	Range	Ave.
Condensed, per case	$5.20—$6.55	$5.76
Condensed, per cwt.	6.90—10.75	9.57
Evaporated, per case	3.35— 4.80	3.89
Evaporated, per cwt.	7.47—15.00	9.10
Condensed skim, per cwt.	4.50— 7.60	5.84
Evaporated skim, per cwt.	2.00— 7.60	4.08

Butter Prices for August

The following table is compiled from daily quotations by the U. S. Department of Agriculture and covers the average wholesale prices during August on 92-score butter (extras) at four of the principal markets, together with the receipts and storage holdings at these markets:

	Ave. Price Aug. 1924	Aug. 1923	Receipts Aug. 1924	Aug. 1923
	cents	cents	tubs	tubs
Chicago	36.6	42.9	341,811	249,679
New York	38.4	44.0	336,050	282,884
Boston	38.6	44.0	119,717	107,552
Philadelphia	39.1	44.9	95,017	78,112
Total receipts for August			892,595	718,225
Total receipts since Jan. 1			6,753,612	6,184,961
Storage holdings			1,376,533	836,886

Ninety-score butter averaged 35.3 cents for August in Chicago, with centralized butter at this market selling for 36.1 cents. Jobbers' prices on extras sold to retailers averaged 39.1 cents in Chicago and 42 cents in New York.

Butter Markets

(U. S. Department of Agriculture)

Butter markets nervous and unsettled during the week ending August 30. Scarcity of fancy quality the only sustaining influence. Production still running fairly heavy and prospects good for heavy fall make. Foreign situation important, with possibility of export rather than import, although no real business.

The average wholesale prices on 92-score butter for the week ending August 30, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Aug. 30 1924	Aug. 23 1924	Aug. 30 1923
	cts.	cts.	cts.
New York	38.6	39.1	45.0
Chicago	36.9	37.0	44.4
Philadelphia	39.2	39.8	45.7
Boston	39.0	39.3	45.0
San Francisco	40.7	40.2	47.0

The receipts of butter at these markets were 15,531,307 lbs. for the week as compared with 15,517,521 lbs. for last week and 13,552,674 lbs. for the corresponding week a year ago.

Cheese Markets

(U. S. Department of Agriculture)

Cheese markets steady. Most business at primary markets. Production said to have been temporarily reduced somewhat on account of weather conditions and flies. Distributing markets quiet and irregular.

The average wholesale prices on American cheese, style Twins, for the week ending Aug. 30, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Aug. 30 1924	Aug. 23 1924	Aug. 30 1923
	cts.	cts.	cts.
New York	20.7	21.0	25.7
Chicago	18.8	18.9	23.7
Boston	21.2	21.2	26.6
San Francisco	19.0	18.9	26.1
Wisconsin Boards	18.7	18.1	24.1

The receipts of cheese at these markets for the week were 4,368,757 lbs. as compared with 4,107,103 lbs. a week ago and 4,614,563 lbs. a year ago.

Cheese Markets

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese (style Twins) for three of the large markets in August.

	Average Price Aug. 1924	Aug. 1923
	Cents	Cents
Wisconsin Boards	18.5	23.1
Chicago	19.1	23.0
New York	—	25.1

Longhorns averaged 19.4 cents in August on the Wisconsin Boards as compared with 18.3 cents in July and 24.1 cents in August a year ago. The receipts of cheese at Chicago, New York, Boston and Philadelphia totalled 140,544,331 lbs. for the first eight months of the year as compared with 142,572,280 for the same period last year. Storage holdings at these markets on Sept. 2 were 24,321,519 lbs. as compared with 22,615,748 lbs. a year ago.

July Powdered Milk

(Report by U. S. Department of Agriculture)

Producers supplying powdered milk plants during July received from $1.55 to $1.75 a hundred for 3.5 per cent milk. These plants pay from 15c to 32c a hundred for skimmilk and from 6c to 18c a hundred for buttermilk.

During July powdered whole milk sold for 56c to 60c per pound as case goods and for

Carload Prices of Hay, Straw, and Feed, Aug. 30, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	29 50	29 00		21 00		25 00	26 75	24 00	19 00	26 00	19 50	26 50		16 00	
No. 1 Clover, mixed	20 50								18 00	18 00	18 00			15 00	
No. 1 Clover									19 50	15 00		16 00		15 50	
No. 1 Alfalfa		25 50			30 00	28 00	27 00		26 00	24 00	23 00	15 00	16 00	20 00	27 00
Standard Alfalfa		20 00			24 00	26 00	25 00			20 00	19 00		13 50	18 50	26 00
No. 2 Alfalfa		15 50			20 00		21 00		24 00	16 00	14 00			16 50	25 00
Oat Straw	13 00	14 00			12 50				12 00	12 00	9 00				
Feed—Bagged															
Wheat Bran					31 50	34 00			28 50	28 00	23 50				
Spring	31 75		31 00		33 00	34 50		26 50	29 50			25 50		22 50	35 00
Soft Winter	33 00		33 00												
Hard Winter	32 00		32 00			34 00		26 00	28 50	26 00		25 00	23 00	22 50	
Wheat Middlings															
Spring (Standard)	34 50		33 75		33 00	36 00			32 00	29 00	26 00				
Soft Winter	39 50		39 00		33 00	39 00			35 00			32 00		29 00	44 00
Hard Winter						35 00			35 00			30 50	29 50	29 00	
Wheat Millrun	34 50		34 00			36 00					26 50			26 00	35 00
Rye Middlings										28 00	24 00				
High Protein Meals									49 00	46 00	44 00	49 00	50 50		48 00
Linseed	52 50		52 25						47 00	47 00	46 50	46 00			
Cottonseed (41%)	50 75		50 00					41 00	44 00	43 50	44 00	43 50			
Cottonseed (36%)	46 25		47 00			39 00		38 00		60 00	60 00	60 00	60 00	60 00	
Tankage (60%)					30 00			28 50	28 00	27 50		26 00	26 50	33 50	32 00
No. 1 Alfalfa Meal					44 50				43 70	40 80	43 90				
Gluten feed	47 95		47 90		46 00	45 00			45 00	43 50	40 00	40 50	40 00		
Hominy feed (white)	48 00		48 00		45 50	45 00			45 00	41 50	40 00		40 00		
Hominy feed (y'llow)	47 75		47 50						41 00	42 50					46 00
Ground barley					40 00					44 50					37 00
Dried Beet pulp															

"Not a Kick in a Million Feet"



Now is the Time

OLD man Procrastination never worries the man who acts in time.

Survey the condition of your buildings—and if there's need—

Build—Repair—Re-Roof now!

THE LEHON COMPANY
44th Street and Oakley Ave.
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Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

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Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



THE H. H. MILLER INDUSTRIES CO., CANTON, OHIO
successors to
Chas. Skidd Mfg. Co.
Janesville, Wis.

21c to 28c per pound in barrels. Powdered skimmilk sold for 40c to 44c per pound as case goods and for 6c to 12c a pound in barrels. Dried buttermilk sold for 8c to 10c a pound in barrels.

Philadelphia Milk Prices

The Interstate Milk Producers' Association announces that the September price for milk will be $2.94 a hundred f. o. b. Philadelphia and $2.19 a hundred at the 210-mile zone. This applies to the basic quantity. For class 1 August surplus, producers will receive $1.99 per hundred f. o. b. Philadelphia and $1.41 per hundred at the 210-mile zone. These prices are based on milk testing 3 per cent fat with a differential of 2 cents for each half point of test.

MILWAUKEE, Sept. 8—Butter—Creamery, extra, tubs, 37c; standards, 36c; extra firsts, tubs, 34@35c; firsts, 32@33c; seconds, 30@31c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 35@35½c. Ordinary firsts, standard cases, 34@34½c; miscellaneous lots, shippers' cases returned, candled, 31@32c; seconds, dirties, 23@24c; checks, 22@23c.

Cheese—American full cream, Twins, 19@19½c; Young Americas, 19½@20c; Longhorns, 19½@20c; Daisies, single, 19@19½c; American, 32c; Pimento, 34c; Swiss, 42c; brick, fancy, 17@18c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

CHICAGO, Sept. 8—The butter market today was steady with an unsettled undertone. Buyers were conservative and showed little interest, and as a result trading was quiet. Receipts were liberal and receivers as a rule were free sellers. The centralized car market was easy and in the buyers' favor. Offerings were liberal on all scores, but buyers were cautious and trading on the whole was quiet.

Fresh butter—92 score, 37c; 91 score, 36c; 90 score, 35½c; 89 score, 35c; 88 score, 34c; 87 score, 33c; 86 score, 32c. Centralized carlots—90 score, 36¼c; 89 score, 34¾@35c; 88 score, 33½@33¾c.

FOND DU LAC, Wis., Sept. 6—Average cheese prices, majority of sales, f. o. b. shipping point: Single Daisies, 19¾c; Double Daisies, 19¼c; Longhorns, 19¾c; Square prints, 20½c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Sept. 6: Single Daisies, 18½c. On Farmers' Call Board, Sept. 6: Single Daisies, 18½c; Longhorns, 19c; Square Prints, 20c.

NEW YORK, Sept. 8—Butter easy; receipts, 5,671 tubs; fresh supply, 69,811 tubs; creamery, extras, 37½@37¾c; specials, 38¼@38¾c.

Eggs—Quiet; receipts, 7,107 cases; fresh supply, 69,062 cases; white, fancy, 55@58c; fresh firsts, 35@44c; western whites, 38@54c.

Says Sam: Sweet clover, unlike goldenrod, is no longer a weed to be sneezed at.

Grain Costs in North Dakota

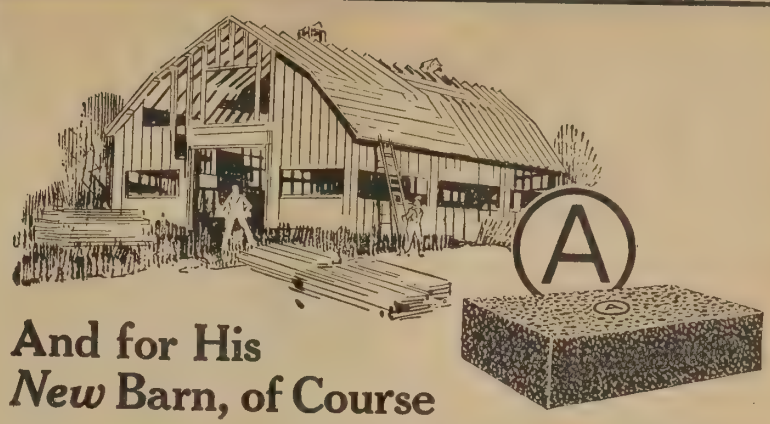
The average cost of producing wheat in North Dakota this year was 81 cents per bushel according to a report just issued by Prof. Willard of the North Dakota College of Agriculture. The same report gives the cost of raising a bushel of rye to be 58 cents and the cost of flax, $1.49 a bushel. These estimates are based on approximately 100 records secured the fore part of August and well distributed over 10 counties of the state.

The costs listed above cover all costs, including rental charge for land and cost of seed, labor, machinery, threshing, taxes, etc. The estimate is based upon an average yield of 15.3 bushels per acre of wheat, 15.2 bushels rye, and 9.8 bushels flax.

New York Jersey Makes Notable Showing

Bess Irene, a Jersey cow, owned by Mr. Geo. W. Sisson, Jr., recently completed a most creditable Register of Merit test. Irene commenced test at eight years, ten months of age and in one year produced 15,210 pounds milk, 916.92 pounds fat. Her average test was 6.03 per cent, mighty good considering that the average of the Jersey breed is 5.36 per cent. She was milked three times a day. This is Irene's third test, she having been first tested as a five-year-old, when she produced 515 pounds of butterfat. Then, as a seven-year-old, she produced 662 pounds butterfat.

One of her daughters, Sayda's Baron's Bess Irene, also in the Sisson herd, recently qualified for a silver medal when she produced, with calf, 651.49 pounds fat at two years, eight months of age.—The American Jersey Cattle Club.



And for His *New* Barn, of Course

JUST about the best testimonial of merit is a reorder. Mr. W. H. Butler, Woodside Farms, Columbus, Ohio, has used Circle A Cork Brick and orders more for his new barn. He *must* be satisfied. Here is his letter of May 28, 1924:

"Some years ago I equipped my cow barn floor with your Cork Brick, and have found it so satisfactory that I am installing it in my new cow barn. I wish you would RUSH shipment of enough brick to cover 630 sq. ft. of floor space."

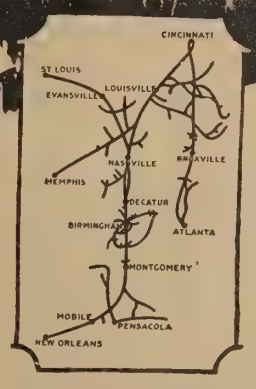
Warm, dry, easy underfoot, sanitary, and durable—no wonder Circle A. Cork Brick floors are being used in more than *15,000 dairy barns.*

Get the 32-page illustrated booklet—Circle A Cork Brick. Sent free with a sample brick. Learn how easy it is to make your barn floor modern. Address Armstrong Cork & Insulation Company, 112 24th St., Pittsburg, Pa.

Ⓐ Circle A Cork Brick Floors Ⓐ
FOR DAIRY BARNS AND HOG HOUSES



Where Feed Costs Less!



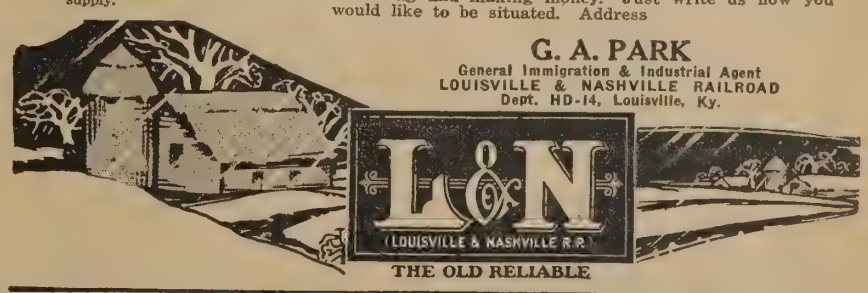
The L. & N. Railroad serves a vast and rich agricultural territory from the Ohio River to the Gulf of Mexico. Along or near its tracks are many communities where dairying and stock raising are highly profitable industries — and where the demand for the products is greater than the supply.

Feed is one of the biggest items of expense in running your business—especially if you have to buy it from someone else. Every extra dollar that you spend for feed means you have one less for profit at the end of the year.

The feed problem is simpler in the South. Here, dairymen and stock raisers can grow most all of the feedstuff they need; cattle graze on green pastures the year 'round, and stall feeding is reduced to a minimum. *Less for feed, more for profits*—that is one reason why dairying and stock raising is highly profitable in many sections of the South.

There is room and a welcome for you in the South. And the L. & N. Railroad will gladly tell you, free of charge, all about conditions and desirable localities for living and making money. Just write us how you would like to be situated. Address

G. A. PARK
General Immigration & Industrial Agent
LOUISVILLE & NASHVILLE RAILROAD
Dept. HD-14, Louisville, Ky.



THE OLD RELIABLE



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Danny Makes a Visit and Some Corn Trees

Foreword—This is the second of the series of short stories on the "Adventures of Daniel Dare". Last week he started up the ladder to the corn club championship of the county by selecting, with his father's help, his seed corn. Watch for the next Daniel Dare story.

Saturday at last. Gee, but the week had gone slow. 'Twas hard starting in school again after three months of outdoor life. Anyhow Daniel Dare thought so. At that, it had been rather an interesting week because in agriculture they had studied corn. Danny had told his classmates about the corn project at home and how he and dad had selected the seed. The teacher thought it great and urged all the boys to grow some corn all their own.

But why all this impatience about Saturday? Oh, that was the day Danny had set for his visit to learn all about curing seed corn. Chores and breakfast over, he jumped on old Prince's saddleless back, and loped off for Jud Brown's place several miles away.

"Hello, Jud," sang a youthful voice. Jud, walking toward the barn, stopped suddenly and turned square around in his tracks.

"Why, Danny! What in tunket be ye doin' here? Hain't lost, be ye?"

"No, indeed. I've got some seed corn to cure, and father said if I wanted to learn the best way I should come over to see you. Will you let me see how you store yours, Jud—please." Jud, though somewhat rough and unscholarly outside, had a heart inside as big as any man.

"Well, tain't much extry thet ye'll be a'seein', but I 'low ye've got the makin's of a champeen, boy. 'Tis true, I've had fool luck with th' corn, an' ef I c'n help ye in any way, then I'm yer Uncle Jud. When yer daddy was a leetle shaver, he used t' c'me over and set on th' hoss when I was a'plowin'—jest hitch yer hoss t' th' fence post. Thar's a leetle grass he c'n nibble at 'round about."

In the twinkle of an eye Danny had done as he was bidden, and was back at the side of his hero of the hour. Throughout the countryside Jud Brown was known as king of the corn growers. It was his specialty. His success had been due to an inborn love for the corn plant, and a consequent great desire for knowledge of the best methods, although his learnin' in other channels was somewhat limited.

The man led the boy to a small, well constructed, two-story frame building. They mounted a rather high step and entered the door. "Ye see, th' step's high 'cause we drive right up here to unload," explained Jud. "This here buildin' used to be part of th' old house. We jest moved her over here and built a new foundation under her. She's about sixteen foot wide and twenty-four long, I guess.

"Ye see, we got two floors here an' a cellar—cement floor in the cellar. These here floors ye see here are made open so's t' let the heat up an' giv' a good circulation of air."

Danny looked hard. He noticed that the floor he was standing on and the one directly overhead were both made of slats about two inches deep, an inch and a half wide, and spaced about an inch and a half apart. He also saw a window in each end of the building.



A "movie" of Danny making his corn trees. For tools he had a hammer, saw, square, pencil, bit and brace, and nails. He got a piece of 2"x4" about 3 feet long which he marked down the middle with pencil and square, then ripped in two with his saw. In the end of each piece he bored a small hole. Then he drove finishing nails about 4 inches in length into the four sides of both pieces. The nails were spaced about 4½ inches apart and driven at a slight upward angle (see upper right picture). He put a piece of baling wire through the hole in the top of the tree by which it could be hung from the rafter in the attic, a good way to fool the rats and mice. In the lower picture you see Danny proudly exhibiting one of his finished corn trees with a few ears on to show you how he did it.

"Th' upstairs is jest like this," and Jud led the way across and up the stairs. Danny noted the same arrangement. Up through the center of both floors and out through the roof went a stove pipe. Again Danny wondered. "Yes, we've got a couple of stoves down in the cellar," Jud went on.

"We husk right out in the field—the seed ears go in one part of the wagon box. Then we unload and bring the ears upstairs in a bushel basket. Cool nights we build a good fire in th' stoves, an let her go out durin' the daytimes. When we got the fire goin', we leave all the winders up and the door open, too, sometimes. Thet's so th' circ'lation of air will be good."

"Ye see, th' heat drives out water from these here ears, an' thet there water's got t' git out somewheres. Onct I left the winders down. The fust thing I knowed, th' corn begun t' git moldy. Well, we lay th' ears out on th' floor so's they git plenty of fresh air. It depends on th' weather, but with a dry spell, a couple weeks of this heat stuff dries 'em out pretty well.

"See them racks there?" He pointed to some wire fixings on the floor over in one corner and another pile overhead on the rafters. "We made 'em from fencin'. Jest cut 'em out and bent 'em thet way. When she's real wet weather we stick th' ears on them wires and hangs 'em up on these here nails so's they won't be in no danger of moldin'. Now let's go down cellar. 'S real hot up here under th' roof with thet sun beatin' down, ain't it?"

They went outside and into the basement. "Whee, it's nice an' cool down here." This from Danny. He saw the two small stoves used to heat the corn drying house, both connected to the one chimney. He learned that soft coal was burned in one, hard coal in the other, and corn cobs in both.

"Now, Danny," Jud said, "after th' corn gits good an' dry we jest let her set till we ship her out. When we're workin' in here real cold days, o' course we have a fire. But so fer as th' corn's concerned, tain't necessary only fer about two weeks. This here house will hold about five hundred bushel ef we crowd her. Others has different kinds of corn storin' houses. But ye've got only a small amount of corn to cure. Ef I was you I'd make some corn trees an' hang 'em up in yer attic."

Danny didn't know just what corn trees were—he thought corn always grew on stalks and not on trees. So old Jud very painstakingly told him just how to make these most convenient articles for curing corn. After that the two went up out of the cellar and Danny said, "Thank you very much, Uncle Jud, I'm going right home and make those corn trees before I forget your directions." So he untied Prince, jumped on his back, and galloped off.

"Wal, I snum! He's a right smart young feller," was Jud's remark as he watched Danny gallop away.

Waukesha Club Show

Hoard's Dairyman Juniors took a prominent part in making the recent Waukesha County (Wisconsin) Live Stock Club Round-up one of the most successful ever held.

August 9th was a busy day for some ninety boys and girls. They had to rise early, get their pets ready to be transported to the Waukesha pavilion, load and unload, groom them for the show ring, lead them before the judge, and when this was over get them loaded onto the truck and back home. To say the least, the dairy calf club show was the outstanding feature of the round-up. Eighty-two calves, representative of four breeds of dairy cattle, Holstein, Guernsey, Ayrshire, and Brown Swiss, made a large and impressive showing.

Judging commenced about eleven o'clock when the pigs were lead into the ring, fairly shining from the careful grooming which their youthful owners had given them. They had been washed, scrubbed and oiled. They had been trained by their owners to mind every guiding touch of the cane. It was evident that the prize winners had received their share of skimmilk and other dairy farm products to make them the slick looking animals that they were. Following the pigs came the bleating sheep, producers of wool and mutton. This concluded the morning's showing activities.

As we walked down along the long rows of slick dairy calves blanketed and waiting their turn, we found several old acquaintances and made some new ones. The calves were a dandy looking lot and the boys and girls were good caretakers. Most of the juniors stayed close to their calves, brushing, feeding, and looking after them. Such care as this makes prize winners and makes good future dairymen.

An hour for lunch and the boys and girls were back at the pavilion anxiously waiting for the dairy calf show to begin. But before the show ring activities commenced again, a treat was in store for the club members, their parents, and friends. For more than a half hour W. McNeel, Assistant State Club Leader, entertained the crowd with community singing and a splendid talk.

"The first calves to be led into the ring will be Ayrshires!" This announcement was from J. F. Thomas, Waukesha County Agent, and in charge of the club show. An announcement was also given to the effect that seven prizes would be given to the best showmen in a Showmen's Contest to take place immediately following the afternoon's judging.

Waukesha County has long been famous as the home of some of the finest Ayrshire herds in America. There are perhaps few Ayrshire club shows which would excell the exhibits at this round-up. For numbers, the Holsteins lead the breeds represented in the ring with the Guernseys a close second. The Brown Swiss breed had but one calf shown.

Here are the prize winners at the dairy calf show:

Ayrshire Heifers

1, Dan Hanrahan, Jr.; 2, Robert Seitz; 3, Eleanor Seitz; 4, Robert Seitz; 5, Geo. Simmons; 6, Mary Dalton; 7, Marvin Dalton; 8, Edward Price.

(Continued on next page)

Brown Swiss Calves

1, David Evans (only calf shown).

Guernsey Heifer Calves

1, Frank Fox, Jr.; 2, Frank Fox, Jr., (shown by Henry Swartz); 3, Albert Fruit; 4, Helen Boyd; 5, Donald Burton; 6, John Boyd; 7, Donald Burton; 8, Phil Longley; 9, Gaylord Noll; 10, Marjorie Love; 11, Eugene Griswold; 12, Lester Wendt; 13, Jack Longley; 14, William Haylett; 15, Charles Kuhtz.

Guernsey Bull Calves

1, Albert Fruit; 2, Wilbur Reid; 3, Donald Burton; 4, Elmer Wendt; 5, Frank Fox, Jr.; 6, Marjorie Love; 7, Donald Williams; 8, Jack Longley; 9, Howard Klein.

Grade Guernsey Heifers

1, Blanche Beggs; 2, Louis Sayles; 3, Everette Varley; 4, Raymond Varley; 5, Charles Garvens; 6, Howard Klein; 7, Sylvester Steele; 8, Robert Wiesenthal.

Holstein Bulls

1, Mitchell Karboski; 2, Joe McLay; 3, Alfred Garvens; 4, Harvey Swartz; 5, Roy Ebel; 6, Matthew Mungen.

Holstein Heifers

1, Gordon Brimmer; 2, Matthew Mungen; 3, Harvey Swartz; 4, Hubert Smith; 5, John Price; 6, Allen Shultis; 7, Richard Garvens; 8, Mitchell Karboski; 9, Melvin Stever; 10, Percy McFarlane; 11, Warren Swartz; 12, Florence Bagley; 13, Steven Cinky; 14, Wm. Klussendorf.

Grade Holstein Heifers

1, Glen Honeyager; 2, Geo. Werning; 3, Albert Werning; 4, Rollin Linck; 5, Roy Eble; 6, Arthur Brandt; 7, Percey McFarlane; 8, Warren Cruver; 9, Harvey Steele; 10, Reinhold Engler; 11, Herbert Lamp.

Showmen's Contest

1, Robert Seitz; 2, Frank Fox, Jr.; 3, Joe McLay; 4, Helen Boyd; 5, Sevent Cinky; 6, John Price; 7, Clifford Keppen; 8, Frank Swartz.

Dairy calf judges were R. S. Hulce, Lester Stevens, J. E. Stallard, Fred Southcott, W. L. Baird. Hogs were judged by E. C. Thompson, C. T. Hill, and William Muckleston, and sheep by M. H. Thornton.



WINNERS IN SHOWMEN'S CONTEST AT WAUKESHA CLUB ROUND-UP. THEY ARE LINED UP FROM RIGHT TO LEFT IN THE ORDER OF WINNING

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

See Hoard's Dairyman, issue of September 5, for a further discussion of the following:

Name the two essentials for the successful growth of sweet clover. A sweet soil (lime on sour land) and inoculation.

How much lime should be applied? Two tons of ground limestone are ordinarily needed per acre, but where very acid four or five tons may be required. Test your soil to determine its lime needs, don't guess.

What is the best variety of sweet clover? Biennial white sweet clover is best for dairy pastures. It is a sure "catch" when sown on sweet and inoculated soil. The seed should be scarified to break the hard coating in order that it may germinate more readily.

How much seed should be sown to the acre? Professor Fraser has had good results on his farm, sowing sweet clover at the rate of five pounds to the acre.

Tell about Hungarian Vetch. This is a comparatively new hay crop now being rather extensively grown in Oregon and other western states. It is a legume that will grow on acid soil, yields from two to four tons per acre, has a high feeding value, and is liked by the dairy cow; will survive wet winters and is aphis proof. Hungarian vetch came out victorious in a trial of some 400 varieties of vetch, begun in 1908 at the Oregon Experiment Station. (See "Hungarian Vetch in Oregon".)

What was the record of Lady Sylvia Barmstable? She was the only pure-bred female that Mr. McKnight of Connecticut ever bought. From her he built a pure-bred herd. She had 65 descendants born at Oakdale Farm. In thirteen years she dropped as many calves, was never sick, never lost a feed, never had udder trouble. Every calf but one was dropped in May, and this one was dropped in June. (See "Sixty-five from One".)

Junior Letters

Lives in Hundred-year-old House

Hoard's Dairyman Juniors:—I received the badge, creed, and button. I am very much pleased with them. My brother once joined the club. We have 30 cows that we are milking. I had a cow and sold her about two years ago. I received $75 for her and so I took part of the money and bought another calf. It is quite large now. We have a milking machine.

I am 12 years old. I live in Brandon, Vt., in a large stone house that was built in 1828. The secretary of the Ayrshire Breeders' Association lives in our town.

Vermont. Ralph Landon.

Yes, we know Mr. Burlingham, the secretary of the Ayrshire Breeders' Association. He is a very fine fellow. He was one of the editors of Hoard's Dairyman for several years. He recently told us that he lives in the newest house in Brandon, and it was built 34 years ago.

A Sewing Club Member

Hoard's Dairyman Juniors:—I live on a farm of 500 acres along Narragansett Bay. The house Nathaniel Greene lived in is about two miles from where we live.

Our school has a sewing club, and we named it the "Busy Bees". I am the president.

Three of us expect to go to Camp Edwards for a week. It is down at Kingston College.

We have made iron holders, aprons, nightgowns, bloomers, did some darning and now I am making a dress. I have been a junior for some time but I have never written before.

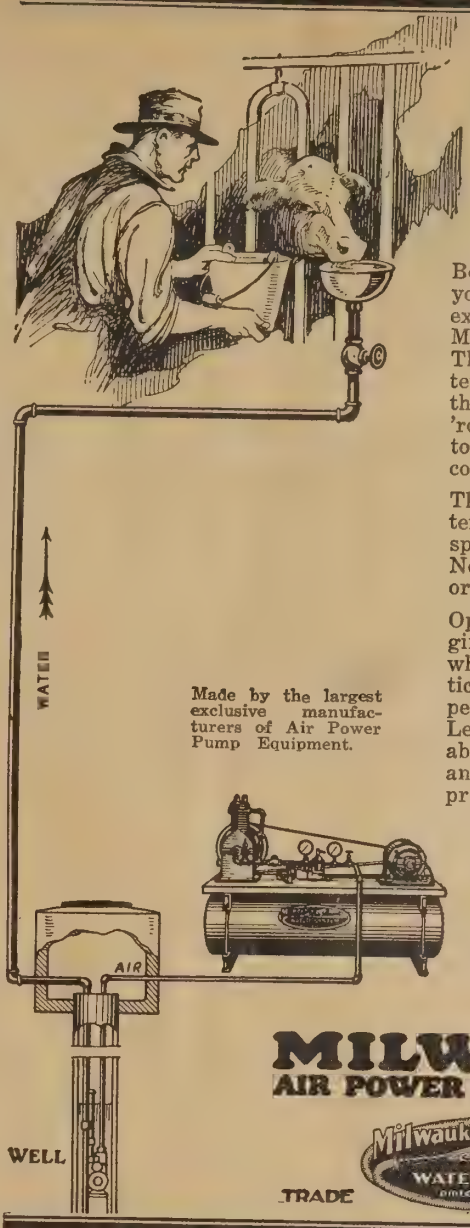
Rhode Island. Frances Eckhart.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.



Dairymen find-- this water system most profitable.

Before selecting a water system for your dairy farm let us tell you of the experiences of dairymen who have the Milwaukee Air Power Water System. The Milwaukee Air Power is the system that delivers water direct from the well, at well temperature the year 'round. This kind of water means 3 to 10 lbs. more milk a day from each cow and healthier, hardier stock.

The Milwaukee Air Power pumps water any distance direct from well, spring, lake, cistern or all of them. No water storage tank to become foul or freeze.

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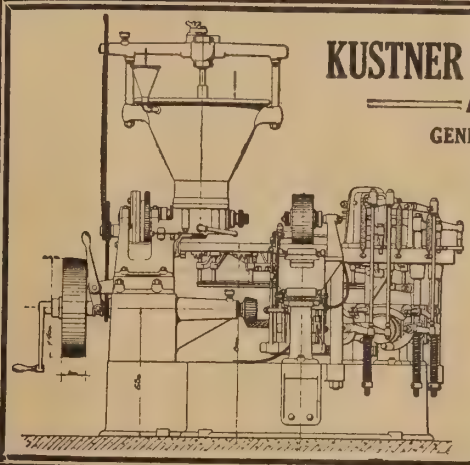
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The machines as well as the wrapping system are patented.

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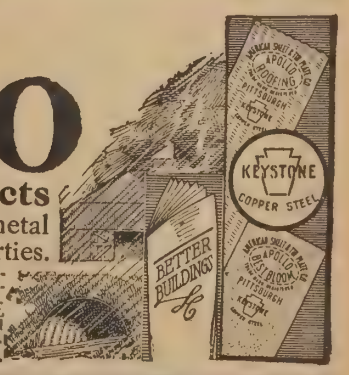
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STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Springers—10 Registered Holstien cows and heifers, cheap. AUGUSTINE BROS., Pound, Wis 19-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Waupaca County high grade Holstein and Guernsey cows and heifers for sale in carload lots or will assist you in buying. JENNINGS FARMS, New London, Wisconsin. 5-7

Springers—8 second calf, grade Holsteins, bred to a 930.80 lb. junior two year old record, show bull. Also registered bull and heifer calves from above sire. R. L. ANDERSON, Whitewater, Wis. 7-4

Fine Herd registered Holsteins to place on shares. FRED HARRIMAN, Appleton, Wis. 7-3

Forty Registered Holsteins. Any number up to carload. Good stock. Low prices. DR. HAINES, Three Rivers, Mich. 8-2

For Sale—Carload good Holstein springing heifers. E. E. LEWIS, R. 3, Racine, Wis. 8-3

Twelve Registered Holstein Cows for sale. A. NEILSON, R. 2, Waukesha, Wis. 9-2

Holstein Springers and fresh cows. W. STRAUSS, R. 5, Watertown, Wis. 9-4

Holstein Cows—Heifer calves, 200 head. Sacrifice prices. From heavy milk strain. WERNER FARM, Kenosha, Wis. 9-2

Ormsby-Homestead bulls $65. up. Dams up to 28 lbs. butter 7 days. EDW. RACE, Peshtigo, Wis.

For Sale—Registered Holstein cows, heifers or heifer calves. Accredited herd. Price right. GEO. DIEHL, Montrose, Ill. 9-2

We are Offering 18 grade cows to freshen this fall, and 3 Guernsey bulls. M. L. WELLES, Rosendale, Wis. 9-3

For Sale—Any part of fifty Guernsey females. Also a real good Guernsey bull. F. J. GLANVILLE, Lancaster, Wis. 8-4

Registered Guernsey Bulls nearing serviceable age. Best May Rose, Golden Secret breeding. A. R. dams, herd accredited. ALLIC KNUDSON, Brodhead, Wisconsin. 8-4

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Two Serviceable Guernsey Bulls for sale. Dams have over 500 lbs. fat. Six bulls 6 months old. Dams and grandams average 697 lbs. fat. Sale list. HOMER RUNDELL, Livingston, Wis. 9-Spl

Ten Registered Guernsey heifers one and two years old. Accredited herd. W. H. PECK, Kent, Ohio.

For Sale—A few good grade Guernsey cows. Pick of herd. KENNETH MAULE, Dousman, Wis.

Registered Brown Swiss heifer calves wanted. SCHEIDEL BROS., Calmar, Iowa. 9-2

For Sale—21 two year old high grade Jersey heifers. Pasture bred to registered Jersey bull. I. F. SUTER, Box 242, Palmyra, Missouri. 9-4

STOCK WANTED

Wanted—Carload registered Holstein cows, GEORGE H. RUDY, Mattoon, Illinois.

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Orang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

For Sale—Pedigreed Airedale pups. JANEHURST KENNELS, Waukesha, Wisconsin. 6-4

Collie and Shepherd pups. Heelers with nerve. Satisfaction guaranteed. Males and spayed females. $6.00 to $3.00. WILBUR DAY, Brighton, Iowa.

Hundred hunting hounds cheap. Trial C. O. D. BECKENNELS, H D W, Herrick, Illinois. 9-4

A Fine Litter of natural heeling Collie pups. Males $8.00, females $4.00. Also 1 brood bitch 2 years old, a good heeler, $15.00. GLENN J. BOYER, Orangeville, Ill.

SWINE

June Pigs—Pure bred Chester Whites, $10. DAVE SEXTON, Calderwood, Mich. 8-2

SILOS

Silo Bargain—12x20 Washington Fir Silo. Never erected. ALBERT C. WOLLIN, Johnson Creek, Wisconsin. 7-4

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

HONEY

Pure Honey. 10 lb. pail, $1.50; three pails (30 lbs.), $4.00. AMBROSE RIEFF, Mankato, Minn.

FARMS FOR SALE

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

Just Out—Free picture catalog of Shawano, Oconto and adjoining county farms. Alfalfa, corn, potato and dairy section. Deal direct, no commissions. WISCONSIN FARMERS & HOMESEEKERS' SERVICE BUREAU, Marshfield, Wis.

Don't Rent—Buy my level dairy quarter, 6 miles County Seat 2,000. Big barn, alfalfa, etc., $60.00. HARRY L. PAGE, owner, O'Neill, Nebr.

Register and Secure a Farm—Hundreds have already started on our wonderful colonization plan. Come and see their fine new homes. We will also help you start in Wisconsin. You can get 40 or 80 acre dairy farm for only $100 deposit and balance in 10 years. Close to big towns. Many neighbors. Best, richest, gently rolling, Wisconsin clay loam. Only $2000 for 40 with nice house, good barn, best milk cows. A greater opportunity than a U. S. homestead. Particulars free. NATIONAL LAND COLONIZING CO., Dept. G7, Madison, Wis.

For Sale—53 acre dairy farm with good dairy business. Close to town, school, and hard road. Death in family reason for selling. Bargain if sold soon. For particulars write C. F. HARRIS, Mt. Vernon, Illinois, Rural Route 1.

For Sale—River bottom dairy farm of 186 acres, across the river from a town of 7,000 and short distance from two cities of 60,000 and 35,000. All good roads. Buildings are first class and equipped for dairy and stock farming. An excellent herd of 34 registered Holstein females. A young high producing herd. This herd is accredited. Well equipped with almost new machinery including two tractors. Retailing milk in town and never lower than 12c per quart. Two railroads within one mile and two miles. Milk station one mile and creamery two miles. Can grow anything on this soil. One of the rare opportunities seldom offered. Address BOX 275, care Hoard's Dairyman.

For Sale—120 acre dairy farm in Washington County, fine soil, good modern buildings, price $8500.00, $2,000.00 down. Will sell stock and implements very cheap. THOS. TONER, Route 5, Hartford, Wis.

Wisconsin Dairy Farm near Milwaukee, first class buildings, excellent soil, high test dairy herd; real bargain. E. HAWKS, 4406 Pabst Ave., Milwaukee, Wisconsin.

FOR RENT

For Lease—Model dairy farm fully equipped for certified milk. 18 miles from Washington. 200 cow barn capacity. Railroad station 1-4 mile from barn. Ample tenant houses. 100 acres of alfalfa. Annual milk receipts $40,000. Could be easily increased 50% to 100%. Leasing farm on account of death of owner. Executors can offer attractive proposition to experienced dairyman with capital. G. M. HUTCHISON, Sunset Hills, Virginia. 7-4

For Rent—Four dairy farms from 110 to 432 acres, good soil and location; excellent milk market. Write FRANK W. FISHER, R. R. 4, Janesville, Wis. 8-2

For Lease—200 acre dairy farm land for taxes plus interest. Level land, fertile soil, excellent pasture, artesian well. Close to market. Opportunity for good man. BOX 142, Dubach, La.

Wanted—March 1, 1925, progressive tenant, fifty-fifty basis, for 220 acre dairy, hog, and chicken farm near Rockford, Illinois. Level, rich soil, 60 acres bottom pasture. Ample new stuccoed buildings, Jamesway equipment, electricity. Near good school and cement highway. Man with own help preferred. Financial assistance if necessary. Address BOX 284, care Hoard's Dairyman.

PARTNER WANTED

Wanted—Dairy farm partner. R. N. SNOW, Pagosa Springs, Colo. 5-5

Working Partner Wanted—Dairying. Population 3000, growing fast, practically only dairy. Big opportunity. If interested write quick to WOODLAND DAIRY, No. 871, New Smyrna, Florida.

FARMS WANTED

Wanted to Buy or Rent—Farm with retail milk route. Address BOX 281, care Hoard's Dairyman.

Wanted—Large going farm completely equipped; full particulars first letter; name price and whether exchangeable for city income property. Address BOX 277, care Hoard's Dairyman. 9-*

DAIRIES

For Sale—Good dairy business. County seat and school town 8,000. Would consider partner. J. P. PARKS, BOX 391, Clarendon, Texas.

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

For Sale—150 tons alfalfa and clover hay, $15.00 f. o. b. Twin Lakes, Wisconsin. BELVOIR FARMS, Lake Geneva, Wis. 8-3

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

AGENTS WANTED

After the crops are harvested you can still be sure of a good income during the winter months when work is slack. "Wear-Ever" demonstrators make from $50 to $75 a week. Write us for further information. THE ALUMINUM COOKING UTENSIL CO., Dept P, New Kensington, Pa.

Amolax, wonderful stock laxative, quick action. Satisfaction or money back. $1.50. Agents wanted. RUSSELL DINGER, Melvina, Wis. 9-2

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

MACHINERY

For Sale—Eight new cream separators never removed from box. Bargain prices for quick sale. THOMAS TAFFEE, Box 355, Lansing, Mich. 7-5

Want to Buy a hay bailing press in good condition. Give name, make, model, and year, with price in first letter. BOX 266, care Hoard's Dairyman. 8-*

For Sale—Three unit Hinman milker. Extra pail. Good. Quitting. $95.00. J. A. WILLIAMS, Seymour, Iowa.

For Sale—15 H. P. International engine, mounted. Guaranteed to work satisfactory. Price low. BELLE ELLEN STOCK FARMS, Branchville, N. J.

Wanted to Buy—Small Minnetonna home butter maker churn, 12 gallons of cream, for ¼ H. P. motor. Must be in good condition and cheap. H. A. BENNETT, Ridgewood, N. J.

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 9-2

De Laval Cream Separator, Turbine No. 20, used two years. MANNSFIELD HALL FARM, Fredericksburg, Va.

Wanted—A De Laval or Empire milking machine, with two or three units, in good order. T. W. HALEY, Klamath Falls, Oregon.

For Sale—Used Hinman Milker in good condition. Address BOX 285, care Hoard's Dairyman.

TOBACCO

Homespun Tobacco—Chewing, five pounds, $1.75; ten, $3.00; twenty, $5.25. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Ky. 7-4

Natural Leaf Tobacco—Chewing five pounds, $1.75; ten, $3.00; smoking, five pounds, $1.25; ten, $2.00; pipe free, pay when received. Tobacco Guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 8-4

Homespun Tobacco, Chewing, 5 lbs. $1.75; ten $3.00. Smoking, 5 lbs. $1.25; ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 9-4



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, **willing to** accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

Herdsman Wanted for State Institution in North Dakota. Jersey herd. We want an experienced feeder and good milker to take full charge. Apply at once, stating salary. Address BOX 248, care Hoard's Dairyman. 6-*

Wanted—Man for milk route and dairy work. Must be honest and reliable, neat in appearance and a gentleman. No cigarettes. State age, wages, experience, full particulars, and give references. Address BOX 241, care Hoard's Dairyman. 6-*

Wanted—Experienced herdsman to take charge of a Raleigh, bred Jersey herd. Must be a man of good morals. Well posted on blood lines and breeding of Jersey cattle. Must be a real good milker. In fact he must possess all qualities that it takes to make a first class dairyman. This position pays $165.00 per month and house rent free. Address all communications to W. S. HONNOLL, Business Manager, State Insane Hospital, Jackson, Miss. 6-*

Position Open October first for experienced herdsman, single. Must be experienced in both short and long time test work, the production of certified milk and be able to handle men efficiently. Prominent Holstein breeding establishment. Modern barns. Good wages paid to man who can produce results. Give age, experience and references in first letter. Address BOX 255, care Hoard's Dairyman. 7-4

Wanted—A sober, reliable, and agreeable married man to work on dairy farm to assist with the milking and do general work, in fact anything that comes to hand. Prefer a man who had some members of the family that could assist with the milking. House, garden and fire wood furnished. H. E. BOSWELL, Box 66, Burkeville, Va. 8-2

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 8-4

Wanted—By September 20, two experienced farm hands, one to do chores and one to run Fordson tractor and help with other work. Good accommodations and wages. Write, phone or call the manager, Richard H. Buelow, Box 81, Wauconda, Ill. THE LOUIS GOLDEN FARM, Phone Wauconda, 58W2.

Wanted—At once, working foreman, single or with small family. Must be thoroughly experienced handling pure bred Holsteins, A. R. O. work, and calf raising; also experienced in hog raising, general farming and handling of men. J. H. BURR, St. Charles, Illinois.

Wanted—Single man, good milker, for general farm. $40.00 per month and board. Permanent job. A. L. CAMPBELL, Talcott, W. Va.

$95—$192 Month. Men—women, 18 up. Get U. S. Government positions. Steady work. Short hours. Life positions. Paid vacation. Work pleasant. Common education sufficient with our coaching. Experience unnecessary. List positions obtainable—FREE. Write immediately. FRANKLIN INSTITUTE, Dept. R106, Rochester, N. Y. 9-4

Wanted—Single man on small Guernsey dairy farm. State age, wages expected. JOHN A. REUSCH, R. 4, Elizabeth, Ill.

Wanted at Once—Experienced man for general farm work on dairy farm. Milker used. $50 a month, board and washing. R. J. PAULSON, Riley, Wis.

HELP WANTED

Help Wanted to take charge of milk house and help in barn on high class dairy. Bottled milk. Must be single, clean, a lover of Jerseys and interested in R. of M. work. Chance for inexperienced young man to learn much. A shifter not wanted. Good home and wages. Tell about yourself at once. C. T. OSCAR SCHACHT, Bloomington, Ind.

Wanted—Refined middle aged woman as housekeeper for two adult in modern country home; must be neat and good cook; good home and salary for right party. Address BOX 274, care Hoard's Dairyman.

Wanted—A milk route man in northern Illinois. One who understands the work also how to handle the public. Chevrolet truck used on route. Best of references required. No amateur wanted and only good experienced men need to apply. This position will pay $75.00, board and room to the right party. Address BOX 276, care Hoard's Dairyman.

Married Couple wanted on modern dairy farm; wife to do housework. No children preferred. State wages. R. E. SCHEIDEL, Calmar, Iowa. 9-2

Wanted at Once—Experienced milker and dairyman for Guernsey herd. WAYANET FARMS, Davenport, Iowa.

Wanted—Thoroughly experienced man and wife or two men for small dairy. Salary to suit or sell half interest. J. P. PARKS, Box 391, Clarendon, Tex. 9-2

Wanted—Single man for general farm work. Good milker. J. V. STEVENSON, Streator, Ill.

POSITION WANTED

Position Wanted as farm manager or foreman. Married, no family, six years' experience in dairying and with test cows. Understand grain farming and stock raising. Can furnish very best of references. Can commence soon. GUY F. COVELL, care Larch Wood Stock Farm, Prophetstown, Ill. 8-4

Position Wanted by man 25, first class milker and cow man. Three years on milk route. No smoker. Wages $60 a month. NICK CHURCH, Route 3, Warren, Ohio. 8-2

Wanted—Position on farm by November 1. Married man, 40, small family. Lifetime experience in all branches. A-1 reference last employer. Address BOX 280, care Hoard's Dairyman.

Wanted—By November 1, position as manager up to date dairy establishment where interest is taken in high class breeding. Prefer Jerseys, but would accept others. Am thoroughly experienced in every phase of the work. Am 31 years old. Married. Will not consider small proposition. Location desired in Southeastern states. Address A. B., Route 1, Sandersville, Georgia.

Position Wanted—October 1st by middle aged experienced Englishman on small dairy, North Carolina preferred. Best references. CHAS. TEAL, 78 Boardman St., Rochester, N. Y.

Position Wanted as assistant herdsman. Experience in feeding and care of cattle. Practical and college training. Can furnish reference. Address BOX 273, care Hoard's Dairyman.

Position Wanted as working herdsman or first class job in the barn by Hollander, single, 25. Open after September 15. A-1 milker, feeder, and calf raiser. The best of references. State wages and full particulars. Address BOX 268, care Hoard's Dairyman.

Position Wanted—By young married man as dairyman in up-to-date dairy. 12 years' experience in high class dairying. References exchanged. W. E. McCONNELL, Sabot, Va. 9-2

Position Wanted at once by experienced, honest, reliable herdsman age 21, Holsteins preferred. BOX 282, care Hoard's Dairyman. 9-2

Position Wanted—As superintendent of manager of dairy farm by college graduate, age 40. Life of experience in all branches of the pure bred business. Guernseys preferred. Available Oct. 1. First class references. Address BOX 278, care Hoard's Dairyman. 9-Spl

Position Wanted—As buttermaker or work in milk plant. Single, age 26. Reference. Address BOX 283, care Hoard's Dairyman.

Dispersal Sale

Of one of Missouri's best Holstein-Friesian herds of cattle, at the

Ozark Show Co. Sale Pavilion

MONDAY, SEPT. 22d

75 HEAD of Registered Holstein Cattle

A COMPLETE DISPERSAL—An accredited herd, heavy producers, many of the cows have seven day and yearly A. R. O. records. The best blood lines of the breed are represented in this splendid herd of cattle.

The bulls that have been used are the following: A grandson of the $100,000 sire King Segis Pontiac Alcartra; a grandson of The Great King Segis; a son of Sir Ormsby Pietertje Mercedes.

15 heifers sired by the Ormsby bull and ten young bulls ready for service from record cows. This sale affords an unusual opportunity to buy foundation cattle.. Terms to parties desiring credit, if arrangements are made with owner before the sale.

Write today for Catalog to Owner.

A. C. DAILY, care United Iron Works, Springfield, Missouri.

Auctioneers—Fred Ball, Elreno, Okla., Boyd Newcom, Wichita, Kansas.

W. H. MOTT, Herington, Kans., Sales Manager

Rockingham Guernseys

(Home of LANGWATER HOLLISTON 28055)

THE FIRST CHECK FOR $250, received will purchase a fine double-grandson of Langwater Holliston, by a full brother of Early Dawn (686 lbs. B. F. in EE)—out of Lady Methuen (601 lbs. B. F. in F.) Beautifully marked and right in every respect and a show bull. Price f.o.b. **ROCKINGHAM FARM, Salem, New Hampshire.** Check to **DANIEL G. TENNEY, 15 W. 4th St. N. Y. City, N. Y.**

HEAD of CHOICE

60 GUERNSEY CATTLE 60

To be Sold at BAKERSTOWN, PENN., SEPT. 18th, consisting of:

30 Choice Young Cows **25 Choice Open and Bred Heifers**

10 Exceptionally Fine Bulls and Bull Calves

These cattle are consigned from the choicest small herds in Western Pennsylvania and are sold under the broadest guarantee. For catalog write

W. P. CRAIG, 616 Bessemer Building, PITTSBURGH, PENNSYLVANIA.

Dispersal Sale

ALDEBARAN FARM AYRSHIRES

One of the Largest and Most Noted Herds in America

AT ALDEBARAN FARMS

Racine, Wis., Thurs., Oct. 2 10 A.M

This is the day before the Ayrshire Judging, National Dairy Show, Milwaukee.

77 Registered Ayrshires

This herd has been assembled and bred by Mr. Stephen Bull during the past decade. Only the finest blood obtainable has been used, blending both show type with high milk production. Such an opportunity to secure FOUNDATION herd stock has not been offered in recent years.

Top Notchers

ALDEBARAN VICTOR — Champion bull of the Eastern circuit 1923. Out of Highland Polly, the highest priced cow of the Ayrshire breed in America, by Friendlesshead Victor. Has wonderful type, fine quality, unexcelled production pedigree.

AUCHENBAY DEWDROP—Prize winning A. R. cow Eastern circuit 1922. Senior two year old record 11,069 lbs. milk, 4.12% fat. Bred to Aldebaran Victor. Fresh by sale date.

HENDERSON'S BETTY 3rd. French cup winner 1923. Record 17,277 lbs. milk, 4.14% fat.

GLADYS OF RICHFIELD. A great milker. A. R. mature record 16,746 lbs. milk, 4.28% fat.

SPRING VALLEY LOUISA 3rd. A. R. Junior 4 year old record 14,247 lbs. milk, 4.66% fat. Note the high test.

ALDEBARAN MAID 2nd. A. R. mature record 12,737 lbs. milk, 4.25% fat. Good type and a great breeder.

Composition of Herd

BULLS—Five bulls of serviceable age including Aldebaran Victor and Aldebaran Magnificent.

COWS—Thirty-four mature cows. Fifteen of these cows are in the advanced Registry with enviable records.

BRED HEIFERS—Sixteen bred heifers 18 to 24 months old. Nearly all of them were bred and raised on Aldebaran Farm, and are the progeny of these good cows.

OPEN HEIFERS—Seven open heifers, 12 to 15 months old. A very handsome lot.

HEIFER CALVES—Eight heifer calves 3 to 10 months old. A classy bunch—four by Aldebaran Victor.

BULL CALVES—Seven bull calves, 4 to 8 months old. Six by Aldebaran Victor. This is your chance to get a real herd sire.

Out of thirteen Advanced Registry and Roll of Honor Ayrshire class leaders in Wisconsin, six of this number are in the Aldebaran herd and will be in this sale.

Show type as well as high production will be found here. Remember the Date—Thursday, October 2—during week of the National Dairy Show. SEND FOR CATALOG NOW

ALDEBARAN FARMS, F. H. DEMAREE, Mgr. Racine, Wis.

DISPOSAL SALE

Registered Ayrshire herd which includes

22 MATURED COWS IN MILK, 19 HEIFERS IN FULL MILK, 6 FRESH HEIFERS, 6 YEARLING HEIFERS, 14 HEIFER CALVES.

(All above tuberculin tested.)

This herd is at Park Falls, Wisconsin and is ready for inspection at any time.

W. B. JOHNSTON Park Falls, Wisconsin

Complete Dispersal Sale

SATURDAY, SEPTEMBER 20th

Almost **100 HEAD OF PURE BRED** and **GRADE HOLSTEINS**—some **GUERNSEYS**—A dandy group of highly bred yearling bulls will be sold. Five miles north of Waterloo, Wisconsin on Danville road. We are discontinuing farming. Every animal must be sold. Herd federally tested. A splendid opportunity to get springers, milkers or yearlings in car lots. Don't miss it.

F. DARCEY, Pedigrees C. E. DONOVAN, Auctioneer

For Further Information Write

J. C. BOLGER Waterloo, Wisconsin

Pierce-St. Croix First Annual Sale

SATURDAY
SEPT. 27
RIVER FALLS
Wisconsin

60 REGISTERED HOLSTEINS

These cattle have been carefully selected from the many fine herds in Pierce and St. Croix Counties for the sole purpose of acquainting the public with the quality of Holsteins being developed in this community.

Practically every female is of breeding age. Many of them have records and many are excellent show prospects. *A few choice bulls including two from 1,000-lb. cows.*

Sale being held in connection with the River Falls Stock Show, September 25 and 26.

SEND FOR DESCRIPTIVE FOLDER

TWIN CITY PEDIGREE & SERVICE CO., Sales Mgrs., 211 Market Bank Bldg., MINNEAPOLIS, MINN.

National Dairy Show Sale!

Grade Cows with Cow Testing Ass'n records

National Dairy Show, Milwaukee, Wis., Sept. 30, Oct. 1-2

Every cow must have a C. T. A. record of at least 250 lbs. fat as a two year old or 350 lbs. fat at 3 years old or over.

All will be tuberculin tested just before sale, and all will be examined just before sale by competent veterinarian and his statement of condition of pregnancy will be announced at time she is sold. There was never a better opportunity offered to buy cows with C. T. A. records.

It is expected that we will have **ABOUT 200 HEAD** mostly Holsteins and Guernseys in about equal numbers.

Committee in charge of the sale is Charles L. Hill, Rosendale, Wis., W. H. Baird, Waukesha, Wis., and Glenn Vergeront, Black River Falls, Wis.

For Catalogs Address

CHARLES L. HILL, Rosendale, Wisconsin

Lone Pine Guernseys

DISPERSAL SALE — Chicago Guernsey Farm

HINSDALE, ILL., OCT. 3, 1924

Owing to the death of Henry L. Stout this herd will be sold at above time and place by the surviving partner, F. D. Stout.

Type --- Breeding --- Production

The greatest lot of cattle offered at public sale this year. Twenty-nine cows in the sale have A. R. records that average 636 lbs. fat and one is over 900 lbs. and three other over 800 lbs. of fat. Many winners at the National Dairy Show including three cows that have won 1st.

Messrs. Stout have bought the best of the breed regardless of price and at that the best things offered are those bred on the farm.

THE HERD CONSISTS OF 85 HEAD and this sale will include the 60 best ones and others will be disposed of at private sale.

For Catalogue Address

CHARLES L. HILL, Sale Manager, Rosendale, Wisconsin

See Page Ad with Pictures issue of Hoard's Dairyman, September 19.

SALE ANNOUNCEMENTS

Sept. 12—Guernsey Dispersal. A. A. Gillette, Locust Grove Farm, Lima, N. Y. Leander F. Herrick, Sale Mgr., Worcester, Mass.
Sept. 12—Holsteins and Guernseys, Menomonie, Wis. Holstein and Guernsey Associations of Dunn County. De Lancey Bros., Sale Managers.
Sept. 15—Guernseys. Louis Merryman, Timonium, Md.
Sept. 16—Holsteins and Guernseys, New Richmond, Wis. Holstein and Guernsey Associations of St. Croix County. De Lancey Bros., Sale Managers.
Sept. 18—Holsteins and Guernseys, Eau Claire, Wis. Holstein and Guernsey Associations of Eau Claire County. De Lancey Bros., Sale Managers.
Sept. 18—Guernseys. Consignment Sale, Bakerstown, Pa. W. P. Craig, Mgr.
Sept. 19—Holsteins and Guernseys, Chippewa Falls, Wis. Holstein and Guernsey Associations of Chippewa County. De Lancey Bros., Sale Managers.
Sept. 20—Holsteins. Dispersal Sale of J. C. Bolger, Waterloo, Wisconsin.
Sept. 22—Holstein Dispersal, A. C. Daily, Springfield, Mo. W. H. Mott, Herington, Kas., Sale Mgr.
Sept. 26—Guernseys. W. E. Wright, Akron, Ohio. Ohio Guernsey Breeders' Ass'n., Wooster, Ohio, Sale Managers.
Sept. 27—Holstein—Pierce—St. Croix Annual Sale, River Falls, Wis. Twin City Pedigree & Service Co., Mgrs.
Sept. 30 and Oct. 1—Sale of grade cows with cow testing association records at National Dairy Exposition at Milwaukee, Wis. C. L. Hill, Rosendale, Wis., Sales Manager for National Committee.
Oct. 2—Ayrshires. Dispersion of Aldebaran herd at Racine, Wis.
Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.
Oct. 6-7—Holsteins. Wisconsin Dairy Show Sale at Waukesha, Wis. Wisconsin Holstein-Friesian Association, Managers.
Oct. 7—Holsteins. Hillsboro Holstein Ass'n., Hillsboro, Wis. Gus Knick, Sec'y.
Oct. 8—Holsteins. Hickory Grove Farm's Second Annual Sale at Fairwater, Wis. W. J. Beilke.
Oct. 8-9—Mankato Holstein Farm Dispersal, 125 head. Mankato, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 8-9—Blue Earth Co. Guernsey Breeders' Assn. at Mankato, Minn. Dr. M. B. Wood, Sale Mgr.
Oct. 9—Second Annual Mississippi Valley Holstein Show and Sale at St. Louis, Mo.
Oct. 10—Holsteins. Second Annual Freeborn County Consignment Sale. E. G. Cort, Mgr.
Oct. 11—Holsteins. Clark Co. Holstein Sale at Neilsville, Wis. Jno. Wuethrick, Greenwood, Wis., Sale Mgr.
Oct. 11—Dr. H. P. Fischer Dispersal 75 Holsteins at Shakopee, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13—F. H. Bauer Dispersal 70 head Holsteins at Delano, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Oscar W. Hanson, 65 Holsteins at Withrow, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.
Oct. 16-17—Johnson County Holstein Co. Dispersion Sale, Warrensburg, Mo. J. L. Ferguson, Secretary.
Oct. 17—Bradford County 2nd Annual Registered Jersey Consignment Sale at Troy, Pa.
Oct. 21—Guernseys. Goldmead Farm's annual sale of Registered Guernseys at Versailles, O. Spiller & Worch, Owners.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Oct. 24—Holsteins. Dispersion of the Spring Valley Stock Farm herd at Pittsford, Mich. Elisha Bailey & Son, Owners.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 4—Walworth Co. Holstein Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.



Is It Idle Chatter?

The people in Tokio, Japan, are just like the rest of us. When they don't like their telephone service (which is most of the time) they say so and their complaints have resulted in some interesting findings against the women.

The municipal telephone bureau apologized for the poor service and has laid it onto the women, claiming that more than one-fourth of the telephone conversations between them are idle chatter and unnecessary. Of course, they say that men are also sinners in this respect but to an amazingly less degree.

Papers all over the country have copied and commented on these findings, practically all of them agreeing that American conditions, if investigated, would be found to be about the same. They uniformly agree that efficiency of service would rise in proportion as the "idle chatter now being spilled on the wires" was stopped.

I have been on party lines of all sorts varying from two to four subscribers and I will admit that there is something maddening about really needing to use the telephone and being prevented by an aimless conversation that stops only when the baby falls into the rain barrel or when the potatoes begin to burn.

But I do want to say a word in defense of the visiting that is done by women whose work keeps them at home practically all of the time. There are, under such circumstances, days when your spirits just seem to stay at a dead level; you love every member of the family as devotedly as ever but somehow they don't exactly fill the bill. Then some neighbor calls up on the telephone, a good hearty woman whose problems are the same as yours and you visit a while over nothing in particular. It's amazing what a difference it makes. You go back to the dishpan, you hum a little tune, and pretty soon you laugh at yourself because the very same surroundings seem so different to you.

It was just a little talk with nothing in particular to it and yet it was not idle chatter. I would call it perfectly legitimate telephone conversation, but unless you have a private wire I must admonish you not to keep this up more than ten minutes; five is better. That will be about the limit of patience of the man on your line who is waiting to get hold of an extra hand for haying. There is nothing gained by making anyone angry and you'll get as much benefit out of a few minutes' talk as if you stretched it out an hour. More: I know because I have a neighbor who telephones me now and then and I always enjoy it for a time but after I have tried standing up, sitting down, leaning against the wall, doing foot exercises (guaranteed to ward off flat foot), and making out a grocery order on the side, I begin to wish her in Jericho.

Plenty of neighborhood quarrels have started from the telephone. Try putting yourself in the other fellow's place and see how soon you'll have a model line. If it is necessary to prolong things, say so when you hear a receiver taken down. Your courtesy will nearly always be appreciated and returned. If not—well, I have always argued that, if one or the other is inevitable, it is better to be "done" by people than to "do" them.—LUCY THOMPSON.

Sour Cream Recipes

In response to Mrs. W. J. Van Wagoner's request, and since sour cream is most plentiful these summer days, I am sending my list of excellent recipes:

Honey Cookies: 1 cup honey, 1 cup sour cream, 2 eggs, 2 cups rolled oats, 2 cups wheat flour, ½ teaspoon of cloves and cinnamon, 1 teaspoon soda, 1 cup chopped raisins, and ½ cup nut meats. Stir all together and drop by spoonfuls onto greased pan.

Delicious Hermits: 1½ cups brown sugar, ½ cup molasses, ½ cup sour milk, 1 teaspoon of soda, ½ cup sour cream, 2 beaten eggs, 3 cups of flour (or more if needed), 1 cup chopped raisins. Add clove, cinnamon, and nutmeg to suit the taste. Stir all together and drop from a spoon.

Waffles: Beat 2 eggs, add 1 quart flour, and 1 pint sour cream in which has been dissolved 1 teaspoon soda. Fry in waffle irons.

Picnic rolls: Prepare sour cream biscuit dough, cut in rounds about ½ inch thick. Put a spoonful of chopped seasoned meat in center of each, roll together, fry in deep fat, then wrap in oiled paper.

Bran Cookies: ½ cup sugar, ½ cup sour cream, 1 egg, ¾ cup bran, 2 tablespoons milk, ½ teaspoon vanilla. Add flour to make dough stiff enough to handle. Roll, cut out, and bake in moderate oven.

Rocks: 1½ cups sugar, ¾ cup sour cream, 2 eggs, 1 cup sour milk, 2 cups oatmeal, 3 cups flour or enough to make stiff dough, 1 teaspoon soda, ½ teaspoon cinnamon, and ½ cup each of dates, raisins, and nut meats. Mix and drop from a spoon.

These three kinds of cookies should be baked in a moderate oven.

Spider Cake: 1 pint sour cream, ¼ cup shortening, 1 teaspoon soda, ½ teaspoon salt, 1 tablespoon sugar and enough flour to make medium soft dough. Mix lightly, roll quite thin, cut into rounds, and brown on both sides in a hot frying pan. Serve hot with butter and syrup.

Bran Bread: 1 quart bran, 1 pint graham flour, 1¼ cups sour milk, ¾ cup sour cream, 4 tablespoons sugar, 1 teaspoon soda dissolved in little hot water, ½ cup molasses, and ½ cup raisins. Steam until done, then dry off in oven.

Date Gems: 1 cup graham flour, 1 cup white flour, ½ teaspoon salt, 2 teaspoons sugar, 1 heaping teaspoon baking powder, and 1 cup chopped dates. Add a pinch of soda to 1 cup sour cream and stir into the other ingredients. Beat well and bake in gem pans in a quick oven.

New York. LULA A. CAMP.

Homemakers Hints

Lemon pie made with milk surpasses all other kinds. Mix all the ingredients (lemon juice, sugar, flour, a little salt and milk) together cold and cook in the double boiler. If cooked slowly and stirred often it will not curdle.

⚜

During the summer save all the ads and unused catalogs and pack in a box.

They will provide the kiddies with waste paper and cut-outs during the long winter months.

⚜

For real delicious baked beans, flavor wth maple sugar or syrup.

Do not use too much, just enough so they have a slightly sweet taste. If you have no maple on hand, use brown sugar with a dash of maple flavoring.

⚜

Add a handful of raisins to the dried peaches or apricots when cooking them for pies. They will improve the flavor immensely.

⚜

When the children are tired of cocoa try flavoring it with vanilla and they will exclaim, "This cocoa is good! What makes it taste so different?"

⚜

A dainty tinted icing can be made in the following manner: Boil the usual milk icing and let it cool. Then add 1 teaspoon slightly heaping of cocoa and flavor with vanilla. Stir until thick and creamy.

⚜

If you do not care for meringue on the raisin pie, try covering the top with the old-fashioned lattice of one-half inch wide strips of pie crust.

Then the filling will not cook out on the bottom of the oven.

⚜

If the silver has a slightly tinny look after boiling with aluminum ware and soda, give it the once-over with a soft worn out tooth brush and silver polish. it will take only a few minutes and the result will satisfy the most fastidious.

⚜

Grandma Davis says that an optimist is a person who believes that the fence never needs fixing until the cows break through.

New York. (MRS.) G. L. WHITE.

Care of the Coffee Pot

After about so long the coffee pot, like many human beings, seems to need a good going over. When my coffee begins to taste poor in spite of careful making I scrub the pot well, inside and out, rinse it, and fill it with cold water to which I have added a teaspoonful of soda. I bring this to the boiling point and leave it so for about five minutes. Then I wash, scald, and drain it and set it, if possible, in the sun.

One way to insure bad coffee is to leave old coffee grounds standing in the pot. Even if you can't find time to wash it right away it is a good idea to empty and rinse it and let it stand full of cold water until you can get around to attend to it properly.—LUCY THOMPSON.

Had We Better Build an Ark?

My garden is getting almost past hope. Every day I think that I can get out next day and weed it and that night it rains so hard that I almost mire trying to pick the vegetables.

The constant rain has made the mosquitoes so bad that they swarm around me like a flock of vultures

(Continued on next page)

Miscellaneous Fashions



No. 2122—Becoming Design. Cut in siz 16 years, 36, 38, 40, 42, and 44 inches bu measure. Size 36 requires 3¼ yards 36-in material with 2½ yards of binding.

No. 2117—New Design. Cut in sizes years, 36, 38, 40, and 42 inches bust measur Size 36 requires 3 yards 40-inch materi with 1 5-8 yards 20-inch contrasting.

No. 2133—Morning Dress. Cut in sizes years, 36, 38, 40, 42, and 44 inches bust mea ure. Size 36 requires 3⅛ yards 36-inch m terial.

No. 2087—One-Piece Dress. Cut in sizes years, 36, 38, 40, 42, and 44 inches bust mea ure. Size 36 requires 3⅛ yards 36-inch m terial with ⅞ yard 36-inch contrasting.

No. 2182—Surplus Closing Frock. Cut sizes 16 years, 36, 38, 40, 42, and 44 inch bust measure. Size 36 requires 2⅞ yar 40-inch material with 1⅛ yards 36-inch co trasting.

No. 2131—Slip-on Blouse. Cut in sizes years, 36, 38, 40, and 42 inches bust measu Size 36 requires 1⅝ yards 36-inch materi with 1⅝ yards of binding.

How to Order Patterns

Enclose 10c in stamps or coins (wrap co carefully) for each pattern ordered. Se your order to Fashion Department, Hoar Dairyman, Fort Atkinson, Wis. Every pa tern is seam-allowing and guaranteed to perfectly. Do not fail to state size.

Fashion Magazine

Our Fall and Winter Fashion Magazine co tains about 300 styles, new hot-iron transf designs, illustrated dressmaking lessons, section devoted to styles for children f school, play, and "dress-up" occasions a there are also two pages of pretty Christm gifts that you can make at home. This bo is worth many times its price so we sugg when you send your pattern order that y enclose 10c extra for a copy. Address yo order to Fashion Department.

bent on picking me to the bone every time I try to reap the results of my spring planting.

Every place where I have friends who write me letters conditions seem much the same. I went through a flood once and I've seen many a drought for I used to live in a state famous for them and I have come to believe that too much rain is, on the whole, less discouraging than too little, so I try to take things calmly.

This little verse I found the other day made me think that preparedness might be a good idea, for where would Noah have been without his ark?

Old Noah kep' a-chippin' and a-nailin' and
a-sawin'
And all his wicked neighbors kep' a-laffin'
and a-pshawin'
But Noah never minded 'em, he knowed
what's gwine to happen,
And forty days and forty nights the rain it
kep' a-drappin'.

LUCY THOMPSON.

Shorts

When storing small pieces of cheese wrap it in a cloth that has been wet with vinegar and wrung dry. It will keep the cheese from drying out so much.

Kerosene and a heavy brush will clean galvanized pails and washtubs quickly and perfectly. After they have been cleaned with kerosene wash with soap suds and warm water.

If you have been worrying about getting good brown tops to your pumpkin and squash pies, try this method the next time: separate the yolk from the white of an egg, and beat the yolk in a cup until light, then add one teaspoon of cream or milk, and with this mixture brush over the top of the pie using a soft brush or a piece of cheesecloth. I know a woman who uses this method and she says it gives a shiny brown top like the pies bought in the best shops. I have tried it and was delighted with the method.

To keep left-over pimentos turn the contents of the can into a glass jar, and cover to the depth of half an inch or more with olive oil. In this way they will keep for weeks.—SOPHIA K. ORMOND.

A Few Suggestions

If your white or colored enameled beds become soiled, try cleaning them in warm water in which a few drops of turpentine has been dropped. They clean so easily and the enamel is just as "shiny" as when new.

Use a little camphor on a cloth to clean spectacles and mirrors. It forms a white sediment on glass and when this is removed the glass just sparkles. These are easy to use and the results are marvelous.

West Virginia. (MRS.) L. O. KIDDER.

His Wife's Job

A shiftless specimen of humanity came down town one morning and, joining a group on a corner, announced that he was going to leave town—said he could not live in it any longer. Some one asked him what was the matter.

"Well," he said, "the town is all right; but it's the hardest place in the world for a woman to get work in."—Everybody's Magazine.

The beauty of the house is order,
The blessing of the house is contentment,
The glory of the house is hospitality.
—House Motto.

Friendly Talks For Farm Folks

A farmer who doesn't buy a vacuum freezer and have ice cream every summer day in the year is missing the best dessert to be had and one which is easier to make than any other, as well as being far cheaper than pies and fried cakes. Most farmers' wives will bear me out here—not to speak of the kids in the family.

If the San Paulo mess down in Brazil becomes so acute that Americans can't get their usual cup of morning coffee, perhaps a few millions of them will perforce be obliged to try out milk—and then will naturally never return to the less healthful way.

They can live in their cities in winter—I don't know but I would myself if I had the price—but in the summer the man or woman who doesn't stay on a going farm and there eat his or her head off of field strawberries and fresh asparagus and little green peas and new potatoes and purple raspberries and Astrachan and strawberry apples and ice-cold fresh milk and all the rest, is missing the whole best works of Nature when the latter really sets out to feed a person properly. Yum, Yum! ! There are worser places than the farm around this time 'o year!

Everywhere we go the farmers' wives are bobbing their hair. Personally we are hoping that mustaches and VanDykes for the ladies will never become too popular.

Uncle Ham Burden says that if anything makes him feel meachin, it's to have a stranger refuse to take his check. Especially so when a fellow is ten miles from home with the last dollar bill lost out of his pocket—and the gas tank clean empty.

Although milk-fed children lose their first milk teeth at a tender age, these will be succeeded by practically permanent teeth if the milk was fed copiously and continuously.

Joe Beardley, the hired man, says he's working for the friendliest boss he ever had, as every morning the latter hollers up the stairs at 4 A. M. "Mornin', Joe".

Old Ike Swan thinks these new fangled two-pant suits must be awful inconvenient, changing galusses back and forth.

Now that the Board of Health insists that old Bud Mowers spread his manure instead of leaving it all year under the cow stable window, Bud allows that he'll have to quit farming anyway, as the extra hay he has to cut these days from so much unaccustomed fertility is just the last straw.

Grandma Bascom who is a great reader, can't make up her mind for the life of her whether to cure her rheumatism by having her teeth pulled or take three yeast cakes a day and so become a new woman. As a compromise we suggest a diet of milk.

David Miller often remarks that he would rather grow the prize field of ensilage corn in Crater County than be president of these United States. In our humble opinion David's is a wise choice.

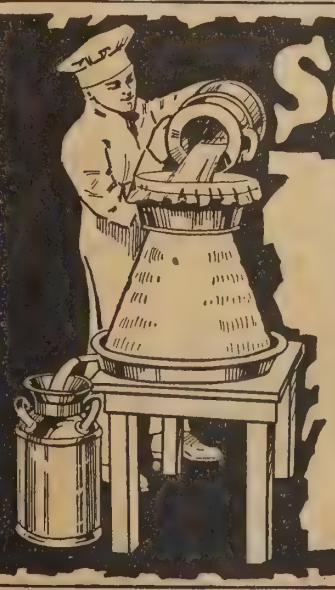
New York. HELEN S. K. WILLCOX.



"Standard"
PLUMBING FIXTURES

Write for free 64-page catalogue with covers beautifully printed in seven colors. It illustrates many fixtures in a wide range of designs and prices.

Standard Sanitary Mfg. Co., Pittsburgh



Send No Money

For this practical Cooler and Aerator, which cools the milk in one minute, prevents growth of bacteria and removes all stable and other odors. The milk or cream is poured in at the top through a gauze strainer and it comes out a minute later at a low temperature.

The U. S. Department of Agriculture recommends that milk be cooled quickly as milk cooled as fast as milked keeps sweet longer and gives a bigger cream line.

The *CP* CONICAL COOLER is substantially made. Uses ice or running water—as easily cleaned as a common milk pail.

Send your name and address today and the *CP* CONICAL COOLER will be shipped by express at once—when delivered pay your expressman $8.00 for the No. 2 (18-qt. size suitable for 25 cows or less) plus the express charges. Money returned if not satisfied at the end of 10 days. (Other sizes are: No. 3—34-qt., 25 to 50 cows $9.50, and No. 4—48-qt., 50 to 100 cows $12.00.) Coolers are too large to go by parcel post.

FREE—Send for big Dairy and Milk Dealer's Catalogue

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68 W. Kinzie Street, Chicago

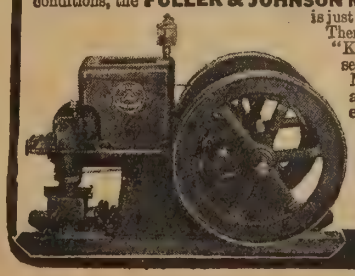
STEADY, EVEN POWER

If you want an engine that delivers a surplus of steady, even power, indoor or out, regardless of weather conditions, the **FULLER & JOHNSON Model "K" Throttling Governor Kerosene Engine** is just what you are looking for—a real all-purpose engine.

Then too, characteristic of all Fuller & Johnson Engines, the Model "K" is "Easy to Start." It also operates perfectly on cheap kerosene, or similar fuels separately or mixed in any proportion.

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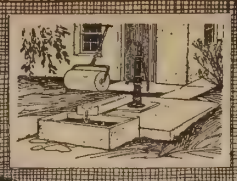
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More than 150,000 foresighted people

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Why don't you?

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Of all farm needs fence is the foremost necessity

Drive Like an Arrow Anchor Like a Rock

For better protection, longer service and lowest yearly cost, ask your dealer for Zinc Insulated Fences and Arrow Tee-Steel Posts.

Zinc Insulation means 40% to 100% more galvanizing—longer life fence.

Arrow Tee-Steel Posts are built like a railroad rail. Stronger and sturdier. Big split-wing arrow anchor roots solidly into the ground. Easy to drive.

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Do Your Own Shredding



with a ROSENTHAL Corn Husker and Shredder

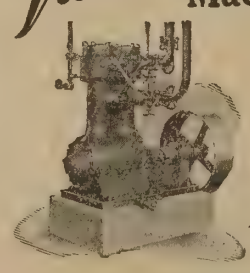
Most economical and satisfactory way of handling your corn crop. No delay, no extra help. Do it in your own spare time. Two sizes for individual use, 6 to 15 h. p. Also make two larger sizes for custom work. Over 25 years in the field. Write for catalog and prices, also useful Souvenir FREE. State H. P. of your engine.

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Send for Bulletin No. 29R It is FREE

THE VILTER MANUFACTURING CO.

874 Clinton St. Estab. 1867 MILWAUKEE, WIS.

Iowa Celebrates Jubilee Fair

(Continued from page 209)

had been shown thirteen times previous and placed first and junior champion at every event and was awarded grand championship honors nine times. Although there was considerable outside competition, Iowa Guernsey breeders succeeded in taking their share of the prize money.

In the Ayrshire division two animals were shown which, barring accident, will be heard from again. One was the senior yearling, grand champion bull Fairfield Boomerang, owned by Fairfield Farms, Kansas. He is out of Willowmoor Mandy, a cow with a record of above 16,000 lbs. of milk, and sired by Lessnessock Buntie Lad, a good show bull. The other animal was the senior and grand champion female Willowmoor Elsie Ruth owned by Ayrcroft Farm, B. B. Simmons and Sons of Wisconsin. Although carrying a little extra flesh at the time of showing because dry, in working form she should make them all step to keep her company.

With 72 animals entered, the Board of Control was easily the outstanding exhibit among the Holsteins. Few state institutions can boast of bigger and better Holstein exhibits than this. It is notable that the state institutions in Iowa have selected one breed and have developed them to a point where they need not be ashamed of either their show ring appearance or their achievements at the milk pail.

In discussing the dairy cattle show we should not forget that two dairy calf club boys of Iowa were among the exhibitors who won honors. Robert Peterson won a blue ribbon on his junior yearling Holstein bull, and Marple Mountain placed third with a Guernsey heifer amid particularly strong competition in a large class.

A complete list of first prize winners for all breeds follows:

Jerseys

Judge: F. W. Barber, Tennessee.

Bull 4 years or over—Meredith Jersey Farm, Iowa, on Fashionable Fern Lad. Bull 3 years under 4—Campbell Jersey Farm, Iowa, on You'll Do Torono Lad. Bull 2 years under 3—Wardmere Farms, Missouri, on Blonde's Oxford Baron. Senior yearling bull—Waterloo Jersey Farm, Iowa, on Financial Beauty King Mark. Junior yearling bull—Walter E. Wright, Oklahoma, on Xenias Ashley King. Bull, senior calf—Wardmere Farms on May Queen's Noble.

Cow 4 years or over—Inderkill Farms, New York, on Financial May Queen. Cow 3 years under 4—Inderkill Farms on Sybil's Majesty Crocus. Heifer 2 years under 3—Meredith Jersey Farm on Successful Golden Cowslip. Senior yearling heifer—Meredith Jersey Farm on Financial Successful Queen. Junior yearling heifer—Wardmere Farms on Noble Champion Queenie. Heifer, senior calf—Inderkill Farms on Fern's Sociable Sybil.

Senior and grand champion bull—Fashionable Fern Lad. Junior champion bull—Xenias Ashley King.

Senior and grand champion female—Financial May Queen. Junior champion female—Financial Successful Queen.

Graded herd—Meredith Jersey Farm. Yearling herd—Waterloo Jersey Farm. Breeders' calf herd—Waterloo Jersey Farm. Get of sire—Campbell Jersey Farm on get of Combination You'll Do. Produce of cow—Meredith Jersey Farm on produce of Iria's Golden Cowslip.

Guernseys

Judge: C. B. Finley, Iowa.

Bull 4 years or over—Albert L. Hyzer, Wisconsin, on Lassie Boy of the Prairie. Bull 3 years under 4—M. A. Seybold and Sons, Wisconsin, on Navigator's Rival of Maple Heights. Bull 2 years under 3—Mountain Brothers, Iowa, on Kitchener's Cavalier of Iowanola. Senior yearling bull—Mountain Brothers on Betty's Master of Iowanola. Junior yearling bull—W. W. Marsh, Iowa, on Cherub's Prospect of the Prairie. Bull, senior calf—U. A. Woodbury II, Vermont, on Appletree Point Marose Admiration.

Cow 4 years or over—W. W. Marsh on Honey Bloom of the Prairie. Cow 3 years under 4—A. L. Hyzer on Guernseydale Barbi. Heifer 2 years under 3—W. W. Marsh on Golden Queen of the Prairie. Senior yearling heifer—W. W. Marsh on Lilac of the Prairie. Junior yearling heifer—W. W. Marsh on Rose Petal of the Prairie. Senior heifer calf—Mountain Brothers on Maxine's Fig Tree of Iowanola.

Senior and grand champion bull—Lassie Boy of the Prairie. Junior champion bull—Cherub's Prospect of the Prairie. Senior and grand champion female—Honey Bloom of the Prairie.

Graded herd—W. W. Marsh. Yearling herd W. W. Marsh. Breeders' calf herd—Mountain Brothers. Get of sire—W. W. Marsh on get of Cherub's Prince. Produce of cow—W. W. Marsh on produce of Hayse Golden Cherry of Prospect.

Holsteins

Judge: L. S. Gillette, Iowa.

Bull 4 years or over—Board of Control, Iowa, on Cherokee Ormsby Piebe. Bull 3 years under 4—Modern Woodmen of America Sanatorium, Colorado, on Corwin Wimple DeKol Ormsby. Bull 2 years under 3—F. E. Prince, Texas, on Castine Sir Johanna Nig Ormsby. Senior yearling bull—Modern Woodmen of America Sanatorium on Woodcraft Pontiac Champion Star. Junior yearling bull—Robert Peterson, Iowa, on Tritomia Ormsby Veeman. Bull, senior calf—Fred Pieplow, Iowa, on King Piebe Ormsby Cornucopia.

Cow 4 years or over—Modern Woodmen of America on Zwingara Segis Clothilde. Cow 3 years under 4—Marlow and Randall, Minnesota, on Mankato O. K. L. Blanche. Heifer 2 years under 3—Modern Woodmen on Woodcraft Korndyke DeFreule. Senior yearling heifer—Gerald Peterson, Iowa, on Riverdale Ota Van Friesland. Junior yearling heifer—Mudcura Farms, Minnesota, on Oakwood Piebe Allie. Senior heifer calf—Modern Woodmen Sanatorium on Woodcraft Zwingara Julia Pontiac.

Junior and grand champion bull—Woodcraft Pontiac Champion Star. Senior champion bull—Corwin Wimple DeKol Ormsby.

Senior and grand champion female—Zwingara Segis Clothilde. Junior champion female—Oakwood Piebe Allie.

Graded herd—Modern Woodmen Sanatorium. Yearling herd—Board of Control. Breeders' calf herd—Fred Pieplow. Get of sire—John M. Kelley, Wisconsin, on get of Beets Longfield Canary Cornucopia. Produce of cow—John M. Kelley Farms on produce of Alcartra Johanna DeKol Burke 6th.

Brown Swiss

Judge: C. B. Finley, Iowa.

Bull 4 years or over—Mooney and Larrabee, Iowa, on Carl the 6th. Bull 3 years under 4—A. E. Bower and Son, Illinois, on Edgard C. Bull 2 years under 3—A. E. Bower and Son on Elsie Nick A. Senior yearling bull—A. E. Bower and Son on Bonick of Bowerhome. Junior yearling bull—Fred Reuter and Sons, Wisconsin, on Meadow Green College Boy. Bull, senior calf—Mooney and Larrabee on land.

Cow 4 years or over—Mooney and Larrabee on Marie Gronyer. Cow 3 years under 4—Dr. C. F. Osborne, Iowa, on Henrietta Queen. Heifer 2 years under 3—Fred Reuter and Sons on Butternut Valley Schorie. Senior heifer yearling—A. E. Bower and Son on Elsie A. of Bowerhome. Junior yearling heifer—Fred Reuter and Sons on Carl's Ada. Heifer, senior calf—Fred Reuter and Sons on Carl's Lassie.

Senior and grand champion bull—Edgard C. Junior champion bull—Meadow Green College Boy.

Senior and grand champion female—Marie Gronyer. Junior champion female—Elsie A. of Bowerhome.

Graded herd—Mooney and Larrabee. Yearling herd—Fred Reuter and Sons. Breeders' calf herd and get of sire—Mooney and Larrabee on get of Carl 6th. Produce of cow—Fred Reuter and Sons on produce of Teckley's 2nd of Gladmont.

Ayrshires

Judge: L. S. Gillette, Iowa.

Bull 4 years or over—F. H. Baskins, Iowa, on Netherhall Rising Star. Bull 3 years under 4—Ayrcroft Farm, Wisconsin, on Ayrcroft Cavalier. Bull 2 years under 3—F. H. Baskins on Cavalier's Freetrader. Senior yearling bull—Fairfield Farm, Kansas, on Fairfield Boomerang. Junior yearling bull—Ayrcroft Farm on Ayrcroft Cavalier Lord. Bull, senior calf—Ayrcroft Farm on Ayrcroft Red Boy.

Cow 4 years or over—Ayrcroft Farm on Willowmoor Elsie Ruth. Cow 3 years under 4—Ayrcroft Farm on Ayrcroft Ethel. Heifer 2 years under 3—Fairfield Farm on Muirlaught Hilda Douglas. Senior yearling heifer—Ayrcroft Farm on Ayrcroft Snow Lillie. Junior yearling heifer—Ayrcroft Farm on Ayrcroft Roma Nancy. Senior heifer calf—Fairfield Farm on Fairfield Kate.

Junior and grand champion bull—Fairfield Boomerang. Senior champion bull—Ayrcroft Cavalier.

Senior and grand champion female—Willowmoor Elsie Ruth. Junior champion female—Ayrcroft Snow Lillie.

Graded herd, yearling herd, and breeders' calf herd all won by Ayrcroft Farm. Get of sire—Fairfield Farm on get of Lessnessock Buntie Lad. Produce of cow—Fairfield Farm on produce of Willowmoor Mandy.

A RADIO SET for Every Hoard's Dairyman Reader



We know that every Hoard's Dairyman reader is interested in Radio. It is the most fascinating invention of modern times. There's no way of describing the thrill one receives when he tunes in his first station. Just to think that by a turn of the wrist you can pick up at will programs of music, speeches, market reports, conventions, etc., from Boston, or Atlanta or Chicago or Dallas! Just to think that, no matter where you live, the air is full of entertainment and education for any one equipped to pick it up! No more is there such a thing as isolation! No matter how the blizzards rage, no matter how impassable the roads, the home with a Radio Set is always in touch with the world!

Yes, every Hoard's Dairyman reader WANTS a Radio Set. But wanting one and getting one—in these times—are frequently two very different things.

Here's an opportunity to get a receiving set — as little or as big as you want — without spending one cent of your money. It's an opportunity open to every reader of Hoard's Dairyman who is willing to recommend the "Dairy Gospel" to his neighbors and get them to subscribe.

We have made arrangements with the Crosley Radio Corporation—one of the largest manufacturers in the country, and the Burgess Battery Company that enable us to offer these sets for what we think is a remarkably small number of subscriptions. Just a few hours spent in visiting your neighbors will earn one of the smaller sets—by the way, as far as radio reception is concerned the small sets are just as good as the big ones—and a little extra effort will net you the big 3 R 3 Crosley Tryrdin, the best set Crosley makes.

Start now! We will help you!

The first thing to do, if you would like one of these sets, is to mail us the coupon below. As soon as we receive it, we will send you

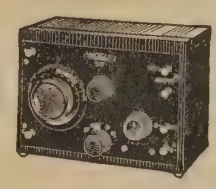
1. A circular describing these sets in detail.
2. Sample copies of HOARD'S DAIRYMAN and a receipt book.
3. A folder telling how to go at it to get subscriptions.

Don't wait! Be the first one on the job! Don't wait to mail the coupon and get started! The first one on the job in your community will find it easiest to get the subscriptions. And the sooner you get started, the sooner you will be able to tune in. And between now and election are the days you don't want to miss having a radio! The air is full of politics. And election night you'll be able to get the returns—AT HOME.

Here's the Coupon! ---send it now

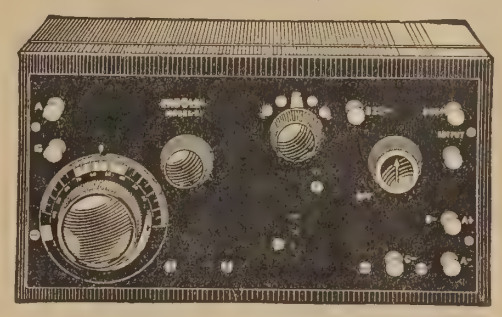


Crosley Type 50



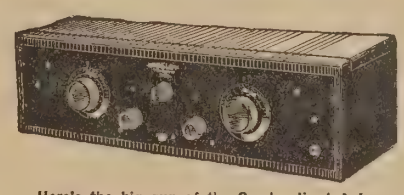
This is a one tube regenerative set—a little peach. It will bring in stations up to 1,000 miles or more good and clear on head phones. Very simple to erect; inexpensive to run, and easy to tune. The writer of this ad has one in his own home, and if he couldn't get another, he wouldn't sell it for $100.00, and it didn't cost anywhere near that!

The Crosley 51



This is a two tube set, which gives a little greater volume on long distance, and will operate a loud speaker on stations up to 500 miles away. The manufacturers claim this to be the most popular radio set in the world.

The Crosley 3R3



Here's the big gun of the Crosley line! A beautiful three tube set; so efficiently hooked up that it gives five tube results from three tubes. It possesses wonderful selectivity; brings in stations from great distances; is very simple to tune, and easy to "log"—which means that once you find a station with the dials set in a certain position, you can always get the same station when you set the dials there. No one needs or could ask for a better set than the 3 R 3.

Take Your Choice --- and send the Coupon NOW!

The first fellow who starts in your neighborhood will be the one who will get his subscriptions easiest and quickest.

C-O-U-P-O-N

HOARD'S DAIRYMAN,
Fort Atkinson, Wisconsin.

I am going to do my best to earn one of your Crosley, Type.....Radio Receiving Sets. Let me know just how many subscriptions I will have to get and send me whatever you think I need to get started.

Name .....

P. O. .....

R. F. D. No.....State.....

HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin

POULTRY On The DAIRY FARM



J. B. HAYES

Furniture

Any extreme in equipping a poultry house is possible at the present time. Many lines of manufactured articles are available from which one can select the amount and number desired. These things are made with the idea of being mite proof, easily cleaned and adapted to their purpose. When one can strike a combination of those characters the ideal has almost been attained. Although the prices may seem to be prohibitive, the construction is such that the life of the article is unlimited when given proper care and attention.

From the plans that were submitted in last week's issue, one will notice that the nests are banked along the side wall where they belong. When one places dropping boards in the house it is with the one idea of making the entire floor space available for the flock. When nests are suspended beneath the table, the back part of the house is darkened, it is not available for scratching, the hens become accustomed to nesting there and it puts the nests in the most filthy part of the building. The only reason for placing them in that place is to secure darkness and that is an erroneous idea.

The nests can be banked along either wall in tiers of four or five. This will make a compact battery that is easily accessible both to the hens and the caretaker. A nest 12" x 14" x 14" will allow sufficient space and should easily be dismounted. The top of the lower one should be the floor of the upper and all parts should be hooked together rather than nailed. If seclusion for the hen is desired the entire battery can be moved out from the wall a sufficient distance to allow the hens to enter from the back. A drop front will then allow one to collect the eggs.

When an open nest is used there is a greater likelihood of clean eggs. If one notices dirty litter it will be cleaned but when the interior is darkened it will develop into a game of chance. Another important point in promoting clean eggs results from placing the nests in the opposite end of the building from which the flock enters. During rainy weather, walking across clean litter will remove a great deal of mud from the hen's feet.

Above the nests one can place the broody coop. Wire sides and top may be used but the floor should be of slats. Wire tends to cause sore feet while the slats prevent this and yet allows the droppings to fall through to the pan below. A suitable broody coop is just about as necessary as the dry mash hopper.

The construction of this house will allow the water pan stand to be placed in the center of the house even if a center support post is not deemed necessary. This, too, should be elevated two and one-half feet from the floor to prevent dampness in the litter and allow that portion of the floor for the flock.

If a pail is used as the watering device, a hole can be cut in the center of the platform in which the pail can be more firmly set. Even a large open pan will prove satisfactory. Freezing will result during the winter but if the water is given to the flock while hot, it will remain for some time and will only need regular replacing.

Mash hoppers are always a problem for the operation of them is always dependent upon the construction of the mixture that is used. If the mash contains too much bulk the hopper will clog while a very finely ground feed will be wasted. The basic principles of all the hoppers are about the same and changes in the feeding trough will generally remedy other defects.

It is almost impossible to properly manage a flock without dry mash so some personal attention to the construction of the feeder is needed. The most common defect is a lack of sufficient hopper space to allow the entire flock abundant supply. On this account a two-way feeder that will permit the hens to work from each side is preferable to a one-sided wall hopper.

The trough feeder that is elevated from the floor on a platform with a revolving cylinder above it to prevent roosting and a board set in from the front about two inches wide and at a 45 degree angle, will prove satisfactory. This can be criticized on the basis of not holding any great supply of feed and needs constant replenishing. That is true, but one can about as easily put mash from a wall bin into the hopper as to push the feed down when it clogs in the other style.

A dropping board is required. An elevation of two and a half to three feet from the floor is sufficient to permit light to penetrate the rear of the house. The platform of matched boards allows easier cleaning and gives a more substantial construction. Hinging at the rear allows them to be raised during the day and removed from the house in summer if field work will not permit of regular cleaning.

Eight inches from the dropping board is about the proper height for the roosts with a fourteen inch space between them. Regular 2 x 4s that are placed on end and have the upper edges bevelled off are very satisfactory. Cross arms that are hinged to the rear wall will serve as supports and the roosts should be countersunk into this support and not nailed. Freedom from mites is more certain in this way.

In estimating roosting space one should allow six to eight inches per fowl. Overcrowding can often seriously affect the condition of the birds as well as the production. It is understood that the roosts and dropping boards are level and not set at an angle.

Animal Protein Helps Hens Fill Egg Basket

That animal protein is required for profitable egg production is clearly shown by a test just completed at the Ohio Experiment Station. The figures for the nine weeks of the experiment show 583, 245, 190, and 369 as the number of eggs laid by lots 1, 2, 3, and 4, respectively, of 28 White Leghorn hens each.

This wide difference was due to the meat scrap ration, it is claimed, as all received the same care and were equally good layers naturally as proved by the previous month's record of 305, 345, 390, and 334 eggs, when all lots received the balanced ration of grain and mash containing 20 per cent meat scraps. During that month a light feed of grain was given in the morning and all they would eat in the evening, and the mash was kept before the hens all the time.

During the experiment, Lot 1 was continued on this balanced ration. Lot 2 was given all the grain the hens would eat, but no mash. Lot 3 was continued the same as Lot 1 except the meat scrap was omitted from the mash. Lot 4 received the same as Lot 2 during the first 5 weeks; then the mash with meat scrap was returned, making the same ration for the last 4 weeks as Lot 1.—Press Bulletin, Ohio Experiment Station.

Bulletins of the Week

Home Canning, by W. V. Cruess and A. W. Christie. Circular 276, California Experiment Station, Berkeley, Calif.

Studies on a Nutritional Disease of Poultry Caused by Vitamin A Deficiency, by J. R. Beach. Bulletin 378, California Experiment Station, Berkeley, Calif.

Dig a Trench Silo, published by The Fairmont Creamery Co., Moorhead, Minn.

Saving Soil by Use of Mangum Terraces, by E. W. Lehmann and F. P. Hanson. Circular 290, Illinois Experiment Station, Urbana, Ill.

A Program of Corn Improvement, by C. M. Woodworth. Circular 284, Illinois Experiment Station, Urbana, Illinois.

The Movement of Farm Population, by E. C. Young. Bulletin 426, Cornell Experiment Station, Ithaca, New York.

New Life for Light Plants

Replace your worn battery with a UNIVERSAL. There's one to fit *every* make of plant—Delco, Alamo, Genco, Lalley, etc. We make a generous allowance for your old battery.



Sealed Glass Cell

UNIVERSAL "Nu-Seal" cells come to you *fully charged*. Nothing to do but hook up—it's easy and they are ready for a long life of work.

No Cleaning, Ever

Ample space below the plates holds all the sediment till battery is worn out.

There's a UNIVERSAL Battery made for every job requiring a storage battery—Automobiles, Tractors, Radio, Farm Light and Power Plants.

They have proven their dependability in over 20 years of service. UNIVERSAL Hard Plates is only *one* reason for their remarkably long, trouble-free life.

A Rechargeable "B" Battery

A new UNIVERSAL "B" Battery for Radio! Now you can be assured of *constant* clear reception, steady voltage, a stronger, more even flow of current. No losing of stations—no fading reception. A full line of "A" Radio Batteries also. Write for catalogs.

FREE BOOKS

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Write today for your copy of our 16-page instruction booklet on care of "A" and "B" Radio Batteries. The only book of its kind ever published.

on Farm Light

An interesting book, telling how to get best results from your farm light batteries. Every farm light plant owner needs it. It's free. Just ask for it! [733]

UNIVERSAL BATTERY CO.
3406 So. La Salle St., Chicago, Ill.

He takes his pipe 1800 miles into China

And for a very good reason

No, it isn't because his wife objects to his smoking in the house. We don't know that he has a wife, for that matter.

Mr. Mellor takes his pipe far into the interior of the Land of Confucius because he is attached to the good U. S. S. Palos, which, among other waters, sails the upper Yangtse Kiang.

This is what Mr. Mellor writes:

U. S. S. Palos
Chung King, China
January 24, 1924

Larus & Bro. Co., Richmond, Va.
G. C. Schloss,
Dear Sir:

"I have just been reading a letter that was sent to our canteen yeoman and thought that this would be a good time to tell you of our appreciation of the fine tobacco that your firm shipped us. I feel that I can say the same for the crew of this ship.

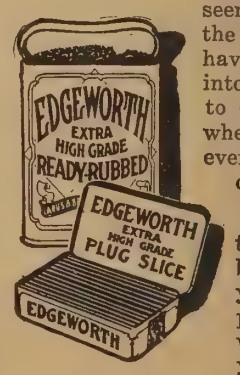
Yes, this sure is an out-of-the-way place and we sure enjoy a good smoke. We feel that we can at least rely on your tobacco always being fresh, especially that in the glass jars.

This ship is now eighteen hundred miles in the interior of China on the upper Yangtse Kiang. One of the greatest pleasures we have is riding ponies out in the hills surrounding Chung King; and there is hardly a man but what carries one of your small tins of tobacco with him on these trips. Every man on the ship smokes Edgeworth and quite a few chew it too.

Another thing that I might mention is that the empty jars make good containers for shaving gear and soap on board ship.

Speaking for all hands and the ship's cook I can say that we will uphold your fine tobacco on this part of the river as every man is for Edgeworth first, last and always. Best regards to Edgeworth from the crew of the U. S. S. Palos on the Yangtse River.

Sincerely yours,
(signed) Robert N. Mellor



This makes it seem pretty soft for the members who have only to drop into a corner store to get Edgeworth whenever and wherever they may run out.

If you would try before you buy, let us send you free samples of Edgeworth and give you a chance to learn at first hand why so many smokers like it.

Write your name and address to Larus & Brother Company, 57 South 21st Street, Richmond, Va.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound, and also in several handy in-between sizes.

We'll be grateful for the name and address of your tobacco dealer, too, if you care to add them.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Ready-Rubbed for the same price you would pay the jobber.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Diagnosis of Disease

Before giving a sick animal any sort of treatment it is of the utmost importance to determine correctly the seat of the ailment, its nature, and, when possible, its cause. Unless such a determination is made many an error in treatment will occur. A drug wrongly chosen or administered may do much more harm than good. In some instances it will prevent recovery that otherwise would have taken place, for Nature if not interferred with often restores an animal to health and man's chief aim, in perhaps a majority of attacks of disease, should be to assist Nature in every possible way. Fortunately animals often recover despite the erroneous treatment given them, while in other cases the medicine administered is harmless and therefore does not hinder recovery. In all cases it is far better not to give any medicine than the wrong one and before dosing the animal one should therefore study the symptoms that a correct diagnosis may be made.

That symptoms may be correctly interpreted it is necessary for the observer to have studied many animals in health that he may quickly and rightly recognize departures from the natural actions and functions when sickness occurs. To that end let every owner and attendant become practically acquainted with each of his animals in health and make himself conversant with the habits and actions of all farm animals. No man has to be more observant than the farmer if he is to succeed in his business and the earlier a farm boy learns to like animals and note their behavior and peculiarities, the better will he be fitted for his life's work in giving them intelligent care and treatment. Even the "voice" of every farm animal conveys impressions to the trained observer. It is capable of many different expressions and this language of live stock every breeder and feeder should understand. Just an example or two may be cited in evidence. A dog attacked by rabies has a changed voice. It has a half-bark, half-howl call and that should warn the hearer. There are several variations in the calls of cattle and of horses and each has its particular significance. The boy or man who becomes acute in recognizing their meaning will also be sure to note the condition of an animal's skin and hair, its various attitudes when at rest or in motion, the way in which it anticipates feeding and then consumes its feed. Each animal in a row of dairy cows may also show slight differences in its actions, appetite, and manner of eating. Knowing these the attendant at once notices the slightest change as it occurs and instantly tries to determine the cause. Early detective work of this sort often means prevention of serious disease. The amount or quality of feed at once is altered or modified and often feed has to be withheld until the animal can care for it in a normal way.

In this connection the attendant should likewise become a correct and experienced reader of the signs offered for inspection by the amount, consistency, color, and condition of the feces of each animal in his charge. Knowing the normal appearances of "manure" the attendant passing behind each animal the first thing each morning will at once notice divergencies from the natural state and arrive at useful conclusions relative to changes that should be made in the ration.

Some of the hints given by the appearance of feces are: Scant, dry, hard, glistening droppings indicating constipation; pale, clay-like feces, often slimy, indicating torpidity or derangement of the liver; mucus covered feces or long strings of mucus indicating fever or a dangerous form of irritation or inflammation of the bowels; diarrhea indicative of severe irritation of the lining membrane of the intestines and of many sorts, ranging from simple scours to dysentery of several types; suppression of feces, indicating impaction; blood in the feces usually characteristic of malignant disease, such as anthrax or hemorrhagic septicemia, and many other departures from the normal that will help the keen observer to make a correct diagnosis. At the same time the urine is as carefully noticed and when these things have been studied the thermometer will be used, the pulse taken, and the respirations counted.

In time, by patient, close, correct study, every attendant upon animals may become expert in recognizing the symptoms of disease and will therefore become capable of giving first aid treatment and can help the attending veterinarian greatly by giving him a correct history of the case he is asked to treat.

Obstructed Teat

I would like to get a little advice concerning the treatment of a cow with a defective teat.

About a month ago the end of front teat on right side seemed obstructed on the lower end. The rest of the teat has always been normal.

I have used a milking tube to draw milk and kept a teat plug inserted between milkings. At times I can milk by hand but milk comes in a spray instead of a stream, in dicating some obstruction.

I wish to dry this cow off prior to calving or within the next two weeks but hesitate, owing to belief opening will heal shut altogether and render this quarter useless when she freshens.

Whittlesey, Wis. G. S.

We think it likely that if you squeeze the tip of the teat a warty growth will protrude. If there is no growth a stricture or thickening and hardening of the lining membrane of the duct of the teat is the probable cause of the spraying of milk. If a growth is there the veterinarian may be able to cut it out or burn it out with a caustic, but we cannot advise you to attempt such treatment. If there is no growth slitting down through the teat stricture in four different directions with a sterilized teat bistoury would be the proper treatment as use of dialators has failed. After the veterinarian operates, strip away a little milk at frequent intervals to keep the duct open and be careful to disinfect the teat now and then by immersing it for a few minutes in hot water containing all the boric acid it will dissolve.

Diseased Cows

I bought a number of cows last fall that had something in their throats. They coughed quite badly. Also bought some later and they also caught it.

Glen Ellyn, Illinois. H. V.

Tuberculosis probably causes the symptoms described. The disease is incurable and contagious and makes the milk dangerous for use by man or animals. To determine the matter you should at once have a qualified veterinarian apply the tuberculin test. Reacting cows will have to be disposed of in the manner prescribed by law which the veterinarian will explain.

We Have Revised and Improved Our

VEST POCKET HERD BOOK

The new editions contain numbered and lined pages; and have room for more records and services. We sold hundreds of these leather bound books last year and feel confident that with the small improvements the book will be even more popular. Book will accommodate herd of one hundred head. Complete with pages for full services, gestation tables, index, etc.

PRICE $2.00 *Postpaid*

HOARD'S DAIRYMAN
Fort Atkinson Wisconsin

AYRSHIRES

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00
GLEN FOERD FARMS, Torresdale, Pennsylvania.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires
AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.
CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.
B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay, Grand Champion over all breeds Junior live stock show, Madison, 1922.
Wm. NISBET & SONS, Richland Center, Wis.



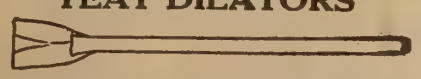
Edgerstoune's Luxury Bond
Born Aug. 10, 1922

Edgerstoune's Luxury Bond
A Promising Young Bull For Sale

His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.

EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

MEDICATED WAX TEAT DILATORS



For sore teats, obstructions, Spiders, Hard Milkers, etc. 25c per doz., or 5 doz. for $1.00, postpaid. MOORE BROS., Dept. H, Albany, N. Y.

La Belle Silver Fox Farm

INCORPORATED

Breeders of—
HIGHEST QUALITY REGISTERED
SILVER BLACK FOXES
Fully Guaranteed Breeding Stock for Sale



It will pay you to investigate this wonderful new industry. We solicit your consideration.

DR. O. STADER, Secretary, Oconomowoc, Wis.
Members of the National & Wis. Fox Breeders' Ass'ns.

JERSEYS

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

Belswood Farm Jerseys

Four choice bulls, 5 to 12 months of age, all out of Register of Merit dams. Accredited herd.
A. F. BLOCK, Mgr. Norwood Park, Ill.

"Just Jerseys"

Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.
The Oaklands, R. 5, Ann Arbor, Mich.

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.



Raleigh's Torono's Meme 544207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood

We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.

HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

Ever Failing or Never Failing Pastures

(Continued from page 205)

clover the first fall puts it back a good 10 days the next spring."

Seed One and One-half Acres Per Cow

Because sweet clover is the finest soil builder in the world and needed on almost all soils for their own good, one and a half acres of sweet clover per cow should be seeded in the small grain. With this double acreage which the cows can not keep down so close, they may be turned on earlier in the fall and thus prevent a gap that sometimes occurs between the end of the summer pasture and the time the new clover in the stubble can be turned onto. With the larger pasture, the sweet clover will take care of itself and go into winter with the proper development.

Professor H. J. Snider of the University of Illinois, has dug sweet clover roots at all stages of the plant's growth and finds that, in most soils, when the tops are a foot high the roots go down three feet deep.

If we once get a large, deep root system developed on sweet clover plants, the cows can not eat this up, and this large root system is what keeps the plants growing so vigorously the second year, even through dry weather. It is what the farmers say gives lots of "pep" to their sweet clover pastures.

I had a neighbor who started to grow sweet clover for pasture. He turned his cows onto the stubble as soon as the last bundle of grain was out of the field. The clover was not more than eight inches high, and his large herd soon ate it down to the ground and kept it eaten close the remainder of the summer. The inevitable result was that he got a small amount of feed per acre and was disgusted with the crop.

Pasturing Sweet Clover the First Summer

Through lack of forethought or otherwise, dairymen sometimes find themselves without pasture in the spring and want to sow some crop that will afford pasture almost immediately. At best this is a hard situation, but sweet clover does fairly well, used in this manner. It should not be turned onto until the latter part of June, hence two months of good pasture are lost as compared with the system advocated in this series.

Plowing Up Sweet Clover

Sweet clover is a biennial; it does not die at the end of the first year, and it can not live longer than two years. Plowing it under the first fall will not kill it and this practice has led to all the trouble from sweet clover coming up in the following crop. If the ground is to be put into corn, the clover should not be plowed until after it has made some growth the following spring—the more the better. This will help kill it. If the sweet clover in the oats stubble is plowed up in September and the ground sown to winter wheat or rye, the clover will naturally make a great deal of trouble in that crop, as a number of farmers have found. But the sweet clover may be plowed under the second fall, as its life is ended.

Sweet Clover Pasture Fits into the Rotation

On a farm where all of the land is tillable, an excellent rotation is corn, corn, small grain (seeded with sweet clover), and sweet clover pasture. If it is desirous to raise less corn, a three-year-rotation of corn, small grain, and sweet clover pasture may work out better. Even on farms that have only a few dairy cows, a rotation of this kind is carried on in small fields near the house with marked success, and if hogs are raised, the corn may be hogged down in the fall.

Just Like Us

As a rule
Man's a fool;
When it's hot
He wants it cool;
When it's cool
He wants it hot,
Always wanting
What is not,
Never pleased
With what he's got.

—JOE WING.

Boarder cows are most profitable as dead cows.



Bargains in Blue Ribbon White Collies

Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home—joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.

SHOMONT KENNELS
Box 117 Monticello, Iowa

THE WORLD'S BEST

SWINE

HAMPSHIRES



Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.

WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

BROWN SWISS

ANNOUNCEMENT

KINNELON FARMS, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name, ownership and location.

The entire herd was moved during the month of August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.

The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.

Herd fully accredited, Certificate number 65301

LEES' HILL FARM, New Vernon, N. J.
P. O. Morristown
MR. AND MRS. WARREN KINNEY, Owners
HARRY KROEMMELHEIM, Herdsman

GUERNSEYS

GUERNSEY

Production is increasing
Values are increasing
Demand is increasing

Resulting in a good market for your surplus stock. Let "The Story of the Guernsey" give you the details. Ask for it,—we will do the rest.

THE AMERICAN GUERNSEY CATTLE CLUB
Box HD-120 Peterboro, N. H.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590. Send For New Price List

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

74-Guernsey Cattle at Auction-74

On September 26th, beginning at 10:30 A. M., W. E. WRIGHT, AKRON, OHIO, will disperse his entire Mountrose herd of Guernsey Cattle consisting of 42 COWS, 20 HEIFERS, and 12 BULLS.

19 cows have advanced registry records averaging 575 lbs. fat. 21 females are daughters of Cherub's Sergeant of Shorewood, the best proven son of the great show bull, Ladysmith's Cherub. The bulls include eight young sons of Sergeant and one son of Cherub's Prince. Herd under federal supervision.

AUCTIONEERS: FRED W. AND WALTER F. ANDREWS

The sale is under our management. Write us for advance circular and for catalog.

OHIO GUERNSEY BREEDERS ASSOCIATION WOOSTER, OHIO

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

HELENDALE GUERNSEYS

FOR SALE: Several good typy registered females at very moderate prices, also some young bulls.

WM. A. ERBACH, Athens, Wisconsin

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Is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
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For $250

Son of a 1024-lb. yearly record granddaughter of King of the Pontiacs. Grandson of Sir P. O. M. 41st. Born Nov. 8, 1923. Splendid individual, good size, mostly black.
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WAUKESHA, WIS.
October 6-7, 1924

Under auspices of the Wisconsin State Holstein Ass'n. Other states co-operating.
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West Salem is on the main line of the C. M. & St. P. and of the C. & N. W. Write us or better still come and select just what you want.
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To be held at the Farm, Sept. 6th, 1924

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65 REGISTERED Holsteins

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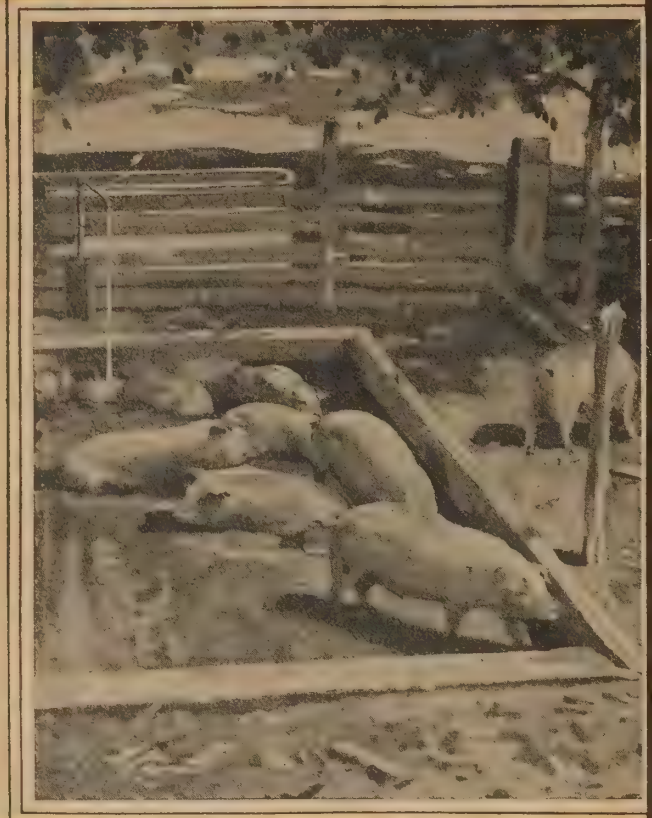

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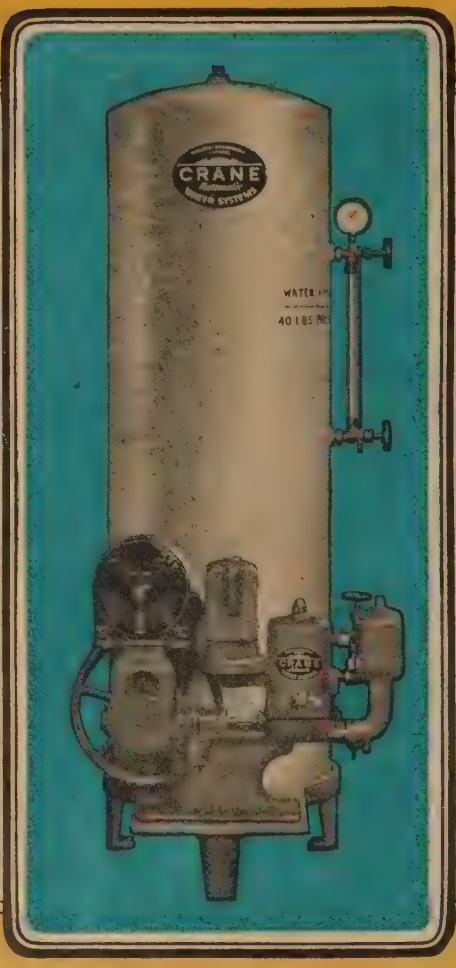
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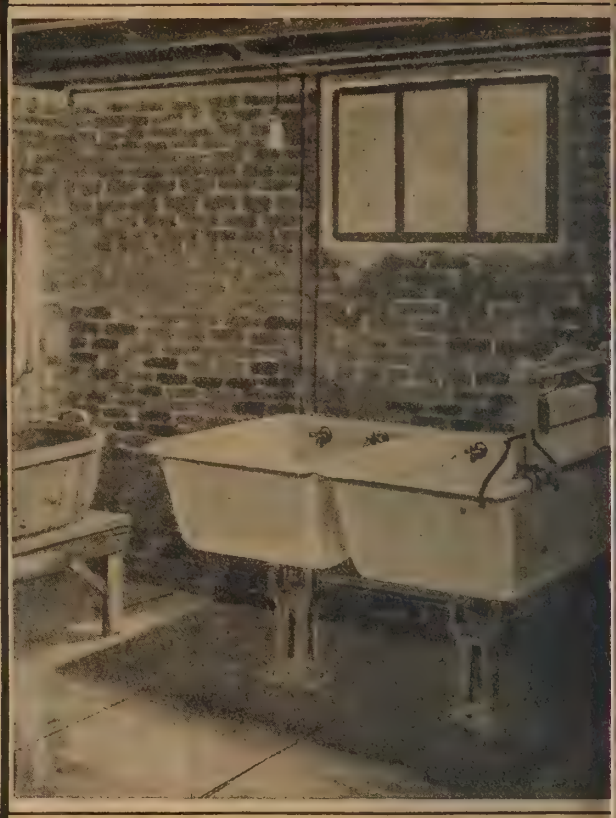
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HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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CONTENTMENT ON THE FARM

CHARLES B. WING, OHIO

LIFE is very largely what we make it. The old saying, "Opportunity knocks but once" is untrue in every detail. Man makes his own opportunites and as many and as great ones as he has capacity. After he has made them he either succeeds or fails in carrying them out according to his own ability. Life is not only what we make of it but unfortunately what we think of it. That is why, when our viewpoint becomes deranged, the world which God made in all its beauty, looks all wrong to us.

What does life give to man? Food and drink, warmth and rest: food for body, mind, and soul; warmth from the sun and from fuel that we burn; rest for body, mind, and nerves. It is because we who live in the country are especially favored along all these lines that we are and ought to be fairly contented and happy.

Let us analyze these statements more fully. I go to the cities at times and I know from observation that food means little to the city man. That is because he is so unfortunate as to be confined nearly all of his time within four walls, deprived of the oxygen that gives life to all things. He eats because he must, but the advantage is all with the country man, who really enjoys what he has.



"WHERE THE COW IS, THERE IS ARCADIA; SO FAR AS HER INFLUENCE PREVAILS, THERE IS CONTENTMENT, HUMILITY, AND SWEET, HOMELY LIFE."—BURROUGHS

Food for the mind then. The advantage of great libraries is with the city man, but I go into them and find them serving an extremely small clientele, maybe one man out of a hundred of those who are within easy reach. The things that they actually read carefully are the same daily papers and magazines that come largely to our own doors.

Food for soul? Here the city man is to be pitied and we have all the advantage. True he can drive down the boulevard with a hundred other cars all in line and in each other's way. He can go to the park, and the cities have some very wonderful ones, but the parks are not at all equal to our miles of country.

I look out upon the first of May. Shrubs and trees are putting on their summer clothes, their tender foliage ranging from gray green through fawn and soft brown into dull red, the earth below fast doning its vivid green, a patch of tulips adding just the touch needed to complete the work, and I say, "Surely here is food in greatest abundance, food for all of our souls." Again a few weeks later, where the orchards are in bloom, the very birds exulting over it all, the world is a fairyland. Again I look in July. The trees have all their foliage now and cool, inviting shade is under their great branches. The earth shimmers and radiates waves of energy. Butterflies calmly sail here and there, marvels of beauty and of grace. Wild flowers bloom everywhere, the touch of breeze is like a caress, and the bird songs complete a world that invites the study and infinite enjoyment from every one of our senses. Certainly here is food for both brain and soul. Autumn comes, roadside and fence rows are lined with asters, golden rod, and brown-eyed susans. The birds are contentedly journeying southward, their season's work, as ours, completed. They have raised a family and have cheered and encouraged every one that listened to their songs while they worked or played. The wood or forest tree or orchard is ripening, the buds for next season's growth forming, and when frost comes every tree and shrub blazes forth in its autumn colors. Not like anything sinister is this? Their leaves say "Goodbye, we have had a lovely time all summer. We have helped to feed and clothe our parents, we have sheltered the birds from storm and man from the heat of summer. Rain has fallen in its season partly by our influence. Now we are going and we bid you a most joyful farewell."

Winter comes with its new exhilaration, its fresh air from northern climes free of disease. It braces like iron and both body and mind are refreshened and renewed in strength and activity. This also is food for body, mind, and soul.

My friends, there is no comparison. All the advantage is with us who live in the country. Advantage not for making money, but for the development of all that is really best in life, strength, and health of body and mind, and the very training of the soul.

What else is in life?

We mentioned warmth. In winter the city man has no advantage, and in summer he wears a coat against which every fibre in his body must protest.

Rest? Here again there is no comparison. Cities are feverish where there is no night. Men are restless. It is in the country where man follows the cows, that rest for body, mind, and nerves really comes. Do not city men worn in nerve and mind, nearly always come to the country to rest? Maybe its fishing or camping, but it is always to the country, to nature, that these men come. Both instinct and the doctor's advice send them there.

"But," you say, "I haven't the money to make my place really attractive. I haven't time to mow the lawn, only a little of it that the children do. I would like to have a row of fine trees along the driveway and one clear along the pike. I'd like to have all new, straight wire fences, with paint for the barn every three years. I don't know much about flowers, but these rich city men would no doubt make this farm look fine by planting unusual trees, shrubs, or flowers in fence rows along the pike or around the buildings. I can't do these things for lack of money."

Here is where we do not agree. I know of a wealthy city man who planted a Crimson Rambler rose in each rod of his fence along the road. When I told my friend, Hottes, a landscape architect, about this he blew up and called it sacrilege. "If you want things beautiful make them as natural as possible. Don't introduce things that are out of place, such as shrubs and trees that belong in a different climate. One or two Crimson Ramblers for this man would have been all right, but one in each rod sets my teeth on edge. When you plant trees never set them in a straight line, follow nature's laws and make them look as if they just grew there. Nature plants nothing in straight lines, she uses curves and irregular formations always."

I have given this matter some thought and am sure that Hottes is right. I would sooner have all wild roses along the fence than a Crimson Rambler to each rod. I am partial to the trees and shrubs that grow naturally all around me, although I have no objection to introducing a few rare or beautiful things from a distance in order to diversify and richen

(Continued on page 284)

Co-operative Denmark

As Seen by Alfred Miller, a Former Wisconsin Cow Tester

TO give American readers an idea of the extent of the co-operative power in Denmark, it is necessary first to look over the geography and study the climatic conditions of the country. While it largely is a country of small farms of 10 to 15 acres, with fields like garden patches, all farms are not small. There are a large number of farms with 50 to 100 acres, and some with from 400 to 600 acres. The middle-size farms are considered the most profitable because of the low cost and better supervision of labor. Farm labor is cheap and a good man is only getting about $200 a year with board and room.

The map of Denmark shows one peninsula and 150 smaller or larger islands, many of which are too small to show on a smaller map. All this land together measures 15,000 square English miles. This does not include the Farol Islands, Iceland, or Greenland. These colonies of Denmark have an enormous big area, but surprisingly big areas of them are useless.

The surface of Denmark is gently rolling and on but one island does granite show, but limestone ledges are common in the eastern part of the country. It is a lowland and has a coast climate, the altitude varying from sea level to 560 feet, with half of the country having an altitude of less than 100 feet above sea level. The rainfall is about 8 inches on an average. The population is 2,757,000, with nearly one-half of this number as farm population.

The beginning of the Danish co-operation took place during the hard times following the war of 1864 with Germany and the loss of one of her best provinces. Agriculture at that time was confined largely to the single crop system and small grain was the main product. About this time the doors were thrown open to the granaries of Argentine, United States, Canada, India, and Australia. This flooded Europe with cheap grain, grown on cheap, fertile land. With no tariff on the imports, the farmers found it impossible to raise grain on their starved land for the price foreign grains were offered. The Danish agricultural economists pointed to the dairy cow as the savior and farmers began to keep more cows. They found it profitable to feed the cheap grains from foreign countries to cows and other stock. With more cows came the idea of co-operative creameries as up to that time butter had been made on the farms and sold in stores. The surplus was exported to Germany and England but this butter was of a very mixed quality.

The co-operation grew from its crude beginning to an enormous movement. Indeed, so large has it grown that some of the Danes fear it has grown too large. However, it is the strongest united power of the country. In order to get an idea of its extent I name below the thirty-seven different branches of agricultural co-operation, all of which work in harmony and under a union leadership:

Cement Factory, Stores, Creameries, Creameries' Federation, Milk Grading Association, Creameries' Trade Mark Association, Packing Plants, Packing Plants Federation, Egg Export Association, Butter Export Association, Danish Bacon Co., (London) Live Stock Breeders' Association, Horse Breeders' Association, Swine Breeders' Association, Sheep Breeders' Association, Goat Breeders' Association, Cow Testing Associations, Buying Associations, Sanitary Associations, Workers' Housing Associations, Selling Associations, Credit Associations, The Farmers' 2nd Mortgage Exchange Bank, Co-operative Bank, Savings Bank and Advance Association, Live Stock Insurance Associations, Hail Insurance Associations, Storm Insurance Associations, Fire Insurance Associations, Accident Insurance Association, Life Insurance Associations, Co-operatively Owned Farm Machinery, Electric Power Plants, Marl Associations, Bakeries, Fruit Growers' Associations, Co-operative Associations' Federation.

The efforts and success of these organizations vary a good deal, but facts are that they exist and many of them have cornered their respective business.

The Danish farm buildings as a whole are quite simple and old looking. Most of them have the well known rye straw roofing and many have the old binding timbers in the masonwork. Most of the machinery is crude and simple, except on the larger farms where they have modern harvesting and threshing machinery. On the small farms the threshing is still done by hand with a flail. On the medium sized farms it is done by a small horse power threshing machine that will take only a good handful at the time and shake the kernels from the straw, the grain being then put through a hand power fanning mill. The threshing is all done during the winter when the work is slack on the farm.

Largest attention is given root crops and an enormous acreage is seeded down each year. It takes considerable labor to raise and harvest such a crop, but as corn can not be grown, this is their only winter feed for the dairy herds.



TYPICAL FARM BUILDINGS ON A DANISH FARM OF ABOUT 50 ACRES



SEEDING IS CONSIDERED A PARTICULAR OPERATION AND TWO MEN ARE NEEDED TO RUN THIS SEEDER

Note the particular type of hitch without a pole and that the horses are equipped with breast collars.

Specialization—Does It Pay?

W. H. WILLIAMSON, MICHIGAN

A PRODUCER should have some idea as to what extent he expects to specialize in the different branches of farming. This opinion of what he intends to do should be formed from the results of his past experience or else from the findings of other people.

As dairying is one of the most important branches of mixed farming, let us consider to what extent it will pay to specialize in this industry. The conditions on different farms do not allow for any rigid rule to be followed, but every farmer is thrown on his own responsibility to decide what conditions are most favorable for him. It should, however, be interesting to consider the findings of surveys on this subject.

The Department of Economics of the Ontario Agricultural College, in making a survey in one of the dairy counties, endeavored to find to what extent it paid a farmer to count on the sale of his dairy products as a means of obtaining his farm income.

The results of this survey are as follows:

Percentage of Total Farm Receipts From Dairy Herd

% total farm r'cpts. from dairy herd	No. of farms	Labor income	Milk sold per cow	Labor hired per farm	Feed bought per farm
Below 51	43	$861	$79	$408	$217
51—60	55	1384	99	445	269
61—70	65	1485	108	465	274
71—80	79	1285	117	395	276
81—90	47	1335	124	442	233
91—100	38	986	134	409	304

The above table very clearly shows the comparative results of different degrees of specialization. The first group of forty-three farms received less than half of their gross income from the dairy herd. This income was received from the sale of milk and young stock. This group might be classed as mixed farmers rather than dairymen.

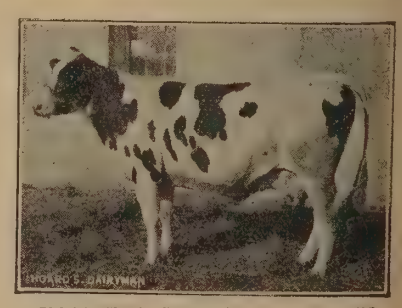
It will be noticed that the labor income increases until about seventy per cent of the revenue is obtained from dairy products. When more than seventy per cent of the income is from dairy products, the profits have a tendency to remain the same or become lower until after ninety per cent of the income is from the dairy when the profits take a decided drop. The group of strict specialists made almost as low an income as the group of mixed farmers.

There are some very successful dairymen who specialize to a much higher degree than seventy per cent and do it extremely successfully. These men are born dairy specialists. The twenty farms with the highest labor incomes were picked from the last two groups in the table. These farms had over eighty per cent specialization. A partial analysis of their business is as follows:

Number of farms, 20; average degree of specialization, 88 per cent; labor income, $2,596; milk sold per cow, $145; labor hired per farm, $606; feed bought per farm, $450; herd average milk, 6,100 pounds; number of cows per 100 acres, 18.

That the operators of these farms were successful is proven beyond all doubt. The labor incomes averaged $2,596. They secured from their cows an average milk yield of 6,100 pounds, which they sold for $145. They are heavily stocked, having 18 milch cows to the 100 acres, besides the young stock necessary to maintain their herds. But these men, though successful specialists, did not eliminate all side lines. They specialized up to 88 per cent of their total business, but 12 per cent of their revenue came from sources other than the dairy herd, cash crops, hogs, colts, poultry, etc. In dairying as in any other business, specialization offers opportunity for great success, but at the same time offers as great opportunity for unqualified failure. There were eighty-five farms in the two groups over 80 per cent specialization, having an average labor income of $1,186. Twenty of these farms averaged $25.96 of labor income. Consequently there must have been as many with low labor incomes to bring the average down to $1,186. The dairyman must decide for himself, therefore, whether his own natural ability will allow him to enter the realm of the specialist, with its opportunities and at the same time its hazards, or whether he is better off on the surer footing of average ground, where his chances of great success are fewer but where he is sure of being at least fairly comfortable.

The tables show two things conclusively. First, that the average man must receive at least half of his gross income from the dairy herd. Second, he must not go to the other extreme and neglect all side lines. The group of strict specialists made almost as low an average labor income as did the group of mixed farmers. And in consideration of the fact that the 61-70 per cent specialization group made $150 more labor income than any other group of higher specialization, it may be said that this is the safest and best organization for the average man.



HOLSTEIN COW, JANE GERBEN LYONS

Nebraska's new champion cow over all breeds for one year's production of both milk and butter as a junior three-year-old is Jane Gerben Lyons, owned by the Nebraska School of Agriculture. In 365 consecutive days she produced 21,522.7 pounds milk and 717.41 pounds butterfat, equal to 896.7 pounds butter, according to the Advanced Registry Department of The Holstein-Friesian Association of America.—Extension Service Holstein-Friesian Ass'n. of America.

EVER FAILING OR NEVER FAILING PASTURE

Part 12.

Supplementing Bluegrass Pasture With Sweet Clover

WILBER J. FRASER, University of Illinois

At least three-fourths of the bluegrass pasture on our millions and millions of acres of untillable land could be reinforced with sweet clover by discing the seed into it, and thus double the production of feed from this same land.

As shown by the four years' pasture demonstration at the University of Illinois and in common farm experience, bluegrass pasture lies largely dormant during midsummer. In the face of such a disadvantage, this series does not recommend bluegrass at all except on land that can not be tilled. It must be remembered, however, that this is a tremendous area, as one-sixth of the farm land in the nine chief dairy states is untillable. This amounts to over one and one-half times all the farm land in New York or Wisconsin. So with the bluegrass one must of necessity have, the gigantic problem is to supplement it. It is far better to grow a small area of sweet clover for this purpose than it is to go to all the laborious work of raising and feeding corn silage, hay, and grain.

Half Acre of Sweet Clover Per Cow

Usually one-half acre of sweet clover pasture per cow will be sufficient to supplement the bluegrass. This will permit the cows to be turned out two or three weeks earlier in spring than they should be on bluegrass. At this rate of pasturing, the sweet clover will be eaten down short by about May 15 for Northern Illinois, and the cattle should then be put onto the bluegrass for three or four weeks. This change will give the clover time to make a good growth so that it will stand heavy pasturing again when the bluegrass commences to fail. It will then carry the cows over midsummer until the new seeding of sweet clover in the stubble is ready for them. Throughout the season the stock can be moved from one pasture to the other, according to the relative growth of each.

Mr. Pittinger of Southern Illinois was entirely out of feed April 15 and turned 15 cows onto six acres of sweet clover, then about six inches



Sweet clover a foot high in W. D. Howland's permanent bluegrass pasture, July 25, 1924. The seed was disced into the bluegrass early in the spring the year before.

high. In three weeks they had it eaten close to the ground. He then changed them to bluegrass pasture. When the field was inspected by the writer, May 29, the sweet clover had grown up nearly two feet high and was ready for midsummer pasturing during the time of the failure of the bluegrass.

Sweet Clover in the Bluegrass

Another and far better way to use sweet clover in supplementing bluegrass on untillable land is to seed it right into the bluegrass. It has been found that the production of the pasture can be greatly increased by this method.

Maes Brothers of Southern Illinois have had seven years of marked success in seeding and maintaining sweet clover in permanent bluegrass pasture. They had 28 acres of rough pasture that could not be killed. To increase the yield of this pasture, they seeded a part of it to sweet clover, 12 lbs. to the acre early in the spring. They first applied four tons of limestone per acre and disced the ground four times, after which the seed was harrowed in.

This clover was allowed to get a good start before the stock was turned on the first spring. It has reseeded itself every year since, while being pastured, and the area which was seeded seven years ago is still covered with about one-half a stand of sweet clover. The stock had been



SEEDED THREE YEARS AGO



SEEDED SEVEN YEARS AGO

Maes Brothers' permanent bluegrass pasture which had been limed, disced, and seeded to sweet clover. Note the excellent growth and rough, hilly land.

on it for five days, when I visited the farm May 27, and the clover stood two feet high. Maes Brothers sow sweet clover in all of their small grain and so by pasturing this in early spring and late fall are able to permit their bluegrass pasture to get a good start before being turned onto in the spring and before going into the winter.

Another part of the pasture was seeded to sweet clover three years ago, following the same method; however, the seeding was done this time late in August. This clover also reseeded itself and showed an almost perfect stand.

Supports Twice the Stock

Formerly the 20 acres of bluegrass furnished feed for 10 cows for five to six weeks in the spring. In striking contrast to this, with less than half the 20 acres growing sweet clover in the bluegrass, this same land now supports 20 cows or cow equivalents for two and a half months during the dry weather of midsummer, or until the new sweet clover in the grain stubble is ready to turn onto. Since sweet clover has been put into this bluegrass, the same land carries twice the amount of stock and furnishes feed through the critical period when bluegrass fails.

Mr. Maes says that sweet clover can be seeded in any bluegrass pasture very successfully either spring or summer, if the soil can be scratched at all, providing sufficient lime is added on acid soil and the seed is inoculated and thoroughly worked into the soil.

Good Stand on Rocky Hillsides

Ben Jokerst, in the northwestern part of the state, has untillable, rocky hill pasture, consisting of 70 acres, that he sowed to biennial white sweet clover in February, 1922, with a hand seeder. He did not turn the stock on until August 1, or until the sweet clover was about two feet high. He pastured 45 head on this during August, September, and October. Next year he expects to turn on early in the spring and pasture it all summer.

Mr. Jokerst says, "On some of the rough, rocky hillside that would not grow enough grass on four acres to pasture a cow, as good sweet clover as I ever saw grows. I think next year sweet clover will double the pasture on my place over what bluegrass produced alone on this untillable land."

"I have one pasture on which I let the sweet clover go to seed last summer. The young clover now, (June 22) is about 10 inches high, and as thick as it can stand. I find lots of seed that did not germinate; the stock have tramped it down and it will come up next year. I also find a number of stalks that will make seed this year."

Learning What Can and Cannot Be Done

Mr. W. D. Howland in Northern Illinois has a large permanent bluegrass pasture through which a creek winds. In early March, 1921, he seeded sweet clover into this pasture with a grain drill and got a fair stand. In 1922 the sweet clover made a big growth so that many of the stalks were still standing from one to two feet high, when I visited the pasture that November. In the spring of 1923, he tried putting more sweet clover seed into this pasture with a drill, the same as before, but the bluegrass had not been pastured close the fall before, and there was so much old grass it prevented the drill from cutting through the tough sod, so not much of the clover seed was put into the soil, and he got a very *poor* stand.

He had another bluegrass pasture across the road on a 160-acre farm he recently purchased. This pasture was eaten tight to the ground the fall before, and for this reason there was not as tough a mat of roots and he could disc the sweet clover into the soil here. He did so and got a *good* stand.

A Doubled Yield of Pasture

Mr. H. Ridgway of Northern Illinois had disced six acres of permanent bluegrass pasture on creek bottom twice, and on March 1, 1921, drilled in a mixture of sweet and other clover seed. He got a good stand and it has reseeded itself since, so that he still has a good clover pasture three years after seeding.

He has pastured four cows and four horses on this six acres and says that discing this mixture into the bluegrass has doubled the yield of feed. He also says, "The practice of putting sweet clover into bluegrass pasture can't be beat."

Messrs. Kolmer, Easterly, and Hartman of Southern Illinois have also had the experience of putting sweet clover into bluegrass pasture and having it reseed itself.

Seed Must be Worked Into the Soil

These experiences indicate that sweet clover can be successfully grown in bluegrass pasture if the lime and inoculation requirements are met the same as for growing sweet clover anywhere else. From the successes and failures cited, it also seems essential that the seed be *well worked into the soil.* In many or most cases this will require thorough discing to cut the tough sod.

Best to Use Unscarified Seed Here

In order to have a continuous supply of sweet clover pasture, we must have a stand of both first and second year plants every year. Since sweet clover is a biennial, it does not produce seed the first year and if scarified seed, which will practically all germinate the first year it is used, it will be necessary to work the ground up the second year and sow more seed in order to secure a stand of young plants again that year. For this reason when seeding sweet clover into bluegrass, it is best to sow a double amount of unscarified seed, part of which will not germinate until the second year, thus eliminating the necessity of the extra working of seed into the bluegrass sod the second year.

The Most Economical Method

Of all recommendations to furnish supplementary feed for permanent bluegrass pasture, *growing sweet clover in the bluegrass is by all means the most economical and efficient because it takes no extra fencing and no extra land or labor to grow sup-*

(Continued on page 251)



A mixture of sweet and other clovers in Mr. H. Ridgway's permanent bluegrass pasture, which has continued to reseed itself. Picture taken three years after seeding.

THE BUCKEYE STATE FAIR

HOWARD C. BARKER, OHIO

THE Ohio State Fair slogan, "The Sun Always Shines in Ohio," describes perfectly Ohio State Fair week just past. The week was hot but aside from a slight sprinkle of rain on Tuesday night it was an ideal fair week. Attendance was not as large as that of 1922, by a few thousands, but it reached the 360,000 mark.

Every bit of available space was taken with machinery and agricultural exhibits of every kind. The live stock barns were chock-full of not only the best from Ohio but from other states as well.

The new cattle barn was appreciated much by the exhibitors of cattle and admired by every one who passed its doors. It is the last word in arrangement, ventilation, and light for state fair barns and has a capacity of 1,788 head of cattle on the first floor and 300 head in the basement where an army of nurse cows was kept. The hog exhibitors were able this year to show their swine in the remodeled cattle barn which now accommodates amply the hog show, giving them two excellent arenas for the showing of the porkers.

The dairy cattle exhibit again surpassed that of the beef cattle in numbers and taken as a whole the quality was a bit better than at any former show.

The Brown Swiss had about the usual numbers seen at an Ohio State fair and the quality straight through was very commendable. The 3-year-old bull, Prince of Meadow Green 9427, owned by L. S. Marshall and Sons, of Michigan, was an easy senior champion and later was made grand champion over the excellent senior yearling, Lottie's Prince of Lakeview, owned by Hull Bros., Ohio.

In the female classes one could not help but notice the dairy type that the breeders of Swiss Cattle are obtaining and the show was strong and a bit close in places. Swiss Valley Girl 7th, the winner of many grand champion honors, won the aged cow class and rode along easily to the grand champion female honors over Irene of Lakeview, the senior yearling heifer from the same herd of Hull Bros., Ohio. R. E. Haeger tied the ribbons in his usual satisfactory manner.

In the Jersey class Hugh Van Pelt, of Iowa, ranked the animals very satisfactorily to the Jersey cow fans which included many out-of-state enthusiasts. The Jersey show as a whole was up to its usual high standard at the Ohio State Fair, there being over 200 shown. For the Ohio breeders competition furnished by out of state breeders was a bit too stiff as all the blues except one went to herds without the Ohio borders. The aged cow class was the outstanding class of the show and brought out 25 tip-top Jersey matrons. The grand old cow, Fern's Oxford Diana, finally defeated



FLASHLIGHT OF CEDAR HILL, SENIOR CHAMPION GUERNSEY BULL AT OHIO STATE FAIR
OWNED BY CIRCLE W. FARM, OHIO

her stable mate Fern's Ashley Belle for first place in this class and was later made grand champion female of the show over Fern's Oxford Silver Thread, her half sister and also owned by P. H. B. Frelinghuysen, New Jersey.

The Guernsey show was lacking a bit in numbers as compared with last year but all it lacked in quantity was made up in quality, for some very excellent fawn and white specimens were lead before Judge John Cochran of Pennsylvania for his inspection.

In the bull classes Circle W. Farms of Ohio won both the champions on sons of Brookmeads Searchlight. The excellent two-year-old, Flashlight of Cedar Hill, walked to the front easily for senior champion but was just as easily defeated by his half brother, White's Searchlight's Raymond, for grand champion. Judge Cochran, in the female classes, found his senior champion in the 3-year-old heifer, Imperial Florence of Bas Sejour. She might have shown a bit more depth of middle but aside from this was a real Guernsey cow and experienced little difficulty defeating the junior champion, King Masher's Laddie's Ann, for the grand championship.

The feature of the Guernsey show was the offspring of Brookmead's Searchlight 62912, senior herd sire at Circle W Farm.

Ten of his sons and daughters won eight blues, two championships, and one grand champion. In the groups his get won first prize exhibitors' herd, first prize young herd, first prize calf herd, and first prize get of sire.

Gayoso Farm of Mississippi won first four places in the produce of cow class.

The Holstein-Friesian show, although lacking just a few in numbers over last year, was by far the best ever seen in an Ohio Holstein arena. Hargrove and Arnold came from Iowa for premier exhibitor honors, but aside from their winnings the ribbons were very well divided among the 59 other exhibitors, 54 of which were Ohio breeders. Holsteins again excelled in numbers over all breeds of cattle with 376 head; the Shorthorns, however, being a close second. Every class was well filled but the senior heifer class brought out 50 head and it kept "Bob" Haeger busy to finish the job in the two days alloted to him.

King Pietertje Jewell Korndyke repeated his last year's record handily by winning senior and grand champion in the bull classes. "Jewell" is carrying a lot more flesh this year than last and was an easy winner over Triune Ormbsby Piebe 27th, last year's All American senior calf for the highest honors of the show.

The female classes were large and all of them furnished a most excellent bunch of prize winners. In the aged cow class Ivaloy Prilly Rose Hall, the Ohio State Fair grand champion for the past two years, won in a class of over 40 wonderful dairy cows, but the trim, stylish Dorothy Ormsby Piebe, owned by Hargrove & Arnold and the winner of many championships, was too much for her and "Dorothy" was again senior champion. A few minutes later she met one of the best junior champions ever witnessed on an Ohio tanbark, namely, Wooglin Colantha Fayne, and was made the grand champion female of Ohio's best Holstein show.

One of the best features of the Ohio show each year is the county herd class which has been the one big thing to encourage Ohio breeders to show their cattle.

Seven county herds were shown and ranked as follows: Grange, Lucas, Fulton, Columbiania, Medina, Willington Dist., and Lucas.

The county herd show for the past four years at the Ohio Fair has created much interest and enthusiasm among the small breeders and has been the means of getting out a big show. The State Fair Board and the Ohio Holstein-Friesian Association offers $750 in prize money for this class.

Increasing enthusiasm was evidenced this year for the Ayrshire cow. While the show was not larger than usual, it was well balanced throughout and the prize money was very evenly divided among the exhibitors. Taking the show throughout, there were very few outstanding individuals and, on the other hand, very few poor ones were in evidence. In the female classes the two-year-old and both the yearling classes were of very high merit.

Hillhouse Golden Lad, the deep, white, massive aged bull owned by Shuttleworth Bros. of Michigan, was an easy winner in his class as well as for champion and grand champion honors later on in the show. Alta Crest Farms, Massachusetts, had the junior champion bull, their junior yearling calf, Alta Crest Happy-Go-Lucky.



PRINCE OF MEADOW GREEN, GRAND CHAMPION BROWN SWISS BULL AT OHIO STATE FAIR
OWNED BY L. S. MARSHALL & SON, MICHIGAN

The female senior champion went to the excellent two-year-old heifer, Alta Crest Powder Puff, who had but little difficulty later on winning the grand champion over Alta Crest Bright Lass, the senior yearling that had been made junior champion. "Jimmie" Dodge, Massachusetts, tied the ribbons satisfactorily to all.

The glory of the farmer is that in the division of labor, it is his part to create. He stands close to nature; he obtains from the earth the bread and the meat. The food which was not, he causes to be.—RALPH WALDO EMERSON.



KING PIETERTJE JEWELL KORNDYKE, GRAND CHAMPION HOLSTEIN BULL AT OHIO STATE FAIR
OWNED BY PINERY FARM, OHIO



FERN'S WEXFORD NOBLE, GRAND CHAMPION JERSEY BULL AT OHIO STATE FAIR
OWNED BY TWIN OAKS FARM, NEW JERSEY



FERN'S OXFORD DIANA, GRAND CHAMPION JERSEY COW AT OHIO STATE FAIR
OWNED BY TWIN OAKS FARM, NEW JERSEY

THE MINNESOTA STATE FAIR



NORTH STAR JOE HOMESTEAD, SENIOR AND GRAND CHAMPION HOLSTEIN BULL
OWNED BY BALTZ HOESLEY, WISCONSIN



PRILLY TIRANIA, SENIOR AND GRAND CHAMPION HOLSTEIN COW
OWNED BY GLANTZ BROS., MINNESOTA



LUCINDY OF S. C. 2D, SENIOR AND GRAND CHAMPION AYRSHIRE COW
OWNED BY H. M. WALLIS, WISCONSIN

THE Minnesota State Fair this year was fully up to the Minnesota standard, that means a state fair second to none, a fair where one needs more than a single day to properly see it. Like a good many of the other fairs this fall, the attendance was less than usual. Neither the city nor the farmer gave it the support they usually do.

The cow testing association exhibit was one of the educational features which could profitably have been studied by more dairymen. It featured the importance of intelligent feeding for most profitable production and included several cows whose first C. T. A. records were made on dairy farms in different sections of the state. The cows were again tested by the association at the University farms with production increases of well over 2,500 lbs. of milk making an increased net profit of as much as $60 in one case.

The dairy cattle show was very good, being particularly interesting to those who favored Guernseys, Holsteins, or Jerseys. Altogether 821 head were shown, with 153 of these calf club entries which in themselves make most interesting competition.

This fair still has one or two rather antiquated rules among those governing its cattle classes which could, it would seem, well be changed. If a sire is owned by two or more breeders he cannot for some unknown reason be shown in the herd classes. Because his ownership is plural doesn't make him any less a herd sire and ought not to prohibit his being shown as such. Then, too, there is a ruling prohibiting exhibitors from showing more than one entry in a group. Surely if a breeder is using two or three sires and their get prove excellent, there is no logical reason why each may not compete.

Holstein breeders brought out 170 entries this year with Jefferson County, Wisconsin, the only out of state exhibitor. Practically every class was a close one and no one breeder was able to get very many of the firsts. The Minnesota Holstein Co. led in this respect with five blues; Mudcura Farms was second with four.

Judge Weaver had no easy time of it with his Guernseys; almost every class was large and all of them were keenly contested. D. D. Tenney, Minnesota got two championships and one grand championship, the other two purples going to Mountain Bros. and W. W. Marsh of Iowa. The latter's senior champion cow was also grand-champion.

This year brought out the best Jersey show we've seen at Minnesota in some time. There were 156 entries, besides club calves, from herds in Iowa, Wisconsin, and Minnesota. The Meredith Jersey Farm of Iowa with nine firsts was the heaviest winner.

The Brown Swiss show was just about equal to that of 1923. There were 86 head there with entries from Wisconsin, Illinois, and Iowa as well as Minnesota. The Ayrshires made the smallest showing of any breed with 53 head, 37 less than a year ago. Wallis Farms and B. B. Simmons and Sons of Wisconsin and F. H. Baskins of Iowa were the only exhibitors with the exception of one calf club entry from Steele Co., Minn.

A complete list of first prize winners for each breed follows:

Brown Swiss

Judge: Earl Weaver, Iowa.

Bull 4 years old or over—Mooney and Larrabbe, Iowa, on Earl the 6th. Bull 3 years under 4—Fred Reuter, Wisconsin, on Black Stone. Bull 2 years under 3—Fred Reuter on Happy Boy of Gladmont. Senior yearling bull—A. E. Bower and Son, Illinois, on Bonick of Bowerhome. Junior yearling bull—Fred Reuter on Ada's Carl 1st. Bull, senior calf—N. C. Schmid, Wisconsin, on Nelliemilitor.

Senior and grand champion bull—Mooney and Larrabbe on Carl the 6th. Junior champion bull—Fred Reuter on Ada's Carl 1st.

Cow 4 years or over—A. E. Bower and Son on Betty of Lake View. Cow 3 years under 4—A. E. Bower and Son on Nickduchess of Bower Farms. Cow 2 years under 3—N. C. Schmid on Brown Ethel Monroe. Senior yearling heifer—N. C. Schmid on Marvel M 2nd Hazel. Junior yearling heifer—N. C. Schmid on Mernervie of Meadow Green. Senior heifer calf—Lila Schmid on Browny A's Last.

Senior and grand champion cow—A. E. Bower and Son on Betty of Lake View. Junior champion heifer—N. C. Schmid on Mernervie of Meadow Green.

Graded herd—Mooney and Larrabbe. Yearling herd, pair calves, N. C. Schmid; get of bull—N. C. Schmid on Vronicka's College Boy. Produce of cow—N. C. Schmid. Dairy herd—A. E. Bower and Son.

Ayrshire

Judge: R. S. Hulce, Wisconsin.

Bull 4 years or over—Ayrcroft Farm, Wisconsin, on Cavalier The Last. Bull 3 years, under 4—H. M. Wallis, Wisconsin on Cavalier's Bobby Vernon. Bull 2 years under 3—H. M. Wallis on Edgerstoune Premium Bond Imp. Senior yearling bull—F. H. Baskins, Iowa, on Cavalier's Morning Star. Junior yearling bull—Ayrcroft Farm on Ayrcroft Cavalier Lord. Bull, senior calf—Ayrcroft Farm on Ayrcroft Cavalier Red Boy.



CAVALIER'S BOBBY VERNON, FIRST PRIZE THREE-YEAR-OLD, SENIOR AND GRAND CHAMPION AYRSHIRE BULL
OWNED BY H. M. WALLIS, WISCONSIN

Senior and grand champion bull—H. M. Wallis on Cavalier's Bobby Vernon. Junior champion bull—Ayrcroft Farm on Ayrcroft Cavalier Lord.

Cow 4 years or over—H. M. Wallis on Lucindy of S. C. 2nd. Cow 3 years under 4—Ayrcroft Farm on Ayrcroft Ethel. Cow 2 years under 3—H. M. Wallis on Cavalier's Daisy. Senior yearling heifer—Ayrcroft Farm on Ayrcroft Snow Lillie. Junior yearling heifer—H. M. Wallis on Gladys of Wallis Farm. Senior heifer calf—H. M. Wallis on Edgerstoune Piry.

Senior and grand champion cow—H. M. Wallis on Lucindy of S. C. 2nd. Junior champion heifer—Ayrcroft Farm on Ayrcroft Snow Lillie.

Graded herd—H. M. Wallis. Yearling herd and pair calves—Ayrcroft Farm. Get of bull—Ayrcroft Farm on Cavalier The Last. Produce of cow and dairy herd—H. M. Wallis.

Guernsey

Judge: Earl Weaver, Iowa.

Bull 4 years or over—Albert L. Hyzer, Wisconsin, on Lassie Boy of Prairie. Bull 3 years under 4—D. D. Tenny, Minnesota, on Cherub's Royal Leader of Shorewood. Bull 2 years under 3—Mountain Bros., Iowa, on Kitchener's Cavalier of Iowanola. Senior yearling bull—W. E. Harrington, Minnesota, on Mosrose Cherub. Junior yearling bull—Mountain Bros. on Dorothy Marie's Challenger of Iowanola. Bull, senior calf—W. E. Harrington on Cherub's Lad of Grace.

Senior and grand champion bull—D. D. Tenny on Cherub's Royal Leader of Shorewood. Junior champion bull—Mountain Bros. on Dorothy Marie's Challenger of Iowanola.

Cow 4 years or over—W. W. Marsh, Iowa, on Honey Bloom of the Prairie. Cow 3 years, under 4—Albert L. Hyzer, Wisconsin, on Guernseydale Barbi. Cow 2 years, under 3—D. D. Tenny on Cherub's Lassie of Shorewood. Senior yearling heifer—W. W. Marsh on Lilac of the Prairie. Junior yearling heifer—D. D. Tenny on Honor's Canterbury Cherub. Senior heifer calf—Marple C. Mountain, Iowa, on Cherub's Beautona of Iowanola.

Senior and grand champion cow—W. W. Marsh on Honey Bloom of the Prairie. Junior champion heifer—D. D. Tenny on Honor's Canterbury Cherub.

Graded herd—D. D. Tenny. Yearling herd—Mountain Bros. Pair calves—W. E. Harrington. Get of bull—D. D. Tenny on Ladysmith's Cherub. Produce of cow—W. W. Marsh. Dairy herd—Simon Kruse, Minnesota. Minnesota County Group—Hennepin County. State Herd—Minnesota.

Jersey

Judge: R. S. Hulce, Wisconsin.

Bull 4 years or over—D. A. Buss, Minnesota, on Golden Isabella's Noble. Bull 3 years under 4—Waterloo Jersey Farm, Iowa, on Financial Master. Bull 2 years under 3—Meredith Jersey Farm, Iowa, on Successful

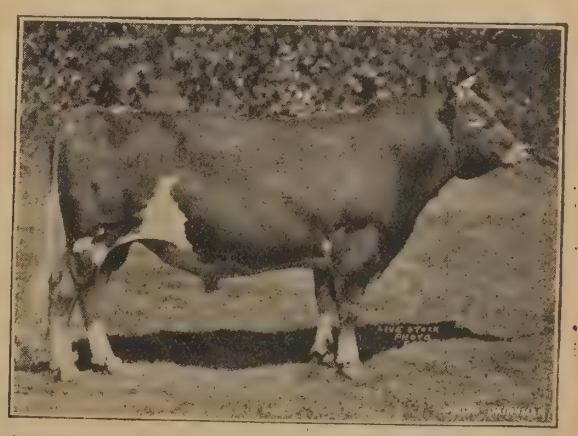
(Continued on page 245)



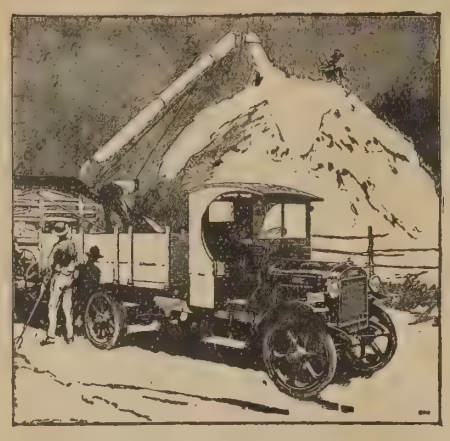
GOLDEN ISABELLA'S NOBLE, SENIOR AND GRAND CHAMPION JERSEY BULL
OWNED BY D. A. BUSS, MINNESOTA



SUCCESSFUL GOLDEN COWSLIP, FIRST PRIZE TWO-YEAR-OLD, SENIOR AND GRAND CHAMPION JERSEY FEMALE
OWNED BY MEREDITH JERSEY FARM, IOWA



CHERUB'S ROYAL LEADER OF SHOREWOOD, FIRST PRIZE THREE-YEAR-OLD, SENIOR AND GRAND CHAMPION GUERNSEY BULL
OWNED BY D. D. TENNEY, MINNESOTA



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The Certified Cap works satisfactorily both in automatic and manually operated capping machines.

The Cap With the Red Flap

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THE FUTURE HERD SIRE

C. H. CRAWFORD, INDIANA

SOONER or later every breeder of pure-bred cattle is confronted with the problem of purchasing or selecting a sire to head his herd.

It has been truthfully said that the herd sire is half the herd. This, perhaps, does not seem true, but when we stop to consider that the herd bull has direct influence on the coming generations; that through his influence the improvement of the herd is either retarded or promoted, then we begin to realize the importance of careful and wise selection of the herd sire.

During the earlier days breeders selected their bulls largely on their individual merit, or, perhaps, more often on the price asked for the animal. But today, bulls are selected not only on their individual merit but also on the ability of their ancestors, as indicated by their official records of production.

The pedigree of the herd bull then, is important and is termed excellent, good, or poor according to the records of production of the animals.

The pedigree of a bull which shows his female ancestry all to have good records of production, and his male ancestors to have been sires of high producing daughters, would be classified as *excellent*. The opposite conditions would be true of a very poor pedigree, with *good* and *poor* indicating the pedigrees intermediate between the two extremes.

In order to improve his herd, a breeder selects a bull which he thinks will transmit his good qualities to his offspring and thereby increase the production of the herd. In order to do this it is believed that, through the influence of heredity, the majority of a bull's ancestors must have high records of production.

With this thought in mind the author has made a rather intensive study of the pedigrees and production records of the daughters of the ten bulls of the Holstein-Friesian breed having the largest number of daughters in the Advanced Registry. Conclusions drawn from the correlation of the pedigree of these bulls to their performance should aid in the selection of your next herd sire.

Since these ten bulls have more A. R. O. daughters than any other bulls of the breed, their records of performance can, without question, be taken as a standard which can be used for further comparison.

The average of all records of the 1511 daughters of these ten bulls shows their average production of butter in seven days to be 21.31 pounds in thirty days it was 99.81, and in one year it was 777.45 pounds.

When these ten bulls are compared to ten other bulls which were selected entirely on the merits of their pedigree and all of which have excellent or good pedigrees, the later group was found to have a slight increase in the amount of butter produced by their daughters in seven days, a very slight decrease in the amount produced in thirty days, and a decided increase in the average yearly production of their daughters. In seven-day records they ranked 103.23 per cent, in thirty-day records 99.86 per cent, which is practically the same, and in yearly records they ranked 110.06 per cent, with an average rank of 104.79 per cent.

It is of interest to note that when further comparison was made between bulls having good pedigrees and bulls having excellent pedigrees, that the bulls having excellent pedigrees were able to transmit higher production to their daughters, their daughters showing an actual increase of 5.10 per cent for their seven-day records, an increase of 10.62 per cent for their yearly records, and an average increase for all records of 4.79 per cent over the production made by the daughters of the bulls which had good pedigrees.

Again, in like manner, when the production records of daughters of bulls having only poor pedigrees were compared to the records made by the daughters of the ten bulls having the greatest number of A. R. O. daughters, these bulls had an average rank of 86.49 per cent for seven-day records, 98.3 per cent for thirty-day records, and 94 per cent for their yearly records, with an average total rank of only 88.47 per cent.

When still further comparison was made of the production of the daughters of bulls having poor pedigrees, to the production of the daughters of bulls having good pedigrees, the bull with poor pedigrees had a rank of 83.78 per cent for seven-day records 98.61 per cent for thirty-day records and 82.61 per cent for yearly records with an average rank of only 84.4 per cent.

These comparisons have shown:

1. That records made by cows sired by bulls having good pedigrees, were nearly five per cent higher than similar records made by daughters of bulls which have unquestionable records of performance.

2. That production of females whose sires had pedigrees classed as excel



A MILKING CONTEST AT THE MICHIGAN MILK PRODUCERS' PICNIC BETWEEN N. P. HULL, (RIGHT) PRESIDENT MICHIGAN MILK PRODUCERS' ASSOCIATION, AND M. L. NOON, PRESIDENT OF MICHIGAN FARM BUREAU

The contest was decided on the points of sanitation, celerity, gentleness, quality of voice, and milking ability. To determine these qualifications in the contestants a foot race was held, a whistling match, method of approaching the cow, a manicurist inspected their hands, and each was required to milk a dry and a fresh cow.

Both were confident of winning; both were disappointed when judges decided the contest a tie.

lent was greater than the production of the daughters of bulls having pedigrees classed as good.

3. That the production of the daughters of bulls having poor pedigrees was more than sixteen per cent less than the production of daughters of bulls which had good pedigrees.

These data show conclusively that in order to sire high producing daughters a bull must, himself, have high producing ancestors. High production does not come by chance, but it is an inherited character, transmitted from one generation to another. Good cows possessing this character cannot reach their maximum production without good feed and proper care. On the other hand, good feed and the best of care cannot make large records unless the cow possesses the inherent character for high production.

Relation Between Human and Bovine T. B.

HOARD'S DAIRYMAN:—I was much interested in the Illinois Dairyman's twelve reasons for not testing his herd for tuberculosis as given in your paper. Among other things he states that no one is very sure of the relation between human and bovine tuberculosis, nor very sure of the efficiency of the tuberculin test, etc. Right along this line we would like to say a word.

Your Illinois correspondent does not state who it is that doubts the relationship between human and bovine tuberculosis. There is no better authority on this subject in the United States than Dr. M. P. Ravenal, professor of preventative medicine and bacteriology and director of the public health laboratory at the University of Missouri who has made this subject a study for about 26 years and whose remarks along that line should be of some real value.

This is what Dr. Ravenal says on the subject: "I do not understand why it is that this question which was apparently settled some 20 years ago, has broken out freshly again. During the last six months I have had so many inquiries concerning the matter that I feel that there must be some sinister force at work. There is no question whatsoever that cattle tuberculosis is transmissible to man. This has been definitely settled by the work of the Live Stock Sanitary Board of Pennsylvania in 1901 and 1902. Later than this, the English Royal Commission and the German Imperial Commission made their reports concerning the work done in this country on bovine tuberculosis. I have been working on this subject since 1898 and have collected a vast amount of material not only in this country but also in Europe. At the present time I do not know anyone whose opinion is worth having who does not acknowledge the danger of cattle tuberculosis to human beings. The danger is chiefly to children but sometimes adults are affected also. All of the material which has been brought forward from year to year simply strengthens the positive stand taken."

This does not look as if there was much dispute about the matter.

Most everyone is familiar with the work of the Mayo Bros. Hospital at Rochester, Minnesota. Patients come to this hospital from all over the world. Here is what the Mayos say about the relation of bovine and human tuberculosis: "Bovine tuberculosis is very common in children from the rural districts. It comes in the form of tuberculosis of the tonsils, glands of the mesentery of the intestines, or ulceration of the intestines, frequently locating in the peritoneum or in the appendix."

Dr. A. Stanley Griffith, an investigator with the British Royal Commission of Tuberculosis, stated in 1922 at the National Milk Conference that in the study of 1,200 cases of tuberculosis in children under five years of age, more than 80 per cent of the cases in the lymph nodes and abdomen were of the bovine type. He also said that the bovine type was capable of giving rise to the disease in every organ, every joint, and every gland in the human body.

Statements are made from time to time that the tuberculin test is not effective. Right along this line, Dr. Herman Busman in charge of meat inspection at the South Omaha packing plants, has something of interest to say. Checking up the carcasses of animals which have reacted to the tuberculin test and are slaughtered and given post-mortem examinations, shows that practically 100 per cent of these cattle have the disease in some form or another. So it will be seen that there is little or no guesswork about the matter.

Here in Nebraska a dairyman, who had his herd tested, was keeping those animals which reacted in quarantine. Contrary to regulations, he allowed calves to go in and suck these cows. Nearly all these calves contracted the disease. Then he realized that the tuberculin test must have told the truth.

Nebraska. H. HOWARD BIGGER.

Bovine Psychology

HOARD'S DAIRYMAN:—The milking cow generally has a nervous temperament—very often this is magnified in proportion as she is closely bred and high producing. "Melba XV", the world's champion butterfat cow, is, for her kind, of a placid, docile disposition. This was in her favor during the recent prolonged test when she produced 32,522½ lbs. milk and 1,614 lbs. fat in 365 days. Great care was exercised that she should be milked regularly at eight-hour intervals, fed regularly, and treated kindly and gently. Her care, with that of several of her herd mates, was the duty of one person. To him a great amount of credit is due. If a stranger milked these special cows the change was demonstrated by decreased yields.

To show the strong bond of attachment existing between this herdsman and his charge, it is worthy of note that during the last days of December, his little daughter was stricken with pneumonia and lay in a hospital hovering between life and death, the mother leaving her home for the time being in order to be near the sick bed. The father went about his duties mechanically, ready for the message to call him to what he feared might be the last farewell to his child. The two cows, his special care at the time, "Melba XV" and "Melba XVII" simultaneously went off their feed and gave diminished quantities of milk. His grief seemingly was contagious, the faithful animals showing their affection and anxiety for their kind friend in this way.

This incident should be brought under the notice of all those who have the charge of dumb animals; it should inculcate in them a better understanding and a determination to never again ill-treat a cow, horse, or other animal. Meriting the affection of these two animals is more to the credit of this herdsman than being a prime factor in one of them putting up a world's record yield of butterfat.

Australia. W. G. HENDERSON.

Put Soft Corn in the Silo

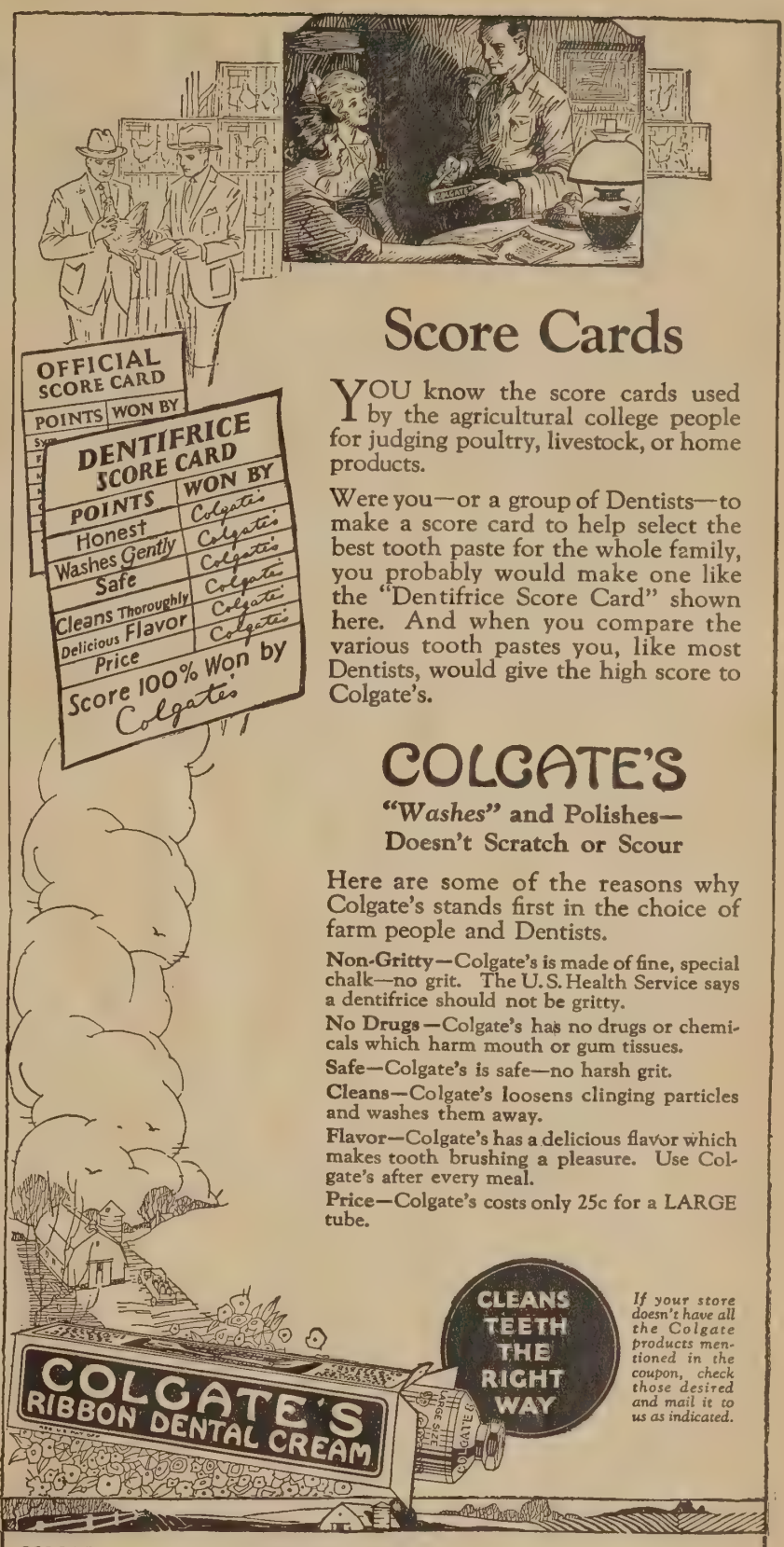
Soft corn, of which there will be large quantities in Minnesota this year, is a crop difficult to save without loss of feeding value. The best authorities, says Andrew Boss, vice director of the Minnesota Experiment Station, agree that a soft corn crop can best be saved without loss by putting the ears, stalks, and all into a good silo.

"If possible, the corn should be put in before freezing," says Mr. Boss. "It is difficult to anticipate when killing frosts will come, however, and sometimes corn is badly frozen before cutting. In such cases the corn should be cut just as soon as possible after the frost. Frosted leaves soon dry out, winds blow them off and the loss of feed is large.

"Even if the corn cannot immediately be put into the silo it should be cut as soon as possbile after the frost. With very immature corn it is advisable to wilt it before putting it in the silo. The wilting will require one to three or four days depending on the weather. When the corn is cut with a corn binder and thrown off in bundles, it may be allowed to lie on the ground for several days without injury.

"If the corn should be frozen and should stand for some time afterward before cutting, the wilting may not be necessary. Where corn is badly dried out after freezing it may be necessary to add water to provide sufficient moisture for the proper curing of the silage."

"I went to the zoo," said Elsie, excitedly, "and I gave the elephant a piece of candy. And—ooh! You should have seen him pick it up with has vacuum cleaner!"—Good Hardware.



Score Cards

YOU know the score cards used by the agricultural college people for judging poultry, livestock, or home products.

Were you—or a group of Dentists—to make a score card to help select the best tooth paste for the whole family, you probably would make one like the "Dentifrice Score Card" shown here. And when you compare the various tooth pastes you, like most Dentists, would give the high score to Colgate's.

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"Washes" and Polishes—Doesn't Scratch or Scour

Here are some of the reasons why Colgate's stands first in the choice of farm people and Dentists.

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If your store doesn't have all the Colgate products mentioned in the coupon, check those desired and mail it to us as indicated.

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PLEASE send me samples of the following articles. I enclose the amount of stamps shown for each one checked.

☐ Ribbon Dental Cream, Free
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EDITORIAL COMMENT



THE lateness of this year's corn crop emphasizes again the necessity of having soils rich in all the elements of fertility, and especially phosphorus. Lands which have a good available supply of phosphorus, and all other soil conditions favorable, have produced the best crops of corn. Phosphorus assists corn to ripen early. In other words, it hastens maturity. No element of fertility is more required for building a well balanced soil than phosphorus. It can be generally stated that most soils which have been producing crops for a series of years lack in phosphorus and will be improved by the application of some form of phosphoric fertilizer.

EVEN though frosts do not come until October, there is no hope of securing a one hundred per cent ripe corn crop. The season has been better adapted to growing small grains and hay than corn. It is perhaps unnecessary to call attention to the fact that owing to the high percentage of soft corn, extra care must be given in the selection of seed for next year. Indications are that seed corn will be scarce and high in price and the farmers who have a good percentage of matured corn will undoubtedly find it profitable to save more than the ordinary quantity of seed. In many instances it will be wise to select seed corn from the crib of last year's crop. Owing to the lateness of corn, it will pay every corn raiser to give more than passing attention to the selection of seed corn for planting in 1925.

SALT ESSENTIAL

It is more essential to provide the dairy cow with an adequate supply of salt than any other animal on the farm. In the manufacture of milk, she requires considerable salt and unless it is provided in liberal quantities, she will develop an abnormal appetite, dull eyes, a rough coat, and in the end there will be a complete breakdown. Dairy cows require varying quantities of salt. Those who are producing large flows require more than those producing small quantities. In a feed report of one of the leading dairy cows, it was stated that she consumed 50 pounds of salt in a year, or more than two ounces per day. This seems like a generous quantity of salt, but it was none too much considering the work that she did in the year.

We have considered it a good practice to mix with each 100 pounds of feed from one-half to one pound of salt and then arrange so that the cows may have free access to salt. This method will provide all the salt an animal requires and does away with any danger of neglecting to provide salt in adequate quantities.

CAN WE SEE OR NOT SEE?

To demonstrate how little each one of us observes of an incident, and how inaccurately we will relate it, if called upon to do so, the Kiwanis Club in a little city in Southern Wisconsin put on the following stunt:

A stage was arranged and a doctor was seated at a desk when one of his patients entered to pay a bill. It amounted to $62.00 and this amount of paper money was handed to the doctor and the patient walked out. At this moment a highwayman appeared, drew a revolver, and fired two shots. The doctor fell to the floor. The highwayman picked up the $62, placed it inside of a magazine, carefully closed it, and then put the money and magazine on the table. He then laid the revolver on top of the magazine and left the room. The curtains were drawn. A dozen men, members of the Club and who had seen the incident, were asked to leave the room. Then each was invited back to the room singly and asked to describe the incident. Not one of them could give a complete statement of what took place. Some said four shots were fired; others, one. The majority of them said the highwayman put the money in his pocket; others stated he put the money in the magazine but took the revolver and disappeared. The members were asked to describe the person who did the shooting. He was not masked. He was dressed in his usual manner and a member known to all of them. A majority did not recognize him and some thought he wore a mask. In short, not one of the number gave a complete outline of what took place and no two told the same story.

In conferring with a lawyer regarding this incident, he made this remark: "Whenever three or four witnesses in a trial tell the same story, we know they are lying."

The incident which we have described is simple but it does reveal poor observation and comprehension. It indicates that each one of us should be more careful in our statements whether they be made orally or in writing and that we should read and observe carefully if we are to get a clear and accurate understanding.

HOW TO INCREASE YOUR WEALTH

Wisconsin has 168 cow testing associations in operation with 76,101 cows on yearly test for 4,471 dairy farmers. Records were secured on fifty thousand of these cows last year, the average production being 7,106 pounds milk containing 273 pounds butterfat. This production is 44 per cent in excess of the average for all cows in Wisconsin.

A somewhat more striking comparison is contained in the following paragraphs from Mr. Cramer's annual report:

"The average Wisconsin dairy farmer can increase his income fifty per cent. This is not a 'get rich quick' scheme, nor a plan to sell 'blue sky' oil stock. Briefly the plan is this:

"The average cow, on the average farm where a scrub sire presides over the mixed herd and no testing is done and no milk sheet kept, does well to average 175 pounds of butterfat a year. On the other hand, the cows in carefully kept herds, tested in a cow testing association, fed in accordance with modern methods, and headed by a purebred sire, seldom average less than 275 pounds fat a year, and in such herds pound-a-day cows are common. Many, of course, maintain still higher records.

"It is obvious, then, that all the average dairyman has to do to increase his income fifty per cent or more is to get rid of his scrub sire, weed out his boarder cows, adopt modern feeding methods, and check up on his animals through a cow testing association. Some have already taken this method to the benefit of their bank account. Others are about to take the step. But there are still others who will continue in slipshod ways, working along the same old lines, ignoring modern methods, and then bitterly upbraiding fate, conditions, and the other fellow, for their misfortunes and lack of prosperity. Too often these very people are the ones who will invest their slender funds in wild-cat schemes, ignoring the opportunity for wealth that is at their very door."

PROPAGANDISTS ALWAYS BUSY

Since the tuberculin test has been used for determining animals suffering from tuberculosis and their elimination, there have been individuals opposed to it. At present more cattle are being tuberculin tested and better plans are being followed for the eradication of tuberculosis and preventing infection of the healthy animals, than at any time since the inception of the tuberculin test. Still we have individuals and even organized effort to defeat this splendid work. These objectors to the tuberculin test base their arguments upon false premises. They use the errors and the dishonest efforts of a few who have applied the tuberculin test as arguments against its application. Mistakes have been made, false statements have been made concerning its value, and incompetent and even dishonest men have applied the test. These things have caused some good men to doubt its value. This is unfortunate, but it is not a just argument against tuberculin testing or tuberculosis eradication. The ordinary scale with which we weigh all our commodities gets out of order and dishonest men do weighing, but no one thinks of doing away with the scale because of these happenings. We proceed to adjust the scale which is out of order and to replace the man who will not operate it properly.

In comparison with the extensive tuberculin testing work which has been done, comparatively few mistakes have been made, and since the plan for cleaning up whole counties has been adopted, splendid progress is being made. Nevertheless, the propagandists against tuberculin testing cause many uninformed farmers to wonder whether it is to their advantage to attempt to free their herds and flocks from tuberculosis.

The eradication of bovine tuberculosis is no small job. It requires intelligent and painstaking work upon the part of the owners of live stock if substantial progress is to be made. The work already done brings overwhelming evidence that, if the tuberculin test is rightly applied and the animals and the premises on which disease is found are properly handled, rapid progress can be made in the eradication of tuberculosis. The results obtained in testing whole counties bring strong testimony as to what can be done if we proceed in the proper way. The tuberculin test is not infallible, but it is the best diagnostic agent we have, and since substantial progress is being made with this test in the eradication of tuberculosis, we see no reason why any farmer should follow those who are putting forth false arguments against the test. The question merely resolves itself into this: Shall we, through systematic use of the tuberculin test, proceed to destroy bovine tuberculosis, or shall we permit it to run its course and claim annually millions of dollars' worth of live stock, and to continue to endanger the health of our children?

Selecting Grain According to Price

I have fifty head of registered Holstein cows. About half of them will freshen during the fall and the remainder at different times during the year. I want to make up a balanced ration, taking into consideration the prices of the different feeds. We grow alfalfa in abundance and harvest it just as it starts in bloom, save the leaves and stack so that it will discolor and be soft and pliable. We will feed only first and third cutting and sell second cutting as the cows don't like second cutting nearly as well. Will give them all the alfalfa they will eat. We will also have plenty of ensilage with ears left on and find it best to feed only about thirty or thirty-five pounds a day in order to get the cows to eat more alfalfa. I can buy old process linseed oil meal and 40 per cent protein cottonseed meal for $54.50 per ton at the ranch; wheat bran for about $28 and mill run for $30. Corn meal would now cost $52 and rolled barley about $48. This makes the last two feeds prohibitive in my opinion. How much of the linseed and cottonseed meal and either wheat bran or mill run would it be advisable to feed per day?

Sunnyside, Washington. S. E. C.

Our inquirer is in position to make a very good ration for his cows, for alfalfa hay and corn silage alone produce very good results. Under most conditions, however, some grain should be fed, even with these two good roughages, for the cows will remain in better physical condition, their milk flows will be sustained longer, and their offspring will be stronger.

We would let each cow have all the alfalfa hay she cares to consume and about 30 lbs. of silage per day. Since alfalfa is rich in protein, considerable corn can be used in the mixture, and corn at $52 a ton is cheaper than oil meal or cottonseed meal at $54 per ton; that is, the total nutrients are cheaper. If a person is looking for protein, then the oil meal and cottonseed meal furnish it several times cheaper than corn. In this particular case total nutrients are looked for quite as much as for protein. In view of this,

both barley and corn may be used liberally and will make a cheaper mixture than if a large quantity of oil meal or cottonseed meal were used.

A very good mixture to supplement silage and alfalfa hay is as follows: Ground barley, 300 lbs.; ground corn, 200 lbs.; bran, 300 lbs. Unless it is desired to have the cows do exceptionally well we would not use either oil meal or cottonseed meal. If the best milk flows are desired then we would add to the mixture already suggested, 50 lbs. oil meal and 50 lbs. cottonseed meal. Feed about one pound of meal for each 3½ lbs. to 4 lbs. of milk produced.

Contagious Abortion Questions

The following is a series of questions submitted by a South Dakota reader, together with answers by Dr. E. C. Schroeder of the U. S. Bureau of Animal Industry:

QUESTION 1: In case a cow has aborted to what extent can one rely on a blood test to show whether contagious abortion was the cause rather than a possible injury?

ANSWER: If a cow has aborted and reacts with an abortion blood-test, the only reasonable conclusion is that the cause was bovine infectious abortion.

The best available data indicate that upwards of 90% of all abortions among cattle are bovine infectious abortions, but the presence of bovine infectious abortion in a herd does not prevent the occurrence of abortions from other causes.

Abortions due to injuries are of rare occurrence unless the injuries are quite severe.

QUESTION 2: For how long after a cow has aborted or had retained afterbirth will a blood test show evidence of infection?

ANSWER: The length of time the blood of a cow may react with abortion tests after she has aborted or had retained afterbirth due to bovine infectious abortion varies greatly. In rare cases it may cease to react after four or five months; more commonly it continues to react two to three years, and it may continue to react the balance of the cow's life.

Reactions with the blood abortion tests vary greatly in strength. Studies are now in progress to determine whether the tests can be made serviceable to distinguish between cattle that actually have abortion germs in their bodies, and are therefore carriers and likely disseminators of the germs, and cattle that have been infected but the bodies of which no longer harbor the germs.

Those who know how much careful, tedious, technical work must be done before we can say with reasonable certainty at what degree of strength a reaction with the blood tests may be indicative only of past or former infection, and at what degree it indicates the presence of infection, need not be told that some time is apt to pass before the required data have been secured to support safe conclusions regarding this broader use of the tests.

It must always be kept in mind that apparently healthy cattle, which have never shown a sign of infectious abortion, may be carriers and disseminators of infectious abortion germs. Cattle of this kind expel abortion germs from their bodies in a dangerous way during and for a short time after, and probably for a short time before, parturition. Such cattle, notwithstanding that they calve normally and produce healthy, vigorous calves, as far as we know, invariably react strongly with the abortion blood tests, and the blood tests are the only known means to distinguish between them and abortion free cattle.

QUESTION 3. Where one cow in a herd has aborted, could one depend on a blood test of each of the other members of the herd to show which are carrying the disease in their systems?

ANSWER:—When one cow in a herd has aborted, a single blood test of the other members of the herd would reveal most but not necessarily all the infected animals. After a cow's body has been invaded by infectious abortion germs a varying period of time, the precise maximum duration of which has not yet been determined, passes before those changes in her body have occurred on which the blood tests depend. At present it may be assumed that cattle which have not been exposed to abortion infection for a period of from 30 to 40 days, and which do not react with blood tests, are free from the infection.

For example, if an abortion of the bovine infectious kind occurs in a herd and all the members of the herd are tested, and all those that do not react are removed to a place where they will not be exposed to infection, a second test without reactions, after the passage of at least 30 days, is required to prove that the cattle which failed to react with the first test are free from the infection.

QUESTION 4: If a blood test showed no evidence of the disease could one depend on that individual to carry her calf full time and to calve normally?

ANSWER: If a blood test showed no reaction, and the animal had not been exposed to infection during at least 30 days before the test was made, and thereafter was protected successfully against exposure to infection, she would carry her calf to full time and have no parturient troubles so far as bovine infectious abortion is concerned.

The absence of a reaction with a blood test, if the cow is exposed to infection, cannot be interpreted as signifying that she will carry her calf to full term. The abortion germ, unfortunately, may cause an abortion in less time after it enters the body of a cow than is required for the development of the changes on which the blood abortion tests depend. Plainly, while cows usually react with the abortion tests before they abort, a small proportion of exposed cows abort first and do not react until a number of days later.

The blood tests for bovine infectious abortion must not be mistaken as a means to distinguish between cows that are apt to abort and those that will not abort. They are serviceable only to distinguish between cattle that are infected and those that are not infected with abortion germs. Precisely like any other disease, bovine infectious abortion is so mild in some individuals that they wholly fail to show symptoms of its presence, and so severe in others that everything the disease can possibly do is clearly apparent. The severity of the disease in different individuals depends both on the susceptibility of the individual and the virulence of the germ, neither of which in the light of our present knowledge can be measured with abortion blood tests.

QUESTION 5: (a) Is the bull now considered to be a factor in spreading the disease? (b) If so, would a blood test show whether or not he is carrying it? (c) Would it be safe to introduce a bull calf that had never served a cow from a contaminated herd into a clean herd as herd sire?

ANSWER: (a) The bull may be a serious factor in spreading abortion disease if he is not properly handled, but not because he infects cows at the time of service. If he is kept in a bull pen and is permitted to come into contact with cows only on neutral ground and during the time of service, so far as can be judged from the available experimental and practical evidence, he is not a factor in the spread of bovine infectious abortion. The term, neutral ground, is used to designate ground to which cattle do not have access excepting at the time of service.

After a cow has been served by a bull of doubtful character she should be kept away from other cattle until all danger that infected material introduced by the bull may leak from her vagina has passed.

Whether a bull, promiscuously used, may spread other diseases of the reproductive organs than bovine infectious abortion, is a separate question. The answer here given concerns only bovine infectious abortion.

(b.) Blood tests made not less than 30 to 40 days after his last exposure to infection, would show whether a bull is an actual carrier of abortion germs.

(c) No animal, either male or female, young or old, from a known infected herd should be introduced into a clean herd until a blood test has shown it to be free from infection. At times young bulls and heifers, which have not had sexual intercourse, are infected with abortion germs.

It is less difficult and expensive to hold young stock from infected herds in segregation five to six weeks, and then prove it free from bovine infectious abortion with the blood tests before it is introduced into a clean herd, than it is to get rid of bovine infectious abortion that may be introduced into a herd by either young or old stock.

Emphatically, no animal of any age should be introduced into an abortion-free herd until it has been proved free from infectious abortion with a properly made abortion test. Infectious abortion is too common and widespread for an owner of a clean herd to take unnecessary chances with possible carriers of its germs.

QUESTION 6: What are now considered to be the factors in spreading the disease?

ANSWER: The most widely recognized factors in the spread of bovine infectious abortion are the abortion germs expelled by the aborting cow; the abortion germs expelled by the non-aborting, infected cow at the time of parturition, and the leakage of infected material from the penis of the infected bull if he is so kept that it may soil the feed and drink of susceptible cattle.

Probably nothing has contributed more to the spread of bovine infectious abortion than infected cows with good breeding records. Such cows do not abort but often are persistent carriers of abortion germs, which they may expel in large numbers at every seemingly normal parturition, via the vagina, for a period of time varying from a few days to a few weeks. There is only one way to detect such cows, and the way is the blood test. Cows of this kind, shortly after they have calved, may be introduced into clean herds and remain there a year or longer, until they calve again, and do no harm. When they calve again, under conditions which expose a herd to material discharged from their uteruses via their vaginas, the trouble soon begins; first an abortion or two and then a larger number of abortions and incidental breeding troubles. A good adage is, "Trust no cow until an abortion blood-test without a reaction has been made".

QUESTION 7: Would it be safe to take a clean herd onto a farm from which an infected herd had just been removed?

ANSWER: No, it would not be safe to take a clean herd onto a farm from which an infected herd had just been removed. Data are available to prove that abortion germs may live in aborted fetuses and afterbirth for several months, and the time that must pass before abortion germs in shady, moist places lose their virulence has not been definitely determined. A sunny pasture that has been thoroughly cleaned after the removal of an abortion infected herd probably is safe after the passage of 5 to 6 weeks; a shaded pasture would remain infected a longer time than a sunny pasture, and stables would remain infected for a length of time dependent upon their character, the thoroughness with which they are cleaned and the manner of their disinfection.

QUESTION 8: Any information that you can give that is not covered by these questions would be greatly appreciated. Please send me or tell me where I can obtain the latest available literature on this subject.

ANSWER: The literature on bovine infectious abortion is widely scattered through technical journals, and its character, owing to the advances made in the knowledge of the disease during the last 8 to 10 years, would be apt to mislead rather than help readers who are not qualified to analyze it. A bibliographic list therefore probably would have little or no value for the general reader and could be prepared only with the expenditure of considerable time and labor.

The most important facts about bovine infectious abortion that have a bearing on the spread of the disease may be summarized as follows:

1. Cows often are carriers and disseminators of abortion germs without showing signs of their infected condition. They have been known to harbor abortion germs in their udders continuously for a number of years without showing a single symptom of disease. The abortion germs in the udder often reach the uterus during pregnancy and are discharged in large numbers during parturition even when they cause no observable disturbances.

2. The dissemination of abortion germs is greatest and most dangerous when the contents of the pregnant uteruses of infected cows are expelled, irrespective of whether this occurs in the form of abortions or seemingly normal parturitions.

This is the reason for recommending the use of maternity pens or stables, to which all cows should be moved the moment they show signs of a threatening abortion or an approaching parturition, and in which they should remain until all discharges from their vaginas have ceased.

3. Leakage from the penis of an infected bull, if it reaches the feed or drink of cattle, is dangerous. Hence, the recommendations regarding the use of bull pens and service on neutral ground.

4. As infected cows may carry abortion germs in their udders continuously for years, all skimmilk and whey returned to the farm from creameries and cheese factories should be heated sufficiently to kill disease germs before it is fed to animals.

5. Infectious abortion is so widespread and common that no bovine animal should be trusted as free from disease unless it is proved so with an abortion test.

6. The exhibition of cattle at shows and sales, unless their feed and drink are scrupulously protected against contamination with anything that is expelled from the bodies of animals, probably is a commoner cause for the spread of infectious diseases than it is recognized to be, and this is particularly true of diseases like bovine infectious abortion and tuberculosis, the germs of which may be carried and disseminated by their subjects long before evidence of disease or symptoms are observable.

Hoard's Dairyman

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General Manager - - - FRANK W. HOARD
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Coming Events

Sept. 22-28—Dairy Cattle Congress, Waterloo, Iowa.

Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.

Oct. 17 and 18—International Association of Dairy and Milk Inspectors at Detroit, Michigan.

Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition, Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Seventy-three Looks Back

HOARD'S DAIRYMAN:—At the age of seventy-three one can look back over a long vista of the path of life and—if he has been at all observing—should have gained some useful knowledge from what he has seen and experienced along the path which he has traveled.

My father "entered"—as they called it at that time—eighty acres of government land in southern Wisconsin, securing a "patent" for it from Franklin Pierce (then President), and began as a pioneer wheat farmer, but I cannot recall a single instance when his wheat furnished the money for any large payment. It was always the stock which had to be depended upon to furnish the money with which to meet the larger payments.

I remember that during Buchanan's administration, when cows sold for $12 to $14 apiece in gold and a man could earn fifty cents a day in winter and a dollar a day in summer, Father bought an adjoining forty acres of land. Did he pay for it with wheat money? Not much. He held an auction of stock and in that way raised a lump sum for the first payment and—as near as I can recall—the deferred payments were met by the sale of cattle and hogs, not by wheat or small grain. During the Civil War he bought another adjoining forty acres of land. He traded in a bunch of cattle for the first payment and later again had recourse to an auction sale of cattle to meet the deferred payment. That time, receiving "war prices", he did pretty well. It was stock and not wheat which paid for the land.

All this time he was raising wheat as his main crop. Wheat, it is true, came in handy to take to the near-by water-propelled toll grist mill to have ground into flour for the family, bran for the milk cows, shorts and middlings for "slopping" the hogs. Once a year, a few loads of wheat were hauled over the twenty-five miles of hilly, stony, poor roads to market and sold for cash, but it brought barely enough to meet the "store bills" for the year.

The sheep furnished the wool that mother spun and wove into cloth out of which she made a large share of the clothing for the family. The sheep also furnished mutton for the family during summer. The butter and eggs were carried to the country "Cash and Barter" store and exchanged for groceries, "blue drillings," "hickory shirting," sheeting, and the other necessities, including some "ready made" clothing.

But in the early seventies when the pest of chinch bugs took the wheat, that way of farming came to an abrupt close and the farmers were forced to try some other way. They began by seeding down their fields with clover and soon began to specialize in dairying, more particularly in cheese making, in that part of the state.

That they have made a success of this I can vouch for, as they say, "by the evidence of my own eyes". As we drove through that part of Wisconsin recently on an auto trip, we were both surprised and pleased with the evidences of prosperity on every hand in that dairy and cheese country.

The writer pulled out from that part of the country in the early seventies. At that time it was generally conceded that those who pulled out showed good judgment, but from the present prosperity of that part of the country I have begun to doubt if we who left during the chinch bug scare were any " smarter" than those who remained and went into dairying and cheese making. More than that, they now have good graded and graveled roads so well numbered and marked that every wayfarer traveling over them feels thankful and is willing to concede that they have "the best road system in the country".

As an additional evidence of the confidence one places in the stock and dairy business, I can say that during the forty and more years during which I was engaged in the retail business and did a general credit business, we guaged the amount of credit extended to our farmer customers largely on the amount of stock they had. The one crop farmer was always, relatively, a poorer risk.

For the last twenty-five years I have been directly interested in farming and dairying. During that time what profits we had realized have come from dairying and hogs, not from small grain. The grain has been fed up on the place.

As still further evidence of the success of dairying and diversified farming as I have known it, as compared with other vocations, I will say this: We hear much about the high prices charged by plasterers, carpenters, mason, blacksmiths, and mechanics of all kinds, but I know of very few of that class of workmen who have retired on a competence, while I do know of many who have made dairying and mixed farming their life work who have brought up families, educated their children, and then retired on a competence.

My experience has been, mainly, in the small town and in the farming communities, still it may be as well to ponder over these things and not be enticed away from the farm by the higher wages and glare of the city.

But, as I said at the start, these things are all so self-evident as scarcely worth mentioning, if it were not for the fact that experience shows that many of the most important truths need to be told and retold over and over again.

Iowa. ED. HENDERSON.

Neighborhood Butchering

HOARD'S DAIRYMAN:—For a number of years from six to eight Montrose township neighbors in Lee County, Iowa, have done their butchering together. They bring their hogs to a central place, usually the farm that has the smoke house. One brings wood, others get the water, another rigs up a scaffold to hang the carcasses on, and everyone works.

The women come, too, and they have a big dinner ready for the men. It is a neighborhood affair which has become established.

As soon as the water in the big iron kettle boils everything is ready and the butchering commences. Since an extension man from the state college showed them how to kill their hogs by sticking, the old method of stunning has been abandoned. The hogs are stuck and scalded, thrown on a heavy gate raised on saw horses and scraped. As soon as one is out of the water another is ready for the scalding and things are kept moving. The hogs are hung up and cleaned and everyone is busy until the last hog is cleaned.

The following day the carcasses are taken down to be worked up. The hams, shoulders, and sides are trimmed and the trimmings and fat worked up into sausage or lard. Some of the meat is taken home to be used fresh and the other is marked and salted down in barrels to season. After the cure the meat is smoked over a hickory fire and there is country cured pork in every farm house to last well into the summer.

Iowa. A. M. WETTACH.

Plowing Contest

HOARD'S DAIRYMAN:—The famous 11th Annual Taylor County Plowing Match will be held this year at Jump River, Wis., on Sept. 23, on Wm. Brunschmid's farm. The village of Jump River is reached by Soo Railway or State Highway No. 73, or County Trunk Highway D. The grand feature of the whole program is the plowing match—12 to 20 teams with various makes of walking and riding plows contesting in their ability to turn the furrow just right.

Plowing is an art to which all farmers must give proper heed. The American farmer is equipped with efficient tools. And to achieve the greatest success in raising crops the soil must be properly turned over, broken, and refined. Plowing is the foundation of this work, therefore farmers should use this opportunity to good advantage. In addition to the plowing contest will be a demonstration of land clearing with Pyrotal, a team pulling contest, and other events.

WM. BRUNSCHMID, Sec.



LA NOCE'S MAY ROSE

The Atamannsit Guernsey herd, owned by George W. St. Amant, Massachusetts, has three cows that have just completed high records. One of them, La Noce's May Rose, has produced 18,119.9 pounds milk and 932.84 pounds fat, which makes her the world's champion Guernsey for her age at three and one-half years. This cow thus wins a coveted place that has been held for the last fourteen years by Dolly Dimple. Mr. St. Amant purchased her at the 1920 National Sale for much less than he had expected to have to pay for her. However, even though many breeders did not bid upon her that day, she proved his judgment correct.

Another cow that has just completed her record at Atamannsit Farm is Ultra of Edgemoor. She produced 13,493.6 pounds milk and 767.42 pounds fat, as a two-year-old, which gives her second place in her class. At the same time her half sister, Rose Queen of Edgemoor, has produced 13,130.9 pounds milk and 744.32 pounds fat, after dropping twin calves. She now holds sixth place in her class as a four-year-old.—AMERICAN GUERNSEY CATTLE CLUB.

The Minnesota State Fair

(Continued from page 239)

Laddie. Senior yearling bull—Waterloo Jersey Farm on Financial Beauty King Mark. Junior yearling bull—Waterloo Jersey Farm on Financial Fern Master. Senior bull calf—S. F. Crabbe, Minnesota on Noble's Financial Modeller.

Senior and grand champion bull—D. A. Buss, Minnesota, on Golden Isabella's Noble.



CARL THE 6TH, SENIOR AND GRAND CHAMPION BROWN SWISS BULL
OWNED BY MOONEY & LARRABBE, IOWA

Junior champion bull—Waterloo Jersey Farm on Financial Beauty King Mark.

Cow 4 years or over—Meredith Jersey Farm on Cowslip's Golden Iris. Cow 3 years under 4—Hermstead Dairy, Minnesota, on Blue Beard's Albion Countess. Cow 2 years under 3—Meredith Jersey Farm on Successful Golden Cowslip. Senior yearling heifer—S. F. Crabbe on Super Noble Hope. Junior yearling Heifer—W. M. Knight, Wisconsin, on Majesty's Ixia's Orange. Senior heifer calf—Meredith Jersey Farm on Successful Beauty Queen.

Senior and grand champion cow—Meredith Jersey Farm on Successful Golden Cowslip. Junior champion heifer—W. M. Knight on Majesty's Ixia Orange.

Graded herd—Meredith Jersey Farm. Yearling herd—Waterloo Jersey Farm. Pair calves—Meredith Jersey Farm. Get of bull—Meredith Jersey Farm on Financial Beauty's King. Produce of cow and dairy herd—Meredith Jersey Farm. Minnesota County Group—Washington County. State herd—Minnesota.

Holstein

Judge: T. E. Elder, Massachusetts

Bull 4 years or over—Baltz Hoesly, Wisconsin on North Star Joe Homestead. Bull 3 years, under 4—Mudcura Farm, Minnesota, on Duke Pietertje Korndyke Ormsby 31st. Bull 2 years, under 3—Taylor and Christgau, Minnesota, on Duke Ormsby Piebe De Kol. Senior yearling bull—Glantz Bros., Minnesota, on Count Pietertje Mercedes Canary. Junior yearling bull—Minnesota Holstein Co., Minnesota on Sir Inka May. Senior bull calf—Marlow and Randall, Minnesota, on Mankato Ruby Marathon Ormsby 18th.

Senior and grand champion bull—Baltz Hoesly on North Star Joe Homestead. Junior champion bull—Minnesota Holstein Co. on Sir Inka May.

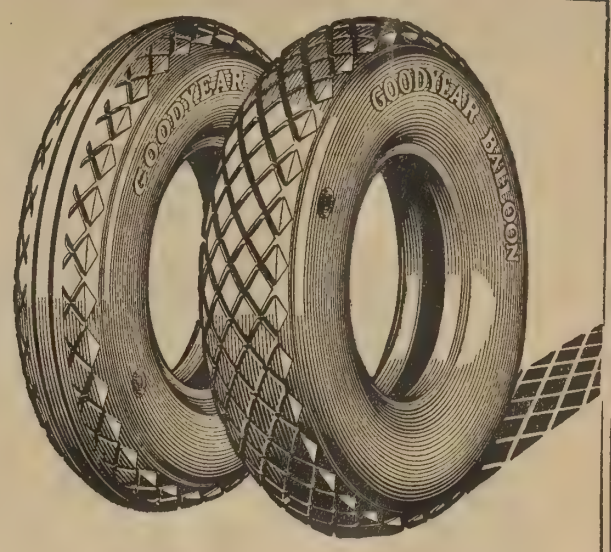
Cow 4 years or over—Glantz Bros., Minnesota, on Prilly Tirania. Cow 3 years, under 4—Mudcura Farms on Pietertje Fayne Countess. Cow 2 years, under 3—Minnesota Holstein Co. on Star Segis Homestead. Senior yearling heifer—Minnesota Holstein Co. on Star Homestead Segis. Junior yearling heifer—Mudcura Farms on Oakwood Piebe Allie. Senior heifer calf—J. M. Hackney, Minnesota, on Colantha Ormsby Segis Piebe.

Senior and grand champion cow—Glantz Bros. on Prilly Tirania. Junior champion heifer—Mudcura Farm on Oakwood Piebe Allie.

Graded herd—Mudcura Farm. Yearling herd—Jefferson County Asylum, Wisconsin. Pair calves—J. M. Hackney. Get of bull—Minnesota Holstein Co. on Piebe Laura Ollie Homestead King. Produce of cow—Marlow and Randall. Dairy herd—Minnesota Holstein Co. Minnesota County Herd—Scott County. State Herd—Minnesota.



BETTY OF LAKE VIEW, SENIOR AND GRAND CHAMPION BROWN SWISS COW
OWNED BY A. E. BOWER & SON, ILLINOIS



Elasticity—that is the great and paramount virtue of the sensational new Goodyear cord fabric SUPERTWIST! It far *o-u-t-s-t-r-e-t-c-h-e-s* the breaking point of standard cord fabric. It adds to the flexibility of the thin-sidewall balloon tire that stout *carcass-endurance* which every good tire must have. SUPERTWIST, *used only by Goodyear*, protects Goodyear Balloon Tires against stone bruise and rupture, while assuring users maximum comfort and riding ease.

Goodyear Means Good Wear

GOODYEAR

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Silage from Soft Ear Corn

There is lack of silo room in many places for the whole corn crop should it be frosted or immature. The ears are the most valuable part of the crop. These should be saved in any event. It is difficult to save the ears of a soft corn crop by storage in cribs. The Iowa Experiment Station in 1917 demonstrated that the soft ears in the late roasting stage could be husked, run through a silage cutter and tightly packed into silos with very good results. The silage resulting after twelve days of fermentation was of surprisingly good quality. The silage kept well, held its flavor, and at the end of two months was found to be in excellent feeding condition. Silage can be made in ten or twelve days and it is probable that it will be ready to feed two weeks after filling.

It is not necessary to husk the corn in order to make soft ear silage. Snapped corn can be handled just as satisfactorily as the husked corn and the husks give the advantage of greater bulk and additional feed.

The Iowa station urges chopping the corn finely in making ear corn silage and packing it tightly in the silo by tramping, especially near the walls. Silage made from ears that are partially matured may require the addition of water to insure proper packing and prevent overheating and molding in the silage-making process. Silage made from ear corn should be covered with a layer of finely cut corn fodder or stover. If such a cover is not provided there will be too much waste of valuable corn. It is not advisable to make silage of mature or nearly mature corn. The cobs prevent packing and they do not contain sufficient sugar to permit the fermentation which is necessary for preservation.

Ear corn silage should be fed as a concentrate, not as a roughage.—ANDREW BOSS, Minnesota College of Agriculture.

Trench Silos Practical

F. L. Cooper, of the Colorado College of Agriculture, says that trench silos are practical where the farmer needs a make-shift silo to take care of the forage that has been damaged by hail or drouth, and where there is neither time nor money to build a more permanent silo.

"Trench silos answer the purpose if properly constructed and properly filled," says Mr. Cooper. "Most of the complaint regarding their use comes from the fact that they are poorly built or that the silage is not well packed. Trench silos, in what we ordinarily call tight soil, stand up for a season or two but in the lighter soils the walls will not last unless they are plastered with cement. They can be quickly and easily built with the use of a scraper and should not be deeper than 8 or 10 feet. The walls must be made smooth with a spade. The length of the silo depends upon the amount of forage to be stored in it.

"The silage should be cut in the usual way and tightly packed, evenly tramped and covered with a layer of at least 8 inches of straw and 8 to 12 inches of earth on top of the straw."

Those interested in detailed plans may obtain same by writing to the Extension Service, College of Agriculture, Fort Collins, Colorado.

New Michigan Holstein Record

Michigan's new Holstein champion cow for ten months' production as a junior three-year-old is Traverse Duchess Korndyke, owned by the Detroit Creamery Company. Her record is 20,456.4 pounds milk containing 671.43 pounds butterfat, equivalent to 839.2 pounds butter, according to the Advanced Registry Department of the Holstein-Friesian Association of America—Extension Service Holstein-Friesian Ass'n. of America.

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We ask no pay till 4 months of sun and rain have proved all our claims. SEAL-TITE must do what we say it will or it costs you nothing. Could you make a fairer offer if you wrote it yourself?

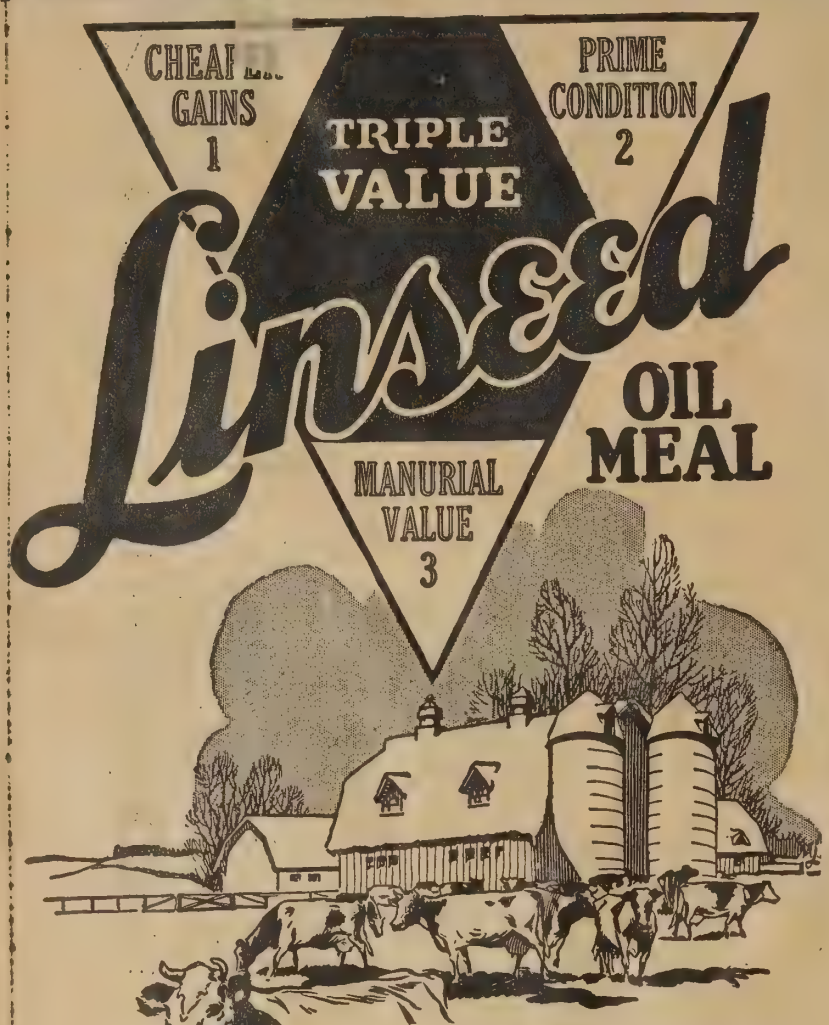
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Our big, illustrated circular tells all about how you can turn an old, leaky roof into a new, watertight roof, guaranteed for 10 years, at a small fraction of the cost of a new roof. What a wonderful chance to save! Don't wait for the next rain to remind you that your roofs leak. Look into this thing right now. Send today for full details of our amazing offer. Write TODAY!

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Balance the ration with

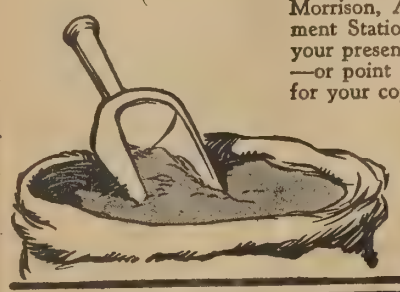


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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Colo.	Mesa Co.	Aug.	R. H.	82.2	F. Clymer
Ill.	Kane Co. 2	"	R. H.	61.3	O. E. Pritchard
"	McHenry Co.	"	R. H.	66.8	R. W. Stewart
Ia.	Hancock Co. 1	"	G. S.	51.7	B. Steffen
Mass.	N. C. Berkshire	July	R. H.	71.7	S. Kelly
Mich.	Barry 1	Aug.	R. J.	65.0	Young & Campbell
"	Greenville	"	R. G.	59.7	A. M. Berridg
"	Charlotte	July	G. H.	59.9	W. P. Bennett
"	Tuscola 1	"	R. H.	57.4	G. Russell
Minn.	Cannon Val.	Aug.	R. S.	47.6	O. Maring
"	Martin Co. 2	"	G. S.	62.1	W. Behrens
"	W. Dakota	"	R. H.	75.2	Thelander Brothers
Mo.	Green Co.	July	G. J.	54.3	A. F. Stephens
"	Jasper-New.	"	R. J.	65.4	G. Lochrie
S. D.	Day Co.	Aug.	R. H.	66.5	L. Larson
"	Sioux Falls	"	R. H.	80.6	State Pen.
Utah	Rich.-Lew.	"	G. H.	59.4	M. W. Hendricks
"	Wellsville	"	G. H.	62.7	P. Murray
Vt.	Conn. Valley	July	G. H.	70.3	C. O. Sawyer
Wis.	Alto-Met.	Aug.	G. G.	61.3	A. A. Bruins
"	Bloomer 1	"	G. H.	53.1	H. Johnson
"	Bruce	"	G. H.	48.5	J. Hilten & Son
"	Cedar.-Graf.	"		50.0	E. Berndt
"	Coon Valley	"	G. H.	64.6	L. A. Knudson
"	Dunn Co. 1	"	G. H.	62.9	O. Halvorson
"	Eau Claire 1	"	G. G.	61.0	S. Meyer
"	Farmington	"	R. H.	61.7	W. Gruhle
"	Fountain City	"	G. J.	56.9	E. Haeuser
"	Independence	"	G. H.	65.5	J. Hulama
"	Lancaster	"	G. H.	63.4	B. Raisbeck
"	Marshfield 2	"	G. G.	52.3	Mrs. C. Tews
"	Milton-Edgerton	"	R. H.	59.1	R. V. Hurley
"	Neillsville 1	"	R. H.	58.4	W. Naedler
"	Plov. Marathon	"	G. H.	75.6	P. A. Krubsack
"	Rewey	"	R. H.	63.7	Bainbridge Brothers
"	Saukville	"	G. H.	64.5	N. Jacque
"	Shawano-Marathon	"	G. G.	60.4	I. Dexter
"	Spring Green	"	G. G.	67.5	E. M. Hickes
"	Tennyson & Dickeyville	"	G. J.	54.3	A. Winkler
"	Westby Jersey	"	R. J.	64.2	Mrs. M. Neprud
"	Alma-Cochrane	"	G. H.	62.4	P. Hoose
"	Edgar	"	R. H.	57.7	L. Hart

Association Notes by Testers

Mesa Co., Colo.: A picnic and general meeting was held last month. For August producers received $2.90 for market milk, with the creameries paying 33c per lb. for fat. Milk retails for 10—12½c a quart and butter for 45c a pound.—C. H. Boyd.

Kane Co., No. 2, Ill.: The average production of the 528 cows tested in August was 25 lbs. fat. Production is declining, together with returns over feed cost, which increased the cost of production 33% over the previous month. Two herds received their first tuberculin test under Federal supervision, with a third of the cattle reacting. Two more herds are now signed up for test. In July, producers received $2.60 cwt. for market milk. Milk retails for 10—13c a quart and butter for 43—45c a pound.—W. K. Bullock.

McHenry Co., Ill.: Twenty-five of the 28 herds in the association have been tested for tuberculosis. Of the 9 accredited herds, 4 are found among the high herds nearly every month. In August producers received $2.60 a cwt. for market milk. Milk retails for 10—12c a quart, cheese for 46c a lb. and butter for 54c a lb.—Bruce McClellan.

Hancock Co. No. 1, Iowa: One barn has been whitewashed. Three members are weighing their milk. Adding a disk to one separator reduced the test of the skimmilk by .04%. The creamery paid 39—43c for fat in July. Milk retails for 10c a quart and butter for 40c a lb.—H. W. Tiggeman.

Northern-Central Berkshire, Mass.: All but two members are feeding grain on pasture. Guernseys are in demand at present. One member has stopped selling fluid milk and is making butter for retail. In July producers received $2.75 a cwt. for market milk.—Theodore H. Weed.

Barry No. 1, Mich.: Cows are shrinking in milk production. Several acres of alfalfa are being sown this month. In August producers received $1.55 a cwt. at the condensery, with the creameries paying 37—42c a lb. for fat. Milk retails for 10c a quart and butter for 40c a lb.—W. W. Preston.

Montcalm, Mich.: One member is erecting a silo. Several members are expecting to go to the National Dairy Show. In August producers received $2.50 a cwt. for milk, with the condensery paying $1.75. The creamery paid 37—40c a lb. for fat.—K. S. King.

South Eaton, Mich.: In July producers received $1.75 a cwt. for market milk, the creamery paying 38—45c a lb. for fat. Milk retails for 10—12c a quart.—Hans E. Kardel.

Tuscola No. 1, Mich.: Several herds tested for tuberculosis and only four reactors found. One member installed modern equipment and two members have built milk houses. Two unprofitable cows were sold. The association average for the first six months is 151.5 lbs. fat per cow. Producers received $1.60 a cwt. for market milk, with the condensery paying $1.50 a cwt. and the creamery 39c a lb. for fat.—Eldon R. Bruce.

Cannon Valley, Minn.: In July producers received $1.85 a cwt. for market milk. The cheese factory paid 45c a lb. for fat and the creamery 43c. Market milk retails for 10c a quart.—Glenn H. Boldt.

Martin Co. No. 2, Minn.: The only herds holding up in milk production are those fed grain. The three testers in this county are planning on having an exhibit at the county fair. In July the creamery paid 42c a lb. for fat.—Harry A. Anderson.

West Dakota Co., Minn.: For the first time the number of cows tested dropped below 400 and the average per cow to less than 25 lbs. fat. In July producers received $1.85 a cwt. for market milk. Milk retails for 10—11c a quart and butter for 40c a lb.—Lee L. Hammond.

Greene Co., Mo.: Of the 364 cows on test, 5 produced over 50 lbs. fat, the average of all cows being 23 lbs. Nearly all members have an abundance of good legume hay this year and a bumper corn crop. We have four new members. In July producers received $2.50 a cwt. for market milk.—V. L. Gregg.

Jasper—Newton, Mo.: In July the creamery paid 28—32c a lb. for fat. Milk retails for 10c a quart.—B. F. Schaefer.

Day Co., S. Dak.: One barn remodeled and modern equipment installed. The grain yields are the largest for some years. In August producers received $2.00 a cwt. for market milk. Milk retails for 8c a quart and butter for 35c a lb.—E. M. Duryee.

Sioux Falls, S. Dak.: One new silo erected and one barn remodeled and equipped with a ventilating system and individual drinking cups. One new milking machine brings the total to nine now being used. In August producers received $1.75—2.25 cwt. for milk. The creamery paid 31c a lb. for fat. Milk retails for 12c a quart, cheese 25c a lb. and butter 34c.—Calvin E. Heeren.

Richmond—Lewiston, Utah: Pastures are very dry, causing most members to feed alfalfa and a few beet molasses with a little grain. More of our dairymen should dairy every day instead of one or two weeks a month.—LeRoi Nelson.

Wellsville—College Ward, Utah: Two registered Holstein bulls were purchased and six unprofitable cows sold. In August the condensery paid 44c a lb. for fat. Cheese retails for 30c a lb. and butter 45c.—Reuben Hansen.

Connecticut Valley, Vt.: The association enters its second year with four new members. The average

price of fat was 43c a lb. with an average cost of grain of $47 a ton. Milk retails for 10c a quart.—Edw. T. Leavitt.

Bloomer No. 1, Wis.: Several herds tested for tuberculosis, with reactors found in two herds. In July the condensery paid 44c a lb. for fat and the cheese factory 38c.—Charles Wirth.

Cedarburg—Grafton, Wis.: Thirteen herds tested for tuberculosis with 5 reactors. The association now has 8 accredited herds. In August producers received $2.18 a cwt. for market milk. Cheese factory paid 43c a lb. for fat and the condensery 45c.—Gust Wild.

Coon Valley, Wis.: Grain is turning out fairly good. Two members are installing modern barn equipment. The association had a picnic. the main attraction being a ball game in which the Holstein breeders beat the Guernsey breeders. In August the creamery paid 43c a lb. for fat—W. H. Klahn.

Eau Claire No. 1, Wis.: In July the condensery paid 45c a lb. for fat, the cheese factory 46c, and the creamery 42c. Milk retails for 10c a quart and butter for 40c a lb.—Wm. Griffin.

Farmington, Wis.: All herds are under federal supervision for tuberculosis. In August the condensery paid 47c a lb. for fat, the creamery 47c and the cheese factory 45c. Cheese retails for 20c a lb.—J. G. Strathearn.

Fountain City, Wis: Three more members have put up their first silos. One member has installed new stanchions and another has installed ventilation and improved his milk house.—Orrin A. Haensen.

Independence, Wis.: Three cows produced over 60 lbs. of fat during August on a feed of 4 to 5 lbs. of a mixture of equal parts of oats, barley, and bran. The association and calf club made a good showing at the county fair, securing premiums on every animal shown. Most of the cattle were taken from pasture, clipped, and sent to the fair, where they competed against fitted cattle from three counties. We consider we have the real stuff or we would have been left out entirely.—Peter Nelson.

Lancaster, Wis.: Of the 409 cows tested, 43 made over 40 lbs. fat. Three cows were sold for dairy purposes and three were killed by lightning. Farmers are out of grain and have quit feeding, due to high price. Those that bought grain and fed their cows received a larger profit per cow than those who did not feed grain.—Albert J. Claudal.

Milton—Edgerton, Wis.: In August the condensery paid $1.66 a cwt. for milk and the creamery paid 40 cents a lb. for fat.—Warren H. Roberts.

Rewey, Wis.: In August the cheese factory paid $1.58 a cwt. for milk and the creamery 38.5 cents a lb. for fat. Milk retails for 10 cents a quart, cheese for 32 cents a lb. and butter for 45 cents a lb.—Harry Robinson.

Saukville, Wis.: In August the condensery paid 58 cents a lb. for fat and the cheese factory and creamery 42 cents a lb. Milk retails for 10 cents a quart.—Nick Schocksmitt.

Alma—Cochrane, Wis.: The second annual report is now ready for distribution. One milk house was built and one barn was remodeled. Boarder cows are getting scarce. In August the creamery paid 45c a lb. for fat.—E. P. Bailey.

Spring Green, Wis.: The Progressive Calf Club, started by the tester last February, finished its work by winning first prize at the county fair. Miss Mildred Kever won $15 with her Guernsey calf, as also $10 at the local fair. Out of two calves taken to the Mineral Point fair, both stood far above other calves there in excellence of type and fitting condition. Next year we will give chances only to boys and girls between 11 and 18 years of age with pure-bred calves.—V. H. Dani.

Tennyson—Dickeyville, Wis.: Forty-three out of 360 cows tested produced over 40 lbs. of fat. In August the cheese factory paid 37 cents a lb. for fat and the creamery 38—40 cents a lb.—Joe Aufdermauer.

Westby Jersey, Wis.: Two new separators were bought and others repaired. The shortage of pasture has brought on more grain feeding. Two herds have passed a clean tuberculin test. In July the creamery paid 44c a lb. for fat and milk retailed at 10c a quart.—Harry Oehmcke.

Edgar, Wis.: In July the cheese factory paid 42c a lb. for fat and the creamery 43c.—E. L. Nordgren.

Proven Ration of Central Wisconsin

HOARD'S DAIRYMAN:—The cows of the Greenwood, Wis., Cow Testing Association have been doing exceptionally well this year. Herd averages of forty pounds are not unusual. A grade Holstein herd of eleven cows in the month of March made an average of 60 lbs. fat. The Association finished the month of February with 67 forty-pound cows. In March it will report over 100 forty-pound cows.

Clark County, with Greenwood in the heart of it, is a comparatively new dairy country, but it boasts 13 cow testing associations, more than any other county in the world. The feeds fed in the association are largely clover hay, corn silage, oats, corn, and oil meal. Previously a great deal of bran has been fed. This year we have with good results fed oats and corn and oil meal, with our clover or mixed hay and corn silage. The cost of our feed bill has thus been reduced, allowing a greater margin of profit over the cost of feeds. In addition to this our cows are coming out of the period of heavy feeding, coupled with heavy production, in better condition, better fit to continue their high production on the summer pasture. Bran has been used for cows springing, feeding it in the form of a bran mash just before and just after freshening; and, too, to change or vary the ration for a short period of time. Bran stimulates the milk flow but we find it is hard on the condition of the cow. We advise it only where we have excellent corn silage or with a bigger percentage of corn in the grain mixture. Even then we use oil meal in the ration as a cheaper source of protein.

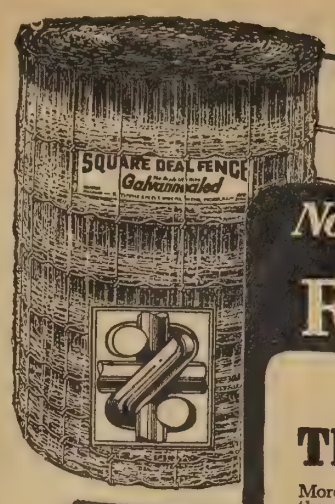
We are looking forward to next winter when we expect to give alfalfa a real try in Clark County and in the Greenwood Association. Over 600 acres of alfalfa is to be planted in Clark County this spring. Soy bean hay and soy bean meal raised on our farms have been fed in our association but only to a limited extent. Soy beans both for hay and soy bean meal will be increased this summer.

INGVALD O. HEMBRE, Tester.

The latest Jersey to break a Michigan record is Oxford Daisy's Keepsake. Starting on test at three years and five months of age this cow produced 725.69 pounds fat and 13,540 pounds milk in 365 days. Calf was carried for 206 days of the test.

On this record Keepsake wins a gold medal and a silver medal and becomes junior three-year-old Jersey fat champion of Michigan.

The new champion is owned and was bred and tested by Mr. H. F. Probert.—The American Jersey Cattle Club.





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NOTICE!!

Square Deal Fence, famous for many years, is now made only by our patented "Galvannealed" process that puts on 2 to 3 times more zinc protection and sold at no extra price. Always look for the Red Strand.



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More "Galvannealed" Square Deal Fence has been sold to the railroads the past year than ever before—BECAUSE—railroads buy by test. "Galvannealed" is Guaranteed to have more zinc coating than any other farm fence.

Railroads know that this copper-bearing "Galvannealed" Square Deal Fence won't have to be replaced for many, many years. They know this new process masters rust.

The Triple Life Wire Galvannealed Square Deal Fence

NO EXTRA PRICE

has been proven by Indiana State University; nationally known testing laboratories, railroads and other authorities everywhere to have 2 to 3 times more zinc coating than ordinary farm fence. (Copies of official tests will be sent upon request.)

In addition to the thick outer coating of zinc that prevents rust, the copper-bearing open hearth steel wire also lasts many years longer than steel without copper. And, best of all, it costs not one cent more than ordinary galvanized wire. In fact, Square Deal fence costs less than half as much when you figure how many years longer it lasts.

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Dairymen From Far and Near

ARE GOING TO THE

World's Greatest Dairy Exposition

Special trains will come from many sections—special cars will be made up from both nearby and distant points—automobile parties are now being organized.

CATTLE JUDGING DAYS

Grade Cows.....Monday, Sept. 29
Guernsey Day.....Tuesday, Sept. 30
Holstein Day.....Wednesday, Oct. 1
Jersey Day.....Thursday, Oct. 2
Ayrshire and Brown Swiss Day....Friday, Oct. 3
Boys' and Girls' Calves.....Friday, Oct. 3

OTHER EVENTS:

SALE OF GUARANTEED GRADE COWS BEGINS SEPTEMBER 30

AMERICAN DAIRY SCIENCE ASS'N. MEETINGS SEPTEMBER 29 and 30

DAIRY PIONEERS' DAY, SEPTEMBER 30

American Dairy Federation Meeting, National Dairy Farmers' Conference, October 1—and Many Others.

COME—Mingle with other progressive dairymen from everywhere—See every branch of Dairying in its Annual Exposition

NATIONAL DAIRY EXPOSITION
MILWAUKEE - Sept. 27 to Oct. 4

THE INDIANA STATE FAIR

C. T. CONKLIN, OHIO



HELEN KYLE OF INDIANA

Winner of first place in American class in poultry club show at Indiana State Fair. She set 50 eggs and raised 47 chickens.

THE dedication of the handsome new cattle barn at the Indiana State Fair was fittingly accomplished with an exhibition of some 500 head of dairy cattle. Holsteins, Guernseys, and Jerseys were about even in numbers; Ayrshires were light and no Brown Swiss classification was provided. Very few state fair grounds can boast of a better cattle barn than the new structure at Indianapolis. It is of brick and steel construction and will comfortably care for an exhibit of from 1,800 to 2,000 head of cattle. The roof is unusually high, which provides excellent ventilation; the aisles are wide; a feed alley between the rows of cattle allows sufficient storage space, and above all the building is light and airy.

Dairy Exhibits

What can be done to bring the dairy industry of a state before the people was well demonstrated at the Indiana State Fair held at Indianapolis, September 1st to the 5th.

The dairy exhibits were entirely educational and were made possible by the companies engaged in the manufacture and distribution of dairy products in the state co-operating with the dairy and extension departments of Purdue University. The dairy exhibits, this year, were in the excellent Purdue Building, just recently finished, which the State Board of Agriculture has so generously provided for the use of the University for their state fair exhibits. The dairy exhibits were probably the most outstanding exhibits on the fair grounds.

It is needless to say that this exhibit attracted a great deal of attention, and many of the visitors at the state fair saw these exhibits, stopped to read the illustrated material just above the large glass windows, which gave some outstanding facts regarding Indiana's dairy industry, as well as facts relating to the importance of consuming more milk and its products. The other part of the dairy exhibit was an exhibit of eight Indiana milch cows, taken from Indiana cow testing associations. The profit over feed cost of one of these cows was equal to the combined profit of the other seven. This fact was brought out by means of charts and figures, and a great lesson in breeding and feeding of dairy cows was taken home by all who viewed this exhibit.



AYRSHIRE CALF CLUB SHOW AT INDIANA STATE FAIR

Holsteins

The Holstein show was almost exclusively an Indiana proposition with excellent herds from H. A. Brace of Wisconsin, F. O. Larson of Iowa, and the Du Page County, Illinois, exhibit. The first prize aged bull, Duke Ormsby Aaggie Canary, was exhibited by Charles Weidler of Indiana. Although a winner of the senior championship, the grand champion honors went to the sensational six-month-old calf, General Homestead Mercedes, shown by H. Brace & Sons of Wisconsin. Although a junior calf is not generally a popular champion, this case was an exception and the ringside quite generally agreed that the combination of quality, character, and capacity entitled this youngster to the purple. F. O. Larson of Iowa showed the winning two-year-old and yearling bulls.

B. S. & S. H. Dragoo of Indiana won the aged cow class on the well balanced Pauline Netherland Vashti 2nd. The three-year-old class was topped by Corwin Colantha Florence Ormsby, the well-known winner of the two-year-old class at the 1923 National, and now owned by Dragoos. Although hardly in show condition, this good heifer with her great scale, squarely attached udder of excellent texture, and good type, could not be denied the grand champion honors.

The winning two-year-old was brought out by Du Page County, while the junior champion was a daughter of the second prize aged cow, both shown by Charles Weidler of Indiana. F. O. Larson won three blues in the junior yearling and two heifer calf classes. J. C. Cort of Wisconsin tied the ribbons in a very satisfactory manner.

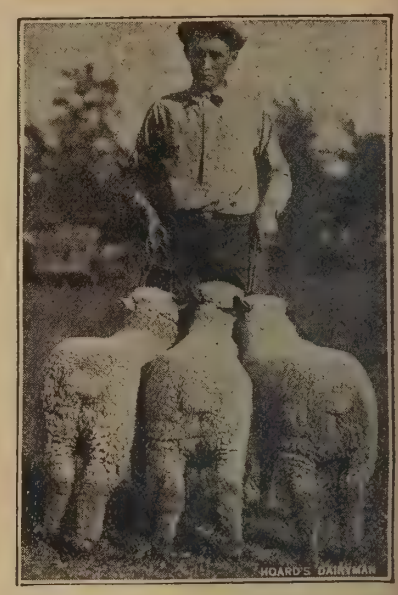
Jerseys

Excellent quality prevailed with the tops of the Jersey show. Indiana breeders were out in force, together with the Pebble Hill Plantation, R. C. Tway, and Camden Terrace from outside the state.

The aged bull class was won by the sensational Adelina's Sultan from the Pebble Hill herd, that went on through to the senior and grand champion honors. The junior champion was a very typy, straight-lined yearling from the Scranton & Dugle herd.

The aged cows were topped by Fern's Oxford Anemone from the Pebble Hill herd. Championship honors were hers by virtue of her desirable type, character, and shapely udder. The junior champion was the big, strong senior yearling heifer from the Camden Terrace exhibit.

Scranton & Dugle had the edge on their Indiana competitors by winning several of the open classes as well as young herd, get of sire, and produce of dam. The awards were made by Professor L. H. Fairchild of Purdue University.



ROBERT NASH OF INDIANA AND HIS GRAND CHAMPION LAMBS IN THE CLUB CLASS

Guernseys

The best show of Guernseys in the annals of the Indiana Fair was staged by the Indiana breeders together with the Gayoso herd of Mississippi, the Sweets Springs herd from Ohio, and the Waukesha County, Wisconsin, herd.

The aged bull class was won by the thinly fleshed but impressive Proud Prince of Edgemoor, shown by Edward T. Williams of Wisconsin. The winning two-year-old was from the same exhibit, shown in the name of

(Continued on page 253)



WINNING TEAM IN LIVE STOCK JUDGING CONTEST AT INDIANA STATE FAIR

Left to right: H. Williams, C. Bussell, W. Hiatt, D. Johnson. They made 1,846 points out of a possible 2,000.



SEPASOOT PEARL, SENIOR AND GRAND CHAMPION GUERNSEY COW

Shown by George & Mackay, Indiana



DEFENDER OF WADDINGTON, SENIOR AND GRAND CHAMPION GUERNSEY BULL

Shown by C. J. & W. A. Connell, Wisconsin



SENIOR CHAMPION HOLSTEIN BULL, DUKE ORMSBY AAGGIE CANARY

Shown by Charles Weidler, Indiana

MICHIGAN'S THREE-QUARTER CENTURY FAIR

IT was with a sense of reverence that we walked across that splash of green set down there in the heart of Detroit, Uncle Sam's fourth largest city. For this spot was the scene of the first state fair held west of the Alleghanies just three-quarters of a century previous. At that time this place was on the outskirts of a small but thriving village. But what a change! In place of open country, huge skyscrapers loom up toward the heavens on every side. The horses and lumbering ox teams are gone and almost forgotten by the scrambling, scurrying mobs that weave their perilous way through the throbbing traffic of impatient horseless carriages and street cars. It was as though a great paint bucket in the sky had carelessly splashed a drop of green paint over the sides and they called it Grand Circus Park.

Can you picture that first state fair?

"Michigan's pioneers gathered the choicest of their crops and herds and brought them to a place just outside of Detroit," says G. W. Dickinson, for the past 12 years secretary-manager of the Michigan State Fair. "There under the patronage of the governor of the state and other men were held plowing contests. The first farm machinery, designed to raise American agriculture above the level of mere physical exertion, showed what it could do.

First Fair Financial Success

"This first fair was self supporting. The receipts were $3,700. Its initial success made it a permanent institution. In the years that followed it travelled about the state until 1905 when it settled on the present site of 167 acres, again on the outskirts of Detroit but this time some eight miles from the original fair grounds."

It is interesting to know that the fair was founded by the same men who founded Michigan Agricultural College, said to be the first of its kind in the world. Thus the Michigan State Fair was an outgrowth of an educational enterprise.

As has grown the city, so has grown agricultural and industrial Michigan, and so has grown the mirror of her commonwealth, the state fair. And at the entrance to her magnificent fair grounds we were greeted by these words, "Michigan State Fair, Still Growing". We entered, we saw, and we believed. From the attendance standpoint alone this statement had deep significance. Those who watched the plowing matches in 1849 were a mere handful compared to the more than 400,000 visitors who crowded through the gates between August 29 and September 7, 1924.

In keeping with the observance of the diamond wedding anniversary of the fair to the growth and prosperity of the state, a number of honor guests were entertained by the management. One of those so honored was Mrs. Florence Babbitt who attended the state fair held in Ann Arbor 70 years ago. G. A. R. veterans, likewise honored guests, found especial delight in an exhibit entitled "Lest We Forget", showing some seventeen different types of vehicles in use during the past century.

Fair Had Good Balance

The 1924 Michigan State Fair was preeminently a well balanced exposition. Every one of the 24 departments was well managed and made a most excellent impression upon the visitors. The lay-out being followed in developing the grounds gives due consideration to appearance and convenience and is very pleasing. A definite form of architecture has been adopted in constructing the most modern of buildings. As finances allow and growth makes necessary, new structures are going up on the grounds.

We hesitate to say which was the outstanding feature of the fair, they were all so uniformly good. With the words of the secretary-manager, however, "our live stock exhibits are the best we have ever had", we too will agree. In numbers these exhibits exceeded 3,600 entries, the quality of which was very good indeed. Dairy cattle, horses, beef cattle, sheep, and hogs filled the barns and kept the judges busy. We would not overlook the women's department where exhibits of antiques and needlework and the better babies' contest featured, nor the many educational offerings of the entire fair. The grain, forage crop, and horticultural exhibits occupied their rightful place. The state agricultural department held sway under the grandstand and told the visitors a very good story of the work being done throughout the state by them.

Michigan's Future Farmers Compete

Michigan juniors gathered for fun and combat in the boys' and girls' club department, R. A. Turner, for several years past state club leader, superintendent. In the dairy building you could see their good club work demonstrations, and the exhibits of their handiwork. In the barns and show ring you could see more than 300 head of live stock which they had diligently and painstakingly cared for during the past year. Forty-two boys competed for honors in the dairy cattle judging contest and many participated in the general live stock judging contest. A milking contest for boys, one for girls, and a grand championship contest aroused much excitement and keen, clean rivalry.

Fine Dairy Cattle Show

In total numbers, the dairy cattle exhibits crawled a few ahead of last year. In quality the show was beyond reproach. According to Superintendent A. E. Stevenson the large number of Ayrshires entered was one of the features. Judging took place on Tuesday, Wednesday, and part of Thursday, with Wednesday as the heaviest day. Part of the time four breeds were being judged.

Out-of-state exhibitors took a large share of the blue ribbons. However, Michigan was well represented in the total prize money. In some cases winners of the purple at previous showings were nosed out of these honors. A summary of the number of exhibitors and the number of entries in the different breeds may be of interest to you so is given here:

Breed	No. entries	No. exhibitors
Holstein	157	14
Ayrshire	140	5
Jerseys	129	10
Guernseys	89	8
Brown Swiss	57	6

In the Holstein division it is notable that Hargrove & Arnold in their first appearance at the Michigan fair copped a large number of the blue ribbons. Baynewood Daisy, last year's grand champion Holstein female, was forced to bow to Dorothy Ormsby Piebe. Count Veeman Segis Piebe, 1923 grand champion bull, won first in his class but yielded the purple to Randolph's Whitehurst Colantha Artis Lad.

There were very strong classes among the Jerseys. Three herds stood out above the rest: The Oaklands, Michigan; Elm Hill Farm, Massachusetts; and Rockclyffe Farm, New York. In the Ayrshire division Seitz of Wisconsin was a heavy winner with Shuttleworth Brothers, Michigan, second. Rueping had things pretty much his own way so far as blue and purple ribbons were concerned with the Guernseys, but the Larsen Canning Co., another Wisconsin breeder, sneaked off with a few of them. As for Brown Swiss, Marshall, Michigan; and Hull Bros., of Ohio, were the heaviest winners. A brief summary of the chief blue and purple ribbons may help you:

Exhibitor	Breed	Blues	Purples
Hargrove & Arnold	H	10	4
F. J. Rueping	G	14	5
Elm Hill Farm	J	9	4
The Oaklands	J	6	
Adam Seitz & Sons	A	14	5
L. S. Marshall & Sons	BS	11	4
Hull Bros.	BS	6	2

The blue ribbons were awarded as follows:

Holsteins

Judge: L. V. Wilson, Minnesota.

Bull 3 years old or over—Lambert & Webber, Michigan, on Count Veeman Segis Piebe. Bull 2 years old—A. F. Randolph, Illinois, on Whitehurst Colantha Artis Lad. Senior yearling bull—Hargrove & Arnold, Iowa, on Triune Ormsby Piebe 27th. Junior yearling bull—Hargrove & Arnold on King Piebe 19th. Senior bull calf—E. M. Bayne, Michigan, on King Pontiac Segis Lad De Kol 13th. Junior bull calf—Detroit Creamery Farms on Velvet Pietertje Ormsby De Kol.

Senior and grand champion bull—Whitehurst Colantha Artis Lad. Junior champion bull—Triune Ormsby Piebe 27th.

Cow 4 years old or over—E. M. Bayne on Baynewood Daisy. Cow 3 years old—Hargrove & Arnold on Dorothy Ormsby Piebe. Two-year-old heifer in milk—R. E. Ansted, Ohio, on Monclova Prilly Lucile De Kol. Senior yearling heifer—Hargrove & Arnold on Pietertje Ormsby Piebe Mercedes. Junior yearling heifer—Hargrove & Arnold on Miss De Kol Piebe. Senior heifer calf—Hargrove & Arnold on Triune Piebe Fobes. Junior heifer calf—A. B. Black & Sons, Michigan, on Ardenteenie Dolly.

Senior and grand champion cow—Dorothy Ormsby Piebe. Junior champion—Triune Piebe Fobes.

Exhibitor's herd—R. E. Ansted. Breeder's herd—Hargrove & Arnold. Calf herd, get of sire on get of Triune Ormsby Piebe. Produce of cow on produce of Miss Piebe Fobes, all by Hargrove & Arnold.

Cow 4 years old or over with A. R. O. record above 20 lbs. butterfat in 7 days—John C. Buth, Michigan, on Starlight Veeman Hengerveld. Cow under 4 years with A. R. O. record above 16 lbs. butterfat in 7 days—J. B. Jones, Michigan, on M. B. B. Della. Cow 4 years old or over with A. R. O. record for 305 days or more—E. M. Bayne on Baynewood Daisy.

Guernseys

Judge: John S. Clark, Massachusetts.

Bull 3 years old or over—F. J. Rueping, Wisconsin, on Corium Princess Carrie's Champion. Bull 2 years old—F. J. Rueping on Corium Rose Des Houard's Superb. Senior yearling bull—Larsen Canning Co., Wisconsin, on Rose's Boy of Fern-Dell. Junior yearling bull—F. J. Rueping on Corium Cherub's Edgar. Senior bull calf—F. J. Rueping on Corium Snowdrop's Eric. Junior bull calf—F. J. Rueping on Corium Ladock Prince's Forest.

Senior and grand champion bull—Corium Princess Carrie's Champion. Junior champion—Rose's Boy of Fern-Dell.

Cow 4 years old or over—F. J. Rueping on Polly of Hillsdale. Cow 3 years old—Rueping on Floridale Merry Maid. Heifer 2 years old—Larsen Canning Co. on Bloom Farm Merry Christmas. Senior yearling heifer—Rueping on Gay Girl's Rosamond. Junior yearling heifer—Rueping on Corium Cherub's Dolla's Erma. Senior heifer calf—Larsen Canning Co. on Danny's Maid of Fern-Dell. Junior heifer calf—Portfleet Bros., Michigan, on Bob's Lassie of Greenleaf.

Senior and grand champion cow—Polly of Hillsdale. Junior champion—Gay Girl's Rosamond.

Exhibitor's herd and breeder's herd won by F. J. Rueping. Calf herd—William Larsen Canning Co. Get of sire—Rueping on get of Superb of Edgemoor. Produce of cow—Rueping on produce of Nancy's Golden Snowdrop. Dairy herd—Rueping. Cow 3 years old with A. R. record of 500 lbs. butterfat or over in 365 days—Rueping on Polly of Hillsdale.

Jerseys

Judge: W. W. Yapp, Illinois.

Bull 3 years old or over—Elm Hill Farm, Lee Boyce, Massachusetts on Raleigh's Farmer's Joy. Bull 2 years old—The Oaklands, Michigan, on Blond's Xenia Sultan. Senior yearling bull—Brennan, Fitzgerald & Sinks' Jersey Farm, Michigan, on Goldie's Raleigh. Junior yearling bull—Elm Hill Farm on Xenia's Cowslip Oxford. Senior bull calf—The Oaklands on Oxford Sultan's Imperator. Junior bull calf—A. P. Edison, Michigan, on unnamed entry.

Senior and grand champion bull—Raleigh's Farmer's Joy. Junior champion—Xenia's Cowslip's Oxford.

Cow 4 years old or over—Elm Hill Farm on Queen Plymouth of Lehigh. Cow 3 years old—Rockclyffe Farms, S. Kaplin, New York, on Toffee. Heifer 2 years old—Elm Hill Farm on Spy Girl's Surprise. Senior yearling heifer—Elm Hill Farm on Xenia's Peggy Rosemary. Junior yearling—Elm Hill Farm on Xenia's Dandy Actress. Senior heifer calf—Rockclyffe Farm on Eagle's Grey's Gloria. Junior heifer calf—Elm Hill Farm on Royal Lunas Light.

Senior and grand champion cow—Toffee. Junior champion—Xenia's Dandy Actress.

Exhibitor's herd—Elm Hill Farm. Breeder's herd—The Oaklands. Calf herd—The Oaklands. Get of sire—Elm Hill Farm on get of Xenia's Sultan. Produce of cow—The Oaklands on produce of Brampton Prairie Bessy. Dairy herd—Elm Hill Farm. Cow 3 years old or over with R. O. M. record of 500 lbs. butterfat or over in 365 days—The Oaklands on Brampton Morna Primrose.

Brown Swiss

Judge: O. E. Reed, Michigan.

Bull 3 years old or over—L. S. Marshall & Sons, Michigan, on Prince of Meadow Green. Bull 2 years old—Marshall on Buster Brown of Osseo. Senior yearling bull—Marshall on Usurla's Stasis. Junior yearling bull—The Hull Bros Co., Ohio, on Beaut of Lake View. Senior bull calf—Marshall on Styx Stasis 3rd. Junior bull calf—Hull Bros. on Dale of Lake View 5th.

Senior and grand champion bull—Prince of Meadow Green. Junior champion bull—Usurla's Stasis.

Cow 4 years old or over—Hull Bros. on Swiss Valley Girl 7th. Cow 3 years old or over—Hull Bros. on Nellie F. Beaut. Heifer 2 years old—Marshall on Fairview Styx M. Senior yearling heifer—Marshall on Stasis Rosalind. Junior yearling heifer—Hull Bros. on Militon Emma of Lake View. Senior heifer calf—Jubilee Farm, Illinois, on Jubilee Eldred Bankin. Junior heifer calf—Marshall on Beaut's 2nd Beauty.

Senior and grand champion female—Swiss Valley Girl 7th. Junior champion female—Stasis Rosalind.

Exhibitor's herd, breeder's herd, calf herd, and get of sire on get of Stasis Boy of Sedgely, all won by L. S. Marshall & Sons. Produce of cow—Hull Bros. on produce of Swiss Valley Girl.

Ayrshires

Judge: L. V. Wilson, Minnesota.

Bull 3 years old or over—Adam Seitz & Sons, Wisconsin, on Cavalier's Ping Pong. Bull 2 years old—Shuttleworth Bros., Michigan, on Pride's Boy. Senior yearling bull—Shuttleworth Bros. on Pride's Golden Harry. Junior yearling bull—Seitz on Cavalier's Golden Pippin. Senior bull calf—Shuttleworth Bros. on Norman. Junior bull calf—Seitz on Cavalier's Little Boy Blue.

Senior and grand champion bull—Cavalier's Ping Pong. Junior champion bull—Cavalier's Little Boy Blue.

Cow 4 years old or over—Seitz on South Farm Helen R. Cow 3 years old or over—Seitz on Cavalier's Kathleen. Heifer 2 years old—Seitz on Cavalier's Stuart Queen. Senior yearling heifer—Seitz on Cavalier's Silver Actress II. Junior yearling heifer—Seitz on Cavalier's Glen. Senior heifer calf—Seitz on S. C. Judy. Junior heifer calf—Shuttleworth Bros. on Belle's Gollen Laura.

Senior and grand champion female—South Farm Helen R. Junior champion—Cavalier's Glen.

Exhibitor's herd, breeder's herd, calf herd, get of sire on get of Hower's King of Hearts, and produce of cow on produce of Blackbyre's Lady Walker, all won by Adam Seitz & Sons.

Illustrations of the winners of grand championships will be published in our next week's issue.

Herd Prefix Names

Over 5,000 breeders of Holstein-Friesian cattle in the United States have now adopted prefix names, of which 645 were reserved in 1923. Such a name becomes a trade-mark for the owner, and whenever observed distinguishes the breeder. Another big advantage in a prefix is that it enables the breeder to use all Holstein names in new combinations and makes the selection of names less difficult.

The banyan trees of India are often capable of sheltering thousands of men. One of them in Ceylon throws a shadow at noon over four acres of ground.



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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Favored Sweet Clover Sixty Years Ago

HOARD'S DAIRYMAN:—My father was a great admirer of Hoard's Dairyman and had he lived to read the last dozen copies he would have said, "Well, one of my dreams has come true. Hoard's Dairyman is at last advising the world the value of sweet clover." When you folks in the North called it a weed, he was saying what you say now. He ran a dairy in Bedford County, Virginia, over sixty years ago and made cheese, and clover was the cause of big flows of milk from Shorthorn cows.

We were shipping sweet clover seed in carload lots out of this country when half of the farmers in the corn belt were still calling it a weed. Our experience with it over a long period of time is that as a soil builder it has no equal and that every animal on the farm eats it with avidity. We have lost maybe one-half dozen cows, in thirty years, from bloat, and that would not have occurred had they not been put on it with empty bellies. I can assure you of a case where the cream check was cut from $250 per month to $50 by taking a herd out of sweet clover pasture.

Some people are already saying you are teaching cheap overproduction of milk and butter. It can't be done, if this wonderful U. S. A. will show the public world that milk is just as necessary for the building up of brain and brawn as the finest lubricants are for the finest autos, watches, and other machinery and that oleo and all other junk used as substitutes for milk and butter will gum up and wear out the human system as inferior oils do machinery. Milk in this country is worth nothing and the reason is all the hotels and eating joints in this country educate the people to eat what a first class hog would turn up his nose at if he could get prime milk and butter. You go in any town on the American continent and find a baby crying for milk up to five years old and its mother will fill it up with cheap sweets made sweet by coal tar derivatives, thereby ruining its digestive organs, causing extra doctor bills and medicine, and producing a weakling that will be a curse to the nation instead of a man or woman with magnificent physique.

The oleo fraternity profits by all this bovine tuberculosis propaganda. When veterinary surgeons are men of character who know their business and get well paid for it, you will see a change in business all around.

Alabama. T. O. MUNFORD.

Overproduction

HOARD'S DAIRYMAN:—During the World War period, demand was made for increased production. The patriotic spirit in the hearts of the American producers responded to the call and not a stone was left unturned. The farmers were the most patriotic of all on earth. They increased their force and broke up their last acre; worked 18 hours a day; paid the extreme high wages and then the drop came in the demand for their products, and they could not realize enough to cover the cost of production. When the spring of 1924 dawned upon them they reduced their forces to the minimum, seeded less acres, and what is the result? Demand for all they have, and then some. Never before, in my recollection, has such a demand come with largely increased prices while the products were still in the hands of the producer. Should this not be a lesson to every farmer?

Small acreage, well tilled, means increased profits. Large acreage, well tilled, means bankruptcy. It remains entirely with the farmer himself. No possible legislation can solve the problem. The little farm well tilled will do the work, and this method will bring many that are agriculturally inclined, worthy and well qualified, back to the beautiful country homes.

New York. P. B. CRANE.

Overproduction of Profit

HOARD'S DAIRYMAN:—Just thought I would throw a bouquet at the editor, and shy a brickbat at the fellows who talk overproduction. We like your paper fine, and think it is a good policy on your part to gather public opinion so we may know what the other fellow thinks. I believe facts are worth more to us as farmers than theories, so I will try to give a few in support of my opinion that there is "no such 'animal' as overproduction," quoting from Aug. 15th issue by Jas. H. Birchard.

I milk a few Jersey cows and last August I wanted some bran to feed so went to the mill and asked the price. The miller replied "$1.50". I asked what they paid for wheat and he said $1.25 per cwt. if it was first class. I went to the grocer and asked the price of potatoes. He supposed I had some to sell, so answered, "$2.50 per cwt." I said I wanted a few to eat, so he says, "Oh, 3 lbs. for a quarter." Now last year we had reported an overproduction of both wheat and potatoes.

Now this year we have reported a short crop of both wheat and potatoes. Let us see the effect. Last week I went to the mill for bran and it was $1.40 and I asked what they paid for wheat and they said $1.85 per cwt. I asked at the grocery what potatoes were worth and they said they paid $1.00 per cwt. They sold at $3.00 per cwt. Now just compare those prices. Last fall we sold our apples here at $18.00 to $20.00 a ton and when you bought apples shipped from here to Kansas or Oklahoma they were six to eight cents a pound and retailed in the stores in our own town at three pounds for a quarter. Overproduction was quoted to us all last year as the cause of the low price of apples. Now this year they tell us there is a shortage of apples all over, yet they offer 60 cents per bushel for apples right now. I sold hogs on foot for $3.00 per cwt. and bacon at the same time was 35 cents per pound in the slab.

All these wide ranges of prices are charged to overproduction, but it is overproduction of profits and not of foodstuff.

Colorado. J. A. DALY.

Congratulations

HOARD'S DAIRYMAN:—Hearty congratulations on your courage of publishing the article, "Dozen Reasons Against T. B. Testing". Many will silently thank you even though they do not write.

Please pass my thanks to the writer of the article, also.

Washington. M. R. COLBY.

WAYSIDE MUSINGS

Life—A Great Adventure

JOSEPH S. MORRIS, WISCONSIN

ISN'T it true that life is a great adventure? When you think it through you realize that you have to take most things and do most things in confidence that all will work out all right.

Man is by nature an inquisitive, exploring, pioneering, venturing being. Consider the child who rests today in the security and safety of parental care. Almost in the turning of a thought he will feel stirring within him the call to make adventure. There will come the eternal "Why" of things. Like all of his kind he will have to find an answer to the question stirring his mind.

There are mysteries in this world. I am—I feel within me the dawning of personality.

Whence came I? What is the beginning and the end of all this restless life?

I am surrounded by struggling, aspiring, and perspiring beings. What's it all about?

Compared to the world in which I live I am small indeed and yet I feel that I must do something with my life.

I look around me and see that some through mistakes make shipwreck of their lives. I wonder if I will have the power within me to make my life a success?

And even as we live and grow we must again and again make new adjustments to life, and make new ventures. Two things are requisite: Confidence in the Eternal Goodness that is everywhere in our world, and confidence in one's fellow beings.

We have to make the venture of getting an education in the confidence that men and women will not fool us but will put the facts we need to have within our reach.

We grow up in the confidence that our fathers and mothers will do right by us.

We make friends in the confidence that they will not prove false and hurt us.

We marry in the confidence that love will make it possible for a man and a woman to build a home and get along together.

We rear children in the confidence that if we do the best we know how and try to discover better counsel and advice to give them they will come to be good men and women.

We plant seed and cultivate in the hope that by and by we shall have a crop to reward us for our efforts.

Sometimes we are disappointed. Some things work out differently than we had expected. But, if all the while we have kept open minds and hearts and have not been rebellious we shall find life mellowing with age and we shall come to be that most wonderful of beings "the man or the woman with a contented heart".

And then will come, at the close of it all, what someone has called "the most beautiful adventure of all", when life goes down hill and into the sunset to find itself again at "Dawn" and get the answers to the soul's whisper of "evermore".

Ever Failing or Never Failing Pastures

(Continued from page 237)

plementary crops. The only expense is the seed and the labor of getting this worked into the ground, and liming the soil where it is necessary. If not pastured too close, particularly the first spring, sweet clover will reseed itself each year and remain in the pasture for several years. The seed can be worked into the bluegrass on very rough land if a little judgment and skill are used in doing it.

This means that at least three-fourths of all our tillable pasture land can be reinforced with sweet clover which will practically double the yield of the pasture.

Cow Testers' Conference

Under the leadership of A. J. Cramer, University of Wisconsin, cow testers will gather for a conference at the National Dairy Exposition which opens at Milwaukee, Wis., on Sept. 27. The aim of the conference, according to Mr. Cramer, will be to bring home to the farmers of the nation the need of testing work to determine whether the cow owner is getting full value from his animals. The farmers could increase their income fully 50 per cent without effort, according to Mr. Cramer.

"Weed out the scrub sire, elimate the boarder cow, adopt modern feeding methods, and join a cow testing association," he declares, "and watch the income increase. We propose to show the visitors to the national exposition how this is to be accomplished and what the remarkable results will be, if adopted."

Cow Demonstrations

Prof. M. N. Lawritson of the University of Nebraska, has been selected to take charge of the dairy cattle demonstrations at the National Dairy Exposition, which opens in Milwaukee on Sept. 27.

The cattle demonstrations will be continuous, and will be held in order to show farmers and dairymen how to tell the difference between profitable and nonprofitable animals. Increased production per cow and the elimination of boarder cows is sought through the teachings of the demonstrations. Judging by the farmers will be an adjunct to the cattle demonstrations.

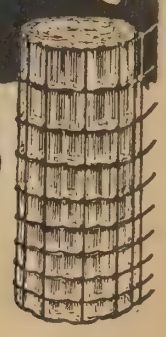
Assisting the Nebraska professor at the exposition will be Prof. Hugh G. Van Pelt, Iowa; William Moscrip, Minnesota; R. S. Hulce, Wisconsin; C. S. Rhode, Illinois, and L. V. Wilson, Minnesota.

A Wisconsin Holstein Record

Wisconsin's new champion Holstein cow for ten months' production of butter as a junior two-year-old is M. B. B. Beauty, owned by Murphy Farms. Her record for this period is 17,598 pounds milk containing 624.25 pounds butterfat, equivalent to 780.3 pounds butter, according to the Advanced Registry Department of The Holstein-Friesian Association of America.—Extension Service, Holstein-Friesian Ass'n. of America.

Aunt Ada's Axioms: It always pays to take time to smile.

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"Super-Zinced" means an *extra heavy and well bonded* coating of zinc applied to wire by our improved process. It marks the successful result of years of effort to produce better and more durable fences. "Super-Zinced" Fences have a rust-resisting armor that will not crack or peel, thus giving long and efficient service.

"Columbia" and "Pittsburgh Perfect" Super Zinc-ed Wire Fences

Our brands include the government approved farm and poultry styles in both hinge-joint and stiff-stay fences, also our very attractive lawn and flower fences. Inclosures made with our "Super-Zinced" fences are permanent improvements. They promote better and more profitable farming, protect crops and live stock, and add to the value of any farm. "Super-Zinced" fences are an investment in good farming.



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Our Lawn and Flower Fences contribute to the beauty of your lawn and effectively bar chickens and all farm animals. Made of heavy wires, "Super-Zinced" of course. Several attractive and distinctive designs.

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Our "Super-Zinced" Wire Fences establish a new standard of fence service and durability. Remember that all of our fences are "Super-Zinced", armored against corrosion by the same high standard of rust protection. Yet so efficiently has our improved process been developed that we are able to sell our fences at *no increase in price* over fences of ordinary galvanizing quality. Be sure to send for "Super-Zinced" Fence Catalogue and Free Book. Use the Coupon below.

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Gentlemen: Please send FREE, the 72-page Farmer's Handy Manual of farm account pages, crop and live stock records, etc., also your "Super-Zinced" Fence Catalogue.

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No. 160 for $1.50, (except in the far west) is a beauty. Burns 35 hours, gives 20% more light, and is wind-, dust-, dirt- and rain-proof.

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1924 Pacific International Livestock Exposition, Portland, Ore., Nov. 1-8

With new pavilion and arena, larger than ever, the 1924 Pacific International Livestock Exposition, at Portland, Ore., Nov. 1-8, will outrival great shows held here before, assembling one of the greatest exhibits of pure bred beef and dairy stock, horses, sheep, hogs and goats ever shown in America. $90,000 premiums. Entries close Oct. 10. Write for Premium Lists to O. M. Plummer, Gen. Mgr., 211 N.W. Bank Bldg., Portland, Ore.

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Try this blanket for ten days at our expense. No obligation. Put it right on one of your animals. See for yourself why our patent adjustment and reinforcing where ordinary blankets tear out make Kow Kloz out-wear others 2 to 1.

Made of Genuine Khaki Duck with rust-proof fasteners. Handy adjustments insure good fit and freedom of movemen Remember, it doesn't cost you a cent to take advantage of this offer. Blanket shipped prepaid. Use it ten days. Send it back if not satisfied. Write today for full information and measure blank so we can send your sample.

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Keep Tab on Your Cows

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.

DAIRY MARKET NEWS

August Prices at Wisconsin Condenseries

(Wisconsin Department of Markets)

The following table gives the prices paid for milk delivered at Wisconsin condenseries during the month of August, except that where prices for the current month are not available the price for the preceding month is given:

Cities	Prices to producers per 100 lbs.	Test of basis of payment	Price paid for 3.5% milk
		%	
Berlin	$1.65	4.0	$1.44½
Bloomer	1.75	4.0	1.53
Brooklyn	2.60	3.5	2.60
Burlington	1.80	4.0	1.60
Chilton	1.65	4.0	1.44½
Clinton	2.60	3.5	2.60
Columbus	1.80	3.5	1.80
Darien	1.90	4.0	1.66
Delavan	1.80	4.0	1.60
East Troy	1.65	3.5	1.65
Elkhorn	1.65	3.5	1.65
Footville	1.60	3.5	1.60
Fox Lake	1.60	3.5	1.60
Genoa City	2.60	3.5	2.60
Greenville	1.80	4.0	1.57½
Jefferson	1.50	3.5	1.50
Johnson Creek	1.50	3.5	1.50
Juneau	1.80	4.0	1.60
Lake Mills	1.40	3.5	1.40
Manawa	1.80	4.0	1.57½
Markesan	1.60	3.5	1.60
Marshall	2.00	3.5	2.00
Mayville	1.94	4.5	1.71½
Merton	1.50	3.5	1.50
Monroe	1.80	4.0	1.57½
Monticello	1.80	4.0	1.57½
Neillsville	1.68	4.0	1.47
New London	1.80	4.0	1.57½
North Prairie	1.60	3.5	1.60
Oconomowoc	1.50	3.5	1.50
Orfordville	1.80	4.0	1.57½
Osseo	1.80	4.0	1.57½
Richland Center	1.65	4.0	1.44½
Sharon	1.90	4.0	1.66
Stoughton	1.90	4.0	1.66
Sullivan	1.50	3.5	1.50
Walworth	1.80	3.5	1.80
Waukesha	1.50	3.5	1.50
Waupun	1.60	3.5	1.60
West Bend	1.94	4.0	1.69
Weyauwega	1.80	4.0	1.57½
*Albany	1.60	3.5	1.60
*Belleville	1.60	3.5	1.60
*Denmark	1.70	3.6	1.66
*Fond du Lac	1.72	3.5	1.72
*Hartford	1.60	3.5	1.60
*Hillsboro	1.60	3.6	1.56
*Lodi	1.92	4.0	1.73
*Menomonie	1.92	4.0	1.73
*Middleton	1.55	3.5	1.55
*New Glarus	1.60	3.5	1.60
*Oostburg	1.70	3.6	1.66
*Racine	2.57	3.5	2.57
*Reedsburg	1.80	4.0	1.57½
*Sawyer	1.60	3.5	1.60
*Sparta	2.00	4.0	1.75
*Valders	1.80	4.0	1.57½
*Watertown	1.50	3.5	1.50

*Price for July.

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were firm during week ending Sept. 6th. Movement of goods active at prices representing fair margins to dealers. Anticipated demand for September made cheese together with usual tendency of prices during month appear as supporting influences.

The average wholesale prices on American cheese, style Twins, for the week ending Sept. 6, 1924, for the corresponding week a year ago and for the previous week were as follows:

	Ave. for the week ending Sept. 6 1924	Aug. 30 1924	Sept. 6 1923
	Cts.	Cts.	Cts.
New York	20.7	20.7	25.8
Chicago	19.1	18.8	23.6
Boston	21.2	21.2	26.7
San Francisco	18.9	19.0	26.4
Wisconsin Boards	18.8	18.6	24.5

The receipts of cheese at these markets were 4,318,540 lbs. for the week as compared with 4,368,757 lbs. last week and 4,246,753 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets continued unsettled during the week ending September 6. Trend of prices uncertain and subject to influences of immediate supply and demand. Into storage movement slower as operators were less willing to assume resulting risk. Street stocks were heavier. Production is still running heavy. Firm foreign markets permit small export business.

The average wholesale prices on 92-score butter for the week ending Sept. 6, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Sept. 6 1924	Aug. 30 1924	Sept. 6 1923
	Cts.	Cts.	Cts.
New York	38.1	38.5	45.0
Chicago	37.1	36.8	44.9
Philadelphia	39.2	39.2	46.0
Boston	38.8	39.0	45.2
San Francisco	40.1	40.7	47.4

The receipts of butter at these markets were 13,813,177 lbs. for the week as compared with 15,531,307 lbs. for last week and 11,423,505 lbs. a year ago.

Wisconsin July Butter

(Wisconsin Department of Markets)

The following is an average report of the operations of 140 co-operative creameries in Wisconsin for the month of July, 1924:

No. of creameries	Price paid for fat	Ave. price rec'd for butter	Ave. overrun	Ave. am't fat rec'd
	Cts.	Cts.	%	Lbs.
3	45	38.9	22.4	62,459
10	44	37.8	23.3	61,128
22	43	37.6	22.2	41,823
34	42	37.2	23.7	29,531
25	41	37.0	22.6	41,844
24	40	36.7	23.2	25,960
7	39	36.6	21.9	17,041
5	38	37.7	21.9	36,417
8	37	35.6	18.5	11,898
2	36	35.9	21.0	30,307
140				35,845

Carload Prices of Hay, Straw, and Feed, Sept. 6, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	29 00	29 00	....	.....	20 75	25 00	26 00	24 25	20 00	26 00	19 50	25 50	....	16 00	
No. 1 Clover, mixed	20 50	.....	.....	18 00	17 25	....	....	....	18 00	18 00	17 50	.. .	.....	15 50	.....
No. 1 Clover	....	.....	.....	.....	.....	.....	.....	.....	19 00	15 00	...	.....	.....	17 00	.....
No. 1 Alfalfa	.....	30 00	.....	.....		31 00	29 00	27 25	26 00	24 00	23 00	.....	17 00	19 50	27 00
Standard Alfalfa	.....	26 50		.....		24 00	27 00	24 70	...	20 00	19 00	.....	14 50	17 75	26 00
No. 2 Alfalfa	...	25 50	.....	.....	.....	21 00	.....	21 50	24 00	16 00	15 00	....	12 50	15 50	25 00
Oat Straw	13 00	14 50	14 00	12 00	13 50	....	.....	.....	12 00	12 00	9 00	.....	8 50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	.....	.....	31 00	29 50	31 00	32 50	.....	.....	28 50	.....	22 50	.....			.....
Soft Winter	.....	.....	33 00	31 00	33 50	32 50	.....	.....	29 50	.....	.....	26 00		23 00	35 00
Hard Winter	.....	.....	32 00	29 50	...	32 00	.....	26 50	28 50	.....		25 00	22 75	23 00	.....
Wheat Middlings	.....	.....													
Spring (Standard)	.....	.....	33 50	32 50	33 50	38 00	.....	.....	32 50	....	25 00	.....	.....	.....	.....
Soft Winter	.....	.....	39 50	35 00	33 00	39 00	.....	.....	36 00	.....	.....	.....	.....	29 00	44 00
Hard Winter	.....	.....	... .	36 50	.....	36 00	.....	.....	36 00	.....	.....	.....	28 50	29 00	.....
Wheat Millrun	.....	.....	.....	.....	.....	35 00	.....	.....	.....	.....	26 50	.....	.....	26 00	34 00
Rye Middlings	.....	.....	.....	30 50	.....	.....	.....	.....	.....	.....	24 00	.....	.....	.....	.....
High Protein Meals	...														
Linseed	....	.....	52 00	50 75	.....	.....	.....	.....	48 00	.....	43 00	46 00	49 00	48 00	49 00
Cottonseed (41%)	.....	.....	48 25	49 00	.....	.....	.....	41 00	46 00	.....	46 50	43 50	.....	.....	.....
Cottonseed (36%)	.....	.....	45 00	45 00	.....	38 50	.....	38 00	43 00	.....	44 00	41 00	.....	.....	.....
Tankage (60%)	....	.....	.....	.....	.....	.....	.....	.....	.....	60 00	60 00	60 00	60 00	60 00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	30 00	.....	.....	27 00	28 50	.....	.....	26 00	26 00	23 00	32 00
Gluten feed	.....	.....	48 90	44 70	45 00	.....	.....	.....	43 70	.....					.....
Hominy feed (white)	.....	.....	47 00	.....	47 00	45 00	.....	.....	45 00	.....	43 90	41 00	40 00	.....	.....
Hominy feed (y'llow)	...	.....	45 50	.....	46 00	45 00	.....	.....	45 00	.....	.....	.....	40 00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43 00	.....	41 00	.....	.....	.....	46 00
Dried Beet pulp	.....	.....	.....	.....	40 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	37 00

Milwaukee August Prices

The Milwaukee Co-operative Milk Producers announce the following prices for the month of August:

For the portion sold as fluid milk $2.85 per cwt. for 3.5 per cent milk; and for the portion manufactured, $1.38 per cwt. Four cents added or subtracted for each one-tenth of one per cent variation. Seventy per cent of the total receipts was sold as fluid.

CHICAGO, Sept. 15—The butter market today was steady on all grades with the best demand reported on the medium and lower scores. Considerable business was transacted early this morning on 92-score butter at a half-cent advance over Saturday's price. The centralized car market was easy, with trading dull.

Fresh butter—92-score, 37½c; 91-score, 36½c; 90-score, 35½c; 89-score, 34½c; 88-score, 34c; 87-score, 33c; 86-score, 32c. Centralized carlots—90-score, 36¼c; 89-score, 34½c; 88-score, 33½c.

FOND DU LAC, Wis., Sept. 12—Average cheese prices (majority of sales), f. o. b. shipping point: Twins, 19½c; single Daisies, 20¼c; double Daisies, 19¾c; Longhorns, 20½c; square prints, 21¾c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Sept. 13: Single Daisies, 19c. On Farmers' Call Board Sept. 12: Single Daisies, 20c; Longhorns, 20¾c; square prints, 21⅜c.

MILWAUKEE, Sept. 15—Butter—Creamery, extra, tubs, 37½c; standards, 36½c; extra firsts, tubs, 34@35c; firsts, 32@33c; seconds, 30@31c.

Cheese—American full cream, Twins, 19½@20c; Young Americas, 20@20½c; Longhorns, 20@20½c; Daisies, single, 20@20½c; squares, 22@22½c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

NEW YORK, Sept. 15—Butter—Steady; receipts, 6,105; creamery, higher than extras, 38½@39c; creamery, extras (92-score), 38c; creamery, firsts (88- to 91-score), 35@37¾c; packing stock, current make, No. 2, 27½c.

Cattle Entries at 1924 National Dairy Show

State	Holstein	Guernsey	Jersey	Ayrshire	Brown Swiss	Total
Wisconsin	177	141	26	58	27	449
Iowa	36	44	13			93
Minnesota	43	26			15	84
Ontario, Can.	13		24	34		71
Massachusetts			11	41		52
Ohio				13	19	32
Quebec, Can.				31		31
North Dakota		15	15			30
New York	2	25	1			28
Michigan	11				16	27
New Jersey			27			27
Washington	25					25
Illinois	1	2	5		15	23
Pennsylvania				22		22
Connecticut			21			21
Indiana					14	14
Nebraska	12					12
Colorado	12					12
Georgia			11			11
South Dakota	6		3			9
Kentucky			1			1
Maryland		1				1
Totals—22	338	254	158	199	106	1075

Boys and girls from 17 states will exhibit 350 calves.

There will be on exhibition and sale 180 grade record cows.

What Shall I Name My Farm?

HOARD'S DAIRYMAN:—In this article I propose to keep away from generalities, and to offer definite help and suggestions for the naming of your farm home. W. A. Sumner says there are only a dozen requisites for a name for your farm. Mr. Sumner lists them thus: simple, dignified, easy to pronounce, easy to remember, distinctive, euphonious, appropriate to the farm, modest, easy to read, short, bring up a mental picture (visualize the farm or its products), and original.

I propose to start with number seven, "appropriate to the farm", and twelve, "original", and the other ten points will fall into place almost automatically you will find. Has your land any marked physical characteristic that would lend itself to becoming a name for your farm? "Hill", "valley", "wood", and similar names have all been used time without number. However, we can find similar meanings in words of the Indian language, words which are at once musical and unique.

How do you like Aspatock, meaning "high land"? Or Cadoma, "hidden", for the valley farm? Cohasset (place of the pines) and Dockmachie (maple-leafed viburnum) are lovely if one's farm is conspicuous for these growing things. Tekemah means "big cottonwood". Suitable for some one farm in a hilly region is Katahdin, "highest place". And for the prairie farmer is Tuscola, "a level place", or Tintonwan, "prairie dwellers".

For those with streams and rivers flowing through the fields and wooded land are Kampesha, "bright and shining"; Minneota, "plenty of water"; Sappomah, "deep waters"; Tioga, "at the forks"; and Watonwan, "plenty of fish".

Is your farm situated on a road which curves many times past your acres? Then what would you think of Washkama, "the road is crooked"? These Indian names stand alone when used. They need not be followed by the word farm, acres, home, or similar nouns. Some names, however, need appendages, and a few are suggested here: bluff, brook, dale, fields, forest, gate, glen, heights, hollow, place, and wood.

Name beginnings may be derived from a variety of sources. They may come from the name of the farm owner, from the location of the property, from some of the outstanding physical characteristics of the place, or from the chief work or product of the land. The average American farmer seems to be averse to having his name blazoned on barn and gate post, so he chooses some other thing or feature.

The Lindens is the name of a charming old country home which has been in the hands of one family for generation after generation. The really remarkable grove of linden trees on the place is its most outstanding characteristic visible to the eye, and as the produce of the farm is not marketed, there would be little value in selecting a name which could be utilized for business purposes. Cottonwood Acres is another such name.

Fox Lair has been chosen as the name of a fox farm in a northern state, while Bird Ridge Farm has been selected for a place which stands high above the neighboring country and to which bird lovers from a wide area flock at all times of the year to study the specimens which come there with the changing seasons.

Deep is a good name beginning. It can be made into Deep Woods, Deep Meadow, Deep Shade, or Deep Water, according to your own farm's possibilities and your own taste. Fair is another beginning which may be made into many things. So are Great, Green, High, Lone, Many (Many Shadows, Many Waters, Many Breezes, etc.), Sunny, and Tall. These, however, are only a few.

Then, should you desire to incorporate the idea of your business into your name, there are the words dairy, stock, grain, etc., which may be used. But why not do it more suitably? For instance, there is the lovely Indian word Modamin, meaning "corn". Sarnia tells the whole story to Guernsey breeders, while The Black and White Farm is equally expressive.

These are only suggestions. Just think of the things that are peculiar to your farm alone, select the one that you desire to feature, and behold, you have the only name for your farm, and a name which cannot well belong to any other farmer.

Illinois. FRANCES M. HUGHES.

Jersey Cattle Notes

Week ending Aug. 29, 1924:

Number of animals registered: Bulls 232, cows 727, total 959. Number of transfers recorded: Bulls 239, cows 679, total 918.

The Indiana State Fair

(Continued from page 248)

C. J. & W. A. Connell of Wisconsin. This bull, Defender of Waddington, is a very straight lined two-year-old of excellent character, which gave him the senior and grand championship.

Gayoso Farms made a very strong show in the remainder of the bull classes by winning first and fourth in the yearling classes; first, second, and fourth in senior calves; and first in junior calves.

The winning aged cow, Sepasoot Pearl, was shown by George & Mackay. She was a remarkably good cow with true dairy type, a capacious udder, and a strength of make-up that made her a real favorite and a popular choice for the senior and grand champion honors.

Gayoso Farm won both first and second in the three-year-old class as well as first in two-year-old heifers. Goodhand Kingston & Son brought out the junior champion female in the winning junior yearling, Muskego Colleen. A daughter of Itchen May King, from the Fox herd of Waukesha County, won the senior heifer calf class, while the Sweets Springs herd won the junior calf class. Professor L. H. Fairchild of Purdue University tied the ribbons.

Ayrshires

Adam Seitz & Sons of Wisconsin had things about their own way in the Ayrshire show. All firsts and championships were won by them with the exception of the yearling bull class that went to Walter J. Barnett of Indiana.

Cavalier's Sherry Redman, with his true dairy type, won the two-year-old class and went on through to senior and grand champion honors. Lucindy of Spring Castle 4th won the aged cow class and was made grand champion female. She is a good cow with capacious middle and plenty of udder of the proper shape. Professor W. W. Yapp of the University of Illinois made the awards.



ADELINA'S SULTAN, GRAND CHAMPION JERSEY BULL AT INDIANA STATE FAIR
OWNED BY PEBBLEHILL PLANTATION, GEORGIA

Believes in Tuberculin Test

HOARD'S DAIRYMAN:—I feel I must reply to Illinois Dairyman in regard to his "Dozen Reasons Against T. B. Testing."

His first "reason" is that scientists disagree as to whether bovine tuberculosis can be transmitted to humans through raw milk. Scientists disagree about many things; for instance, some say tuberculosis is hereditary while others deny this flatly, claiming it is a contagious disease transmitted by the sputum of the victim, by handkerchief in use by same, dishes improperly sterilized, and by flies. This may be propaganda but I dare say our friend would not eat after a T. B. patient. Bovine T. B. affects the bones of humans and makes its most vicious attack on infants whose sole food is milk. The very thoughts of feeding germs to helpless babies dependent upon our care should make any red-blooded American dairyman have his cows tested.

Available statistics prove that 7% of the bone tuberculosis in the United States is directly traceable to tubercular milk fed to children. Everyone knows that raw milk from a clean herd is preferred to pasteurized milk for infant feeding. It is also a known fact among dairy people that pasteurization never makes good milk out of bad. More stress should be laid on producing clean milk in the first place.

Another of the "Dozen Reasons" is this: He must fence his stream and double fence between his neighbor and himself to keep his cows from nosing a bunch of untested steers. Are Holsteins addicted to the habit of nosing or is it a trait among Illinois cattle? I have never noticed cows nosing each other across fences here in Virginia. After six consecutive years of testing without a reactor in a neighborhood of untested cattle, I would say that infection from chance meeting with untested cattle is negligible. It is the daily association with them which causes trouble. The man who "sneaks" on his agreement with the government by bringing an untested animal into his herd usually pays when he makes his yearly test.

Now let me tell you what hurts most about T. B. eradication. Here in Fairfax Co., Virginia, Washington, D. C., is our market. It demands milk from T. B. tested cows; no other can be shipped to this market. We get two free tests from the government. After we are on the accredited herd list, it is necessary to pay a veterinarian $15 to make a yearly test and when we buy an untested cow we have to pay $15 to get her tested or run the risk and sneak as I mentioned above.

We dairymen are working on a plan now to stop this extortion which is: Each cattle owner will have free testing until his cows are clean. This is to be compulsory, then when a dairyman buys a cow from a neighbor he can do so with reasonable safety. Of course I know it means an outlay of money for the county but the dairy industry is deserving of some consideration as well as other enterprises. Why employ a health officer to look after our children of school age after we have given 7% of them bone tuberculosis in their infancy?

I believe in the test as firmly as I do in Hoard's Dairy gospel and I would not drink milk from untested cows or feed it to my children.

Virginia. CUBA GRAYSON CURTICE.

To Honor Professor Farrington

A movement begun about a year ago to honor Professor Farrington of Madison, Wisconsin, will culminate in a banquet to be held in Milwaukee Wednesday, October 1st, at the time of the National Dairy Show.

In recognition of the good work done by Professor Farrington during the thirty years that he has been actively connected with the University of Wisconsin as head of the dairy department, his many friends and former students will present his portrait to the College of Agriculture at this banquet. This painting is by the noted artist, Arvid Nyholm, of Chicago.

"Well, Pat, do the twins make much noise nights?"

"Praise be to Hivin! Sure, each wan cries so loud yez can't hear the ither wan."—From Everybody's Magazine.

When the Shipper Will Pay More

Most consumers of butter and eggs are willing to pay in proportion to quality.

That is why selling according to grade is a mighty important matter with you who produce such goods.

The way to make more money is to get the top price from the shipper for your best run, sell the other grades for what they are, and not try to bolster up poor grade stuff by putting it in with the better grade.

Instead of lifting the poor up, you pull the good down.

Comply with Grading Rules And Get the Higher Price

There is a market for eggs and cream of all grades, but the way to make money as a producer is to separate and sell according to quality and not "jumble" them up and try to sell them in one lot.

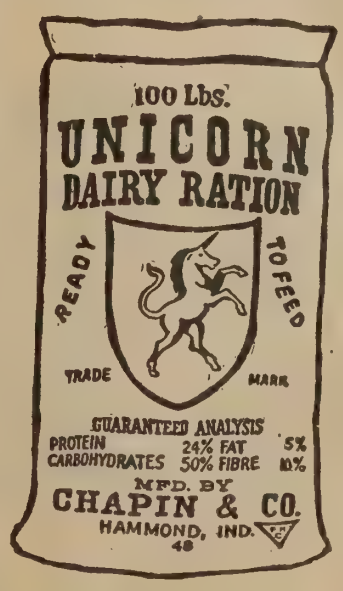
If you offer goods that will stand the test, and insist upon being paid accordingly, you will make more money. Producers must be leaders in this grading and standardizing movement, for they are the first to profit.

This is the firm belief of the Chicago Mercantile Exchange—which, as a distributing organization, with unlimited trading opportunities, has its fingers on the pulse of the world's markets all the time.

The Chicago Mercantile Exchange

LA SALLE ST. at LAKE ST.

The Market Place for Butter and Eggs

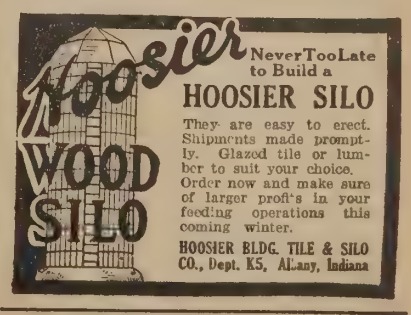


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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Where a Smile Is a Trademark

Miles of smiles are found on the faces of happy boys at the Norris Farm Camp in Waukesha County, Wisconsin. From 75 to 100 city boys have thrown away their grouches and found in farm life many pleasures and much profitable experience.

In the winter time they live in the fine dormitories on the farms and go to their own school. In a big barn-like structure on the farm is the new gymnasium. Two years ago the boys had their first basket-ball team and most of the members had never played this sport before. They were very successful and won seven out of twelve games, competing with outside teams from surrounding communities.

In the summer time the boys transfer their activities to camp life. About one mile from the main buildings, on the banks of the Fox river sheltered by forty acres of wild woods, is located this summer camp. A semi-circle of fourteen barracks and a big dining room, all facing an open camp-fire place and looking out over the river where half naked boys flounder in the cool waters undisturbed by intruders, is the picture of country contentment which we saw on our visit to this unique farm one day last summer. A leader for every barrack and a camp doctor makes life a safe and sane one for the boys. In the cool woods surrounding the camp they study wood lore and nature. Their summer camp lasts from the first of June until September 1st.

There are 573 acres of farm lands to be given attention and the boys all have their part to take in the farm work. Some raise fruit, others are interested in gardens and still others in live stock. In 1917 Niel Norris, a young man who wanted to do unto others as he would that they should do unto him, established a summer camp for needy city boys; some were orphans, others had poor home training and needed to be polished off. The camp was so successful that it was turned into a year-round proposition. Now boys come there from all parts of the country.

Rural life is used to make these boys better citizens and religion is not neglected. They have their own Sunday school classes and the boys themselves teach the classes.

The Norris Farms' calf club has been going four years and the boys have won many prizes. They get together for meetings and talk things over. They take a great deal of pride in their calves and each year exhibit them at the Waukesha County calf round-up and the Wisconsin State Fair. Although the boys do not own the calves, they are given entire charge of them and they feed, clip, scrub, blanket, and polish their calves, and show them with a great deal of pride.



GROWING BOYS AND CALVES ARE A GOOD COMBINATION

This picture was taken a year ago at the Norris Farm Camp. The boys from left to right are: Mitchell Karboski, Percy MacFarlane, Norman Masters, Martin Hansen, Carl Bublitz, Clarence Rohde.



MEMBER THE OLE SWIMMIN' HOLE?

Here is where the Norris Farm Camp boys cool off in the good old summer time.

Here are the winnings that these boys made this past year: At the 1924 Waukesha County Round-up, on bull calves, Mitchell Karboski won first prize; Joe McLay, second; Mathew Munger, sixth. In the heifer class Mathew Munger, second; Herbert Smith, fourth; Mitchell Karboski, eighth; Melvin Steber, ninth; Percy MacFarlane, tenth; Steven Cinky, thirteenth. Grade heifers, Percy MacFarlane, seventh. In the Showmen's Contest Joe McLay won third and Steven Cinky, fifth. Since there are about 80 head of registered Holsteins in the herds of the Norris Farms, the boys are all Holstein members.

Two years ago Joe McLay was declared the best calf club member at Norris Farm but this past year Percy MacFarlane won the honors. Percy won a beautiful silver trophy in recognition of the fact that he had been declared the best calf club member in Waukesha County.

Philosopher Phil Says

Once there was a boy who owned a calf and belonged to a calf club. Attending high school in a nearby town made it necessary for him to be away from home at an hour when his calf should be fed. He knew that as a calf club member he should take the entire care of his calf. He wondered how it could be arranged that he might be responsible for that calf getting its meal. After a little while he devised this scheme:

Over his calf's feed box he arranged a chute. At the top of the chute was the calf's meal. He took an alarm clock and set it for the hour at which his calf should be fed. Then he fixed this clock in such a way that when the alarm went off it would pull a string and open the chute. The feed would then go down in front of the calf. Through originality and resourcefulness he overcame one of his immediate problems as a calf club member and could honestly say that he had taken the entire care of his calf.

Where the Tall Corn Grows

Iowa boasts of one of the biggest and best 4-H club camps at her state fair of any in the Union. And she has a right to. During the last week in August more than 1,200 boys and girls of the Hawkeye state participated in making good this boast.

Here is the way the live stock exhibits lined up—about 600 baby beeves, making the biggest show of its kind in the world, 500 swine, almost 100 sheep, and about 560 birds in the poultry show. P. C. Taff is director of Iowa club work.

Besides this wonderful showing of exhibits there was keen competition among one hundred thirty-six teams demonstrating almost every imaginable sort of home economics and agricultural project. Demonstration team work among Iowa farm girls has grown tremendously. In 1920 there were only 19 girls' teams demonstrating. This year just 106 teams competed.

To further prove her leadership in club work Iowa points to the following facts: that the first Adolescent Health Contest for 4-H club boys and girls in the United States was held in Iowa. That the first Rural Music Memory Contest was held among the 4-H club girls of Iowa. That the first state campaign for better shoes among farm girls was put on in Iowa among club girls. That Iowa has the largest pig club show in the United States. That this state is the first to publish and print a daily paper for the club boys and girls at the state fair. That Iowa operates the largest dining hall for club boys and girls of any state.

The club newspaper was published at the state fair camp for the first time this year. G. L. Noble, secretary of the National Committee on Boys' and Girls' Club Work, was editor-in-chief. It was a dandy little four-page sheet three columns wide. The printing and engraving were done at a down town office free of charge. There were five issues during the week. In a contest for the best name for the publication "The 4-H Club News" was selected.

Nearly eighty boys and girls were entered in the fourth annual health contest. Practically all of the entrants were good physical specimens. Ferrill Liscomb, 14, and a sophomore in high school was finally chosen as the winning boy. Early to bed and early to rise is one of Ferrill's health rules. He eats bacon and eggs for breakfast and when asked if he drank much milk he replied, "Not much, only a quart a day." Ferrill did a man's work on the farm this summer. He likes to swim, hunt, and ride horseback.



FERRILL LISCOMB



DORIS POORBAUGH

Doris Poorbaugh, the winning girl, is seventeen and a senior in high school. Her bed hour is 8:30 and rising hour between 6:30 and seven. She drinks considerable milk in the winter time and is fond of potatoes. According to the physicians her snappy eyes scored 100 per cent and her ears and feet were also perfect.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

We are now on our eleventh lesson on sweet clover pasture. We have learned of the many values of this crop—as a milk producer, as a labor and land saver, and as a soil builder. Mr. Fraser has recently told us that there are two requirements in the successful growing of six months pasture—lime and inoculation. He has pointed out that the best variety to grow is biennial white sweet clover. In last week's issue of Hoard's Dairyman, Sept. 12, he tells us how to get the most out of sweet clover pasture.

Give two rules for success with sweet clover pasture. (1) Let the clover get a good start the first year—it should be 12 to 15 inches high before pasturing. This will make it possible for the plants to store up more food and get an earlier and thriftier start the next spring. (2) Turn the stock on early in the spring when the plants are no more than four or five inches high. The plants are most palatable before they have become two feet high.

How can you keep the crop down the second year? Pasture enough cows on it. Three-fourths of an acre per head is all and sometimes more

than can be economically used for pasture the second year.

Name a good crop rotation with sweet clover. Corn, corn, small grain seeded with sweet clover, and sweet clover pasture. For a three-year rotation omit one year of corn.

Give a good practice in sowing sweet clover for pasture. Sow a double acreage, pasture the crop in the fall, and plow under half. This gives the pasture crop a chance to get a good start in the fall. The half that is plowed under is an excellent soil improver.

What is a biennial? A biennial is a plant that will not die at the end of the first year. It does not live longer than two years.

Tell how Mr. Harter made a success with Jerseys. For years this Ohio farmer found his fight against the mortgage an uphill one. He was urged to test the production of his cows. He did so, and discovered that of the five cows he was testing all were in the Register of Merit class, three were gold medal cows, and one a state champion. (See article "Good Results from Hard Work").

If you change milkers on a cow will that change her butterfat production? In tests conducted at the Maryland Dairy Experiment Station the Dairy Bureau of the U. S. Department of Agriculture it was found that there was a slight advantage in favor of one person milking continuously. Where one person milked continuously cows produced as much as 0.6 per cent more butterfat than when milkers were changed. (See article "The Proving Ground of Dairy Farmers").

Will a cow give more butterfat confined in a box stall than in a stanchion? Yes, cows in box stalls gave some more milk containing a little more butterfat, and they gained some in body weight, but the extra expense of care does not make it profitable.

Junior Letters

A Junior Missionary

Hoard's Dairyman Juniors:—I enjoy being a member of your jolly junior club very much. I received my creed, badge, and button. I like my button because it has my favorite cow's head on it, Holstein. Of course I like my creed and badge, too. I wear my badge and button very often. All my friends think they are very nice, and ask me where I got them. Several of my friends have promised to join the jolly club soon.

We have two large horses, Mack and Prince. I pride Prince most, becaues he is the gentlest. He will eat candy, sugar, and apples out of my hand and will follow me all over the barnyard for a piece of candy. We are starting a small dairy. We have our milk house finished and the workmen are going to build a new modern barn about the first of next month, using the latest dairy barn equipment. We have about 25 Holstein cows and about 30 or more calves, Holstein, Guernsey, Jersey, and mixed grades. My father is going to sell all but the Holsteins as he likes them best. I have one registered Holstein calf 17 months old. Most every one thinks she is about two and a half, she is so large. I also have a grade Holstein 15 months old that is nearly as large but not half as pretty. I am very much interetsed in dairy work. I am going to try to get the better dairying "gospel" started by getting all the Hoard's Dairyman subscriptions I can in my community. I guess you juniors think this letter is from a boy. But it is not. It is from a real girl, although I wear knickers most all the time at home. I am 16 years old now.

I will be glad to answer all letters the juniors wish to write me. My address is Canton, North Carolina, R. F. D. No. 2.

Minnie Morgan.

Stripping Tobacco in Wisconsin

Hoard's Dairyman Juniors:—I received your letter asking me to tell about stripping tobacco. We take it down from the poles when it is cured. I suppose you know it has to be in the shed so it will cure. We take the tobacco from the laths. Then we strip the leaves off the stalk one by one. We must be careful to get the leaves even. We have a box ready to bale it in. We have one long box and one six inches shorter. We put three strings in the box, one on each side and one in the middle. We then put a paper on top of the strings. The best grade we put in the largest box. The one that is torn or damaged in any way we put in the short box. When the box is full we press it by taking a board the size of the box, we put it on the box, then two of us get on and press it. That is fun. We press it twice. Then we tie the bale. Each bale weighs about 60 lbs. Sometimes we make 3 grades.

Wisconsin. Delia Trissoni.

A California Dairy Maid

Hoard's Dairyman Juniors:—My picture was taken in February. The almond tree is the background. As you can see it was in blossom. The calf was 3 months old then. Her mother held the state record for some time.

We have 50 acres. On it we have grapes, walnuts, figs, plums, quince, pears, apples, apricots, pomegranates, persimmons, berries,



IN THE SHADE OF THE BLOSSOMING ALMOND TREE ARE MARIE CONANT AND HER CALF

oranges, beans, and alfalfa. Then we have 8 cows, 3 heifer calves, 3 bull calves, pigs, chickens, cats, horses, and rabbits. The rabbits belong to my older sister.

My older sister and I were home for ten days doing the chores, milking and a little other work, while the rest of the family enjoyed a vacation at Richardson Springs. We will go to Big Basin with some of the rest later on. There are ten in our family, eight children; the youngest was 3 in June.

As my letter is getting long I think I will close. Wishing all the juniors all good luck. If any of the juniors want to write to me I will answer their letters promptly. My address is R. R., Box 231, Modesto, Calif.

Maria Conant.

Orpha Writes Another Poem

Hoard's Dairyman Juniors:—We make butter all year round. Some weeks we make over a hundred pounds. We are now milking 20 cows. We have 28 head of cattle.

There are a lot of birds here now. Oh! how they do sing. No one can help but be happy and let all care fly to the four winds, when they hear the robins say "cheerup, cheerup". All of the other birds sing lovely, beautiful songs, too.

I am going to send another poem which I hope will be liked as well as my other one was.

AT SUNSET

The West is all a fiery red,
With a touch of yellow and gold,
It's time for the children to be in bed,
And have bed-time stories told.

The birds are singing their evening song,
Then flying away to rest;
And the sun is shedding its last bright rays,
Out in the fiery West.

The evening twilight's coming on,
And the grass is wet with dew;
And there is a lovely peace over all,
That is sure to comfort you.

New York. Orpha Williams.

Where the Tall Corn Grows

Hoard's Dairyman Juniors:—When Hoard's Dairyman comes to my house I am always anxious to sink my mind deep into the Junior Department and read the letters from the junior editor and juniors. I am satisfied that we have never taken any paper that had a boys' and girls' section that could ever compete with Hoard's Dairyman. And I will say that this is one family that likes good reading.

I live in the state where "The Tall Corn Grows" four miles from town on a half section farm. I am one of a family of eight children.

Iowa. Clifford W. Withers.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

ATWATER KENT

RADIO

BACK of Atwater Kent Radio there is a tremendous factory with laboratory and manufacturing facilities that are not surpassed in the whole world—

—there is the spirit and guiding impulse of master workmanship—

—there is a nation-wide reputation for precision—and a recognition of the name "Atwater Kent" as a standard of excellence—

—there is the accumulated experience of more than a quarter of a century in the manufacture of scientific electrical instruments—

It is these qualities and high standards that have produced leadership for Atwater Kent Radio;—and have made it what many consider perfection in radio construction.

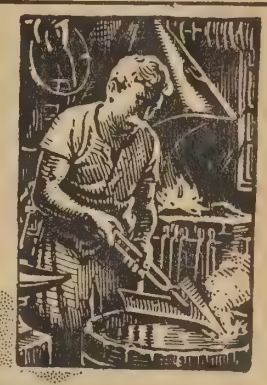
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THINK OF WHAT IS BACK OF IT



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that's "Tempered!" to sturdier duty

THE Wadhams Tempering process preserves the full, sturdy oiliness of crude petroleum's richest portions. The benefits are certain—definite. Tests prove that *in use* Tempered holds from 10 to 36% higher viscosity than other high grade oils. And that Tempered lasts longer. And that it holds down carbon troubles to the minimum.

Wadhams Tempered Motor Oil

deserves to be your single choice. Using it steadily will mean longer life for your motor car. It will mean lower upkeep costs on your tractor. Your nearby dealer has the correct weight for every make. When you buy oil—look for the red disc sign.

WADHAMS OIL CO., MILWAUKEE

Established 1879 S. S. CRAMER, President.



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Waupaca County high grade Holstein and Guernsey cows and heifers for sale in carload lots or will assist you in buying. JENNINGS FARMS, New London, Wisconsin. 5-7

Springers—8 second calf, grade Holsteins, bred to a 930.80 lb. junior two year old record, show bull. Also registered bull and heifer calves from above sire. R. L. ANDERSON, Whitewater, Wis. 7-4

For Sale—Carload good Holstein springing heifers. E. E. LEWIS, R. 3, Racine, Wis. 8-3

Twelve Registered Holstein Cows for sale. A. NEILSON, R. 2, Waukesha, Wis. 9-2

Holstein Springers and fresh cows. W. STRAUSS, R. 5, Watertown, Wis. 9-4

Holstein Cows—Heifer calves, 200 head. Sacrifice prices. From heavy milk strain. WERNER FARM, Kenosha, Wis. 9-2

For Sale—Registered Holstein cows, heifers or heifer calves. Accredited herd. Price right. GEO. DIEHL, Montrose, Ill. 9-2

Pure Bred Holstein Bulls from 1,182 lb. record Ormsby sire. Cows and heifers fall and early winter freshening. Bred to Ormsby sire. Federal Accredited. ROWE BROS., Waupaca, Wis. 10-2

Fifty Holstein cows, heifers, calves. Pure breds, high bred grades. RANKIN PAUL, Washington Court House, Ohio.

For Sale—My entire herd of 18 pure bred grade Holsteins that averaged 421.4 fat 12,007 milk in 1923, for the first 6 months of 1924—240.8 fat 7,173.5 milk. BERNARD TERHAAR, Dorr, Mich.

We are Offering 18 grade cows to freshen this fall, and 3 Guernsey bulls. M. L. WELLES, Rosendale, Wis. 9-3

For Sale—Any part of fifty Guernsey females. Also a real good Guernsey bull, F. J. GLANVILLE, Lancaster, Wis. 8-4

Registered Guernsey Bulls nearing serviceable age. Best May Rose, Golden Secret breeding. A. R. dams, herd accredited. ALLIC KNUDSON, Brodhead, Wisconsin. 8-4

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls. A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Splendid Registered Guernsey Bull, 3 years, Masher breeding. Priced low. For photos, pedigree, address PETER CHAPEK, Route 2, Ashland, Wisconsin.

Five Registered Guernsey heifers for sale coming 2 years old. Sired by Upland's Challenge whose dam, Uplands Hulda, has 743 lbs. fat. They are bred to Cinderella's Fame of Mound City, a son of a 909-lb. cow. HOMER RUNDELL, Linwood Farm, Livingston, Wis. 10-4

Registered Guernsey Bull calf six months old. Mother on official test and in 121 days has made 229 lbs. fat. WALKER GUERNSEY FARM, Webb City, Mo. R 1.

For Sale—Carload of high grade Guernsey cows. Pick of herd. Also yearling heifers. KENNETH MAULE, Dousman, Wis. 10-2

Carload heavy springing Guernsey **cows for sale.** SHAMBEAU & KENYON, Waupaca, Wis. 10-13

50 High Grade heifers, 15 Guernseys and 35 Holsteins from one to two years old. 28 open, 22 bred. Well grown and in good condition. Carefully selected from high producers. Price $40 to $90 each. SUNSET FARMS, Sunset Hills, Va. 10-3

Pure Bred Guernseys. Three yearling heifers, bull serviceable age, out of A. R. cows, one of best sires in state. GEO. ADAMS, Route 1, Nashotah, Wis. 10-2

Registered Brown Swiss cows, heifers and bull calves. WM. REHBERG, Tomah, Wis. 10-2

Registered Brown Swiss heifer calves wanted. SCHEIDEL BROS., Calmar, Iowa. 9-2

For Sale—21 two year old high grade Jersey heifers. Pasture bred to registered Jersey bull. I. F. SUTER, Box 242, Palmyra, Missouri. 9-4

Jersey Bulls—Ready for service. Reasonable prices. RAVINE FARM, Highland Park, Illinois. 10-4

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

Holsteins-Guernseys; High class cattle, any age, bought on commission. A. F. BENNETT, Pewaukee, (Waukesha County), Wis. 10-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

For Sale—150 tons alfalfa and clover hay, $15.00 f. o. b. Twin Lakes, Wisconsin. BELVOIR FARMS, Lake Geneva, Wis. 8-3

Alfalfa or anything you want in dairy hay. Write or wire for prices, HARRY D. GATES COMPANY, Jackson, Mich. 9-*

FARMS FOR SALE

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

For Sale—An ideal dairy farm at city limits. Concrete road. Telephone. Good soil, buildings. Good market, schools, churches. N. H. ROBINSON, owner. Wisconsin Rapids, Wis.

240 Acre all cultivated, **highly** productive, village farm 40 miles from twin cities. Depot, store, elevator, school, etc., at very dooryard; electric power, lights. Two residences, barn, silo, etc.; orchard, beautiful lawn, shrubbery; all fenced; only $125 per acre, about half cash. For quick deal will include my fine herd registered Holsteins, full line farm machinery, horses, hogs, poultry, crops. Immediate possession. Address owner, WM. McNAMARA, New Richmond, Wisconsin.

For Sale or Lease—Highly improved stock farm of 560 acres in central Illinois near the city of Peoria. Will equip for dairy farm and will furnish some capital or take interest in the business with the right man who can furnish his own help. Give references and full information. P. O. BOX NO. 743, Washington, Illinois. 10-2

For Sale at Public Auction October 4th in settlement estate, Buena Vista Stock Farm, 456 acres clay loam, good buildings; quarter mile from large creamery, good high school, 56 miles east of St. Paul on Soo Line. For further information and terms write FIRST STATE BANK, Glenwood City, Wis. 10-2

187 Acres, 140 mostly level, tillable; on macadam 2 miles from 20,000 town; 2 houses, 2 barns, 2 silos, other buildings; running water, 180 quart milk route, 11 registered Holstein cows, 7 grades, 3 horses, young stock, tractor; modern farming tools. JOHN NORRIS & SON, Owners, Waverly, N. Y.

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

Just Out—Fine free picture catalogs of Shawano, Oconto and adjoining county farms. No commissions. Deal direct with owner. Write today. THE WISCONSIN FARMERS & HOMESEEKERS SERVICE BUREAU, Marshfield, Wisconsin.

Just Out! Copy Free! Strout's Big Farm Catalog. 152 illustrated pages equipped money-making farm bargains, village homes, stores, gas stations, tea rooms, garages. Page 11 shows 40 acre brook-side farm, edge village, good 6-room house, woodland, fruit; cow, implements, potatoes, corn, hay, etc., all for $850, less than half cash; don't miss it. See page 91 for 90 acre farm with horse, 3 cows, pigs, hens, tools, crops, substantial bldgs.; only $1,200, half cash. Page 64 describes 194 acre farm, 100 acres tillable, 150,000 ft. timber, 9-room house, ample barns, 12 cows and heifers, implements, crops; big value at $2,500, only $750 required. Hundreds others, all great bargains. Call or write today for free copy. It will save you time and money. STROUT FARM AGENCY, 150DL Nassau St., New York City.

Farm—96 acres, modern improvements. Improved road, mile to town. W. B. BULLOCK, Skerburne, New York.

FOR RENT

For Lease—Model dairy farm fully equipped for certified milk. 18 miles from Washington. 200 cow barn capacity. Railroad station 1-4 mile from barn. Ample tenant houses. 100 acres of alfalfa. Annual milk receipts $40,000. Could be easily increased 50% to 100%. Leasing farm on account of death of owner. Executors can offer attractive proposition to experienced dairyman with capital. G. M. HUTCHISON, Sunset Hills, Virginia. 7-4

For Rent—80 acre farm, best location Waukesha County. Horses, crops, machinery. Act quickly. M. COYLE, 781 Cass St., Milwaukee, Wis.

For Rent—100 acre dairy farm, fine soil and improvements. Renter must have $1,500 cash. IRA SHANK, Monticello, Minn.

160 Acre Improved stock or dairy farm, $35. CLAUDE AUSTIN, Blue Mound, Kans. 10-2

For Rent—50-50 basis—200 acre dairy farm. North central Iowa. Address BOX 176, Humboldt, Iowa.

FARMS WANTED

Wanted—Large going farm completely equipped; full particulars first letter; name price and whether exchangeable for city income property. Address BOX 277, care Hoard's Dairyman. 9-*

Wanted—60 to 100 acre farm highly improved and well stocked. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. BECKENNELS, H D W, Herrick, Illinois. 9-4

For Sale—Blood hounds, registered stock, best breeding from $100 to $500 each. W. L. CLARK, Johnston, S. C. 10-2

Pair Guaranteed fox, coon hounds, $75. HERBERT REEVES, Marshall, Ark. 10-3

GOATS

Milk Goats—Toggenburgs, wonderful milkers. Bucks, does, yearlings, fresh does. Kids $10 up. Send for list. MATTHEW CATION, 10,952 Esmond Street, Chicago, Ill.

SILOS

Silo Bargain—12x20 Washington Fir Silo. Never erected. ALBERT C. WOLLIN, Johnson Creek, Wisconsin. 7-4

HONEY

Pure Honey, 10 lb. pail, $1.50; three pails, (30 lbs.), $4.00. AMBROSE RIEFF, Mankato, Minn. 10-2

AGENTS WANTED

Amolax, wonderful stock laxative, quick action. Satisfaction or money back. $1.50. Agents wanted. RUSSELL DINGER, Melvina, Wis. 9-2

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

TOBACCO

Homespun Tobacco—Chewing, five pounds, $1.75; ten, $3.00; twenty, $5.25. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Ky. 7-4

Natural Leaf Tobacco—Chewing five pounds, $1.75; ten, $3.00; smoking, five pounds, $1.25; ten, $2.00; pipe free, pay when received. Tobacco Guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 8-4

Homespun Tobacco, Chewing, 5 lbs. $1.75; ten $3.00. Smoking, 5 lbs. $1.25; ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 9-4



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

All Men, Women, Boys, Girls, 17 to 65, **willing to** accept Government Positions $117—$250, traveling or stationary, write MR. OZMENT, 371, St. Louis, Mo., immediately. 14-*

Wanted—Man for milk route and dairy work. Must be honest and reliable, neat in appearance and a gentleman. No cigarettes. State age, wages, experience, full particulars, and give references. Address BOX 241, care Hoard's Dairyman. 6-*

Wanted—Experienced herdsman to take charge of a Raleigh bred Jersey herd. Must be a man of good morals. Well posted on blood lines and breeding of Jersey cattle. Must be a real good milker. In fact he must possess all qualities that it takes to make a first class dairyman. This position pays $165.00 per month and house rent free. Address all communications to W. S. HONNOLL, Business Manager, State Insane Hospital, Jackson, Miss. 6-*

Position Open October first for experienced herdsman, single. Must be experienced in both short and long time test work, the production of certified milk and be able to handle men efficiently. Prominent Holstein breeding establishment. Modern barns. Good wages paid to man who can produce results. Give age, experience and references in first letter. Address BOX 255, care Hoard's Dairyman. 7-4

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 8-4

$95—$192 Month. Men—women, 18 up. Get U. S. Government positions. Steady work. Short hours. Life positions. Paid vacation. Work pleasant. Common education sufficient with our coaching. Experience unnecessary. List positions obtainable—FREE. Write immediately. FRANKLIN INSTITUTE, Dept. R106, Rochester, N. Y. 9-4

Married Couple wanted on modern dairy farm; wife to do housework. No children preferred. State wages. R. E. SCHEIDEL, Calmar, Iowa. 9-2

Wanted—Thoroughly experienced man and wife or two men for small dairy. Salary to suit or sell half interest. J. P. PARKS, Box 391, Clarendon, Tex. 9-2

Wanted Immediately—Married man (with children old enough to help) as tenant of three hundred acre farm. Must be good hog, sheep and stock man. Want to raise sheep, hogs, poultry and milk cows. Sixty acres in alfalfa. Fifty-fifty proposition. Have farm stocked. Please investigate. Must be taken by Sept. 22nd. HERBERT N. CROONQUIST, Kensal, North Dakota.

Eight Testers Wanted before October 1st for one year in Cow Testing Associations. Prefer single men over twenty one years of age having Short Course or herdsman training. Tell experiences in dairy cattle feeding and operating Babcock tester first letter. With salary $75 to $80. Write CRAMER, Dairy Records Bldg., Madison, Wis. 10-2

Wanted—Single man, dry hand milker, on certified dairy, fifty dollars. Don't apply unless you want steady work. CAMPBELL FARM, Hopkins, Minn.

Wanted at Once—Married man to work on dairy farm in Iowa County. Wife to help milk. GLENN MASSEY, Hollandale, Wis.

Wanted—Experienced working manager, married. Dairy farm. Address BOX 290, care Hoard's Dairyman.

Wanted by Oct. 15th—Two clean, reliable, single men. One working herdsman, the other to deliver milk on small route and do milk house work. Good living and working conditions. State wages wanted. GEO. W. AVERY, Stephen, Minn. 10-2

Wanted—Capable man with general farm experience and good executive ability to take charge of large institutional farm. Must understand fruit, dairying and all kinds of stock; married, preferably without dependent children; character excellent. This is a high class proposition for the right man; references; position open Dec. 1. Address BOX 291, care Hoard's Dairyman.

Wanted—about Oct. 1st a capable working manager for large dairy farm. For information address MERTON F. BAKER, Glenwood City, Wis. 10-2

Wanted—Good dry hand milker, single. One who understands keeping barns and milk sanitary, not afraid of work. $40.00 a month and board. Address MOUNT RIGA FARMS, Big Cabin, Okla. 10-2

Wanted in South—Two sober, reliable, young men for farm work. Good wages, modern equipment, pleasant surroundings. No milking. Address BOX 292, care Hoard's Dairyman.

Wanted—Experienced dairyman; full management, new modern dairy. R. B. FUNK, Poteau, Oklahoma. 10-3

Wanted—A man and wife, no children. Man to take charge of Guernsey herd, wife to cook for small family. Two miles from town, modern improvements, De Laval Milker, etc. Address BOX 71, Lexington, Kentucky. 10-3

POSITION WANTED

Position Wanted as farm manager or foreman. Married, no family, six years' experience in dairying and with test cows. Understand grain farming and stock raising. Can furnish very best of references. Can commence soon. GUY F. COVELL, care Larch Wood Stock Farm, Prophetstown, Ill. 8-4

Position Wanted—By young married man as dairyman in up-to-date dairy. 12 years' experience in high class dairying. References exchanged. W. E. McCONNELL, Sabot, Va. 9-2

Position Wanted at once by experienced, honest, reliable herdsman age 21, Holsteins preferred. BOX 282, care Hoard's Dairyman. 9-2

Position Wanted as assistant herdsman. Experience in feeding and care of cattle. Practical and college training. Can furnish references. Address BOX 273, care Hoard's Dairyman. 9-2

Position Wanted—Caring for cows and milking by two Hollanders, aged 22 and 23 years. Year around job preferred. Address BOX 289, care Hoard's Dairyman.

Wanted by Married Man—Position on up-to-date dairy farm. Agricultural education and years of experience. Open Oct. 1st. Place where responsibility and chance for advancement will be appreciated. References exchanged. Address BOX 286, care Hoard's Dairyman.

Want job on 20 cow dairy farm, retail trade preferred. Share basis preferred. Experienced. Reference, plenty help. Particulars first letter. Address BOX 288, care Hoard's Dairyman

Wanted by Oct. 15—Position as head herdsman in state institution; married, no children; wife capable of being matron as she has managed a hotel accomodating from 50 to 200 people per meal. Good references, middle states preferred. Address BOX 294, care Hoard's Dairyman.

Wanted—Position as working manager of dairy farm. Life experience. Single, age 26, can furnish reference. A. G. PARKER, 918 Leland avenue, Chicago, Ill. 10-2

Position Wanted as herdsman. 15 years experience. Experienced in butter making, certified milk, official work, A 1 feeder and calf raiser. State wages. Address BOX 287, care Hoard's Dairyman.

College Graduate wants position as Manager or Superintendent of first class dairy farm. Age 40. Life experience with some of the best herds in the country. Thoroughly understands the breeding and raising of pure breds, testing, showing, etc., and general farming in all its branches. Guernseys preferred. Available after Dairy Show. First class references. Only first class proposition considered. Write BOX 279, care Hoard's Dairyman. 10-spl

Wanted—By American, 45, single, position to take entire charge of test work in large herd of Guernseys. Man with unblemished reputation and unusual ability and has succeeded in his efforts. Two world's records that stand unbeaten today. With present herd 3½ years. No position paying less than $125.00 a month considered. Unquestionable references as to ability. Address BOX 293, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

Wanted—Work on a farm by the month by a family of three. Or will rent a farm on shares where stock and machinery are furnished. Please state wages and full particulars in first letter. HANS J. HANSON, General Delivery, Madison, Wis.

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MACHINERY

For Sale—Eight new cream separators never removed from box. Bargain prices for quick sale. THOMAS TAFFEE, Box 355, Lansing, Mich. 7-5

Want to Buy a hay bailing press in good condition. Give name, make, model, and year, with price in first letter. BOX 266, care Hoard's Dairyman. 8-*

Corn Harvester cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only $25 with bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. PROCESS HARVESTER CO., Salina, Kansas. 9-2

Three Perfection Milker Outfits very cheap. Closing out dealers stock. WILLARD LOWE, Mt. Horeb, Wis.

Reason for a Truck

The other day pa got quite riled,
When "Miser" Ole Brown
Drove up and stopped, looked 'round and popped
A question with a frown:
"Now what in all tarnation, pray,
Has in your brain got stuck,
That you grab off a luxury—
A spankin', brand-new truck?"

Pa's not the man to hesitate,
And "Miser's" not his kind,
So pa, like Patrick Henry, starts
To give a piece of mind:
"I'm not like some who boast of brains
As empty as a shuck;
And that, it might be stated, is
My reason for a truck."

"If trucks were not economy,
How many would be sold?
If time is turning backward, why
Do you and I get old?
Try waking up and from your mind
Some mental cobwebs pluck,
And you'll not wonder very long
On why I bought a truck.

"Just listen and I'll do for you
Some neat arithmetic;
It's quaint, I know, but still, in print,
It looks quite rhetoric:
My farm from town is eight miles west,
And each day there is cream;
It takes four hours six days a week
To transport it with team.

"Now with a truck it takes an hour—
Three hours I save a day,
Six days a week I save eighteen—
How much is that, I pray?
Or in a year what would it be?
On hauling cream alone?
You're talking, Brown, like folks once did
About the telephone.

"There's just two ways of looking at this,"
Pa argues without halt,
"Namely: Is time worth anything?
Or, aren't you worth your salt?
If 'no' you say, then I give up,
I've truly run amuck;
You can't expect to understand
My reason for a truck."

R. D. GALT.

Vertical Log Construction

HOARD'S DAIRYMAN:—The greatest expense in the development of a new farm is the building proposition. What I am interested in is how settlers, particularly in Northern Minnesota, may go about in developing their farm at a minimum expense in constructing their buildings.

There are two kinds of log houses or buildings, the horizontal and the vertical. In the case of the horizontal type, large logs are necessary, some 12 to 18 feet in length and from eight to 12 inches in diameter. Not all cut over and timber lands in Northern Minnesota will provide such logs. Then, too, such logs have a very good market value. The vertical log type may be constructed from short logs 7 to 9 feet in length and from 5 to 8 inches in diameter. Such logs have little market value and are found in large numbers on the average clearing.

The vertical log type of building has several advantages over the horizontal: 1. Shorter and smaller logs necessary, hence easier to secure. 2. More quickly and easily constructed. 3. Will last longer because the water will shed off the logs more rapidly. Horizontally placed logs which crack will gather water, while if set vertically, water will drain out, avoiding rotting.

It is important that the proper procedure be followed in the construction of vertical log buildings. A concrete foundation should first be constructed. The part of the foundation on which the logs are to rest should be from 6 to 8 inches wide depending on the size of logs to be used. On the inside of this, another step should be so built so as to permit the floor joists and the first floor to be even with the outer foundation on which the logs are to rest. This part of the foundation should be perfectly level.

If six-inch logs are to be used, take two 2x6's, placing one along the edge of the floor next to the concrete part on which logs are to rest. Place the other 2x6 about 8 feet in on the floor. Each scantling must be placed on edge. Now place between these scantlings your logs. Start from each end, selecting straight logs for the ends. Place the rest of the logs in between, rolling them around until they fit best. Spaces for the windows may also be inserted while in this position. When all the logs are



A COMBINATION VERTICAL AND HORIZONTAL LOG ARRANGEMENT

Eight-inch logs were used in this case. The exposed parts of the peeled logs have been oiled.

in place, spike thoroughly, using large size nails, two in each end of log. When this is completed, nail two braces on diagonally across the wall. This will keep wall straight while being raised. Tip the wall up in place. Nail two-inch strips from top 2x6 to bottom 2x6 at each end, on which a level is placed so as to keep wall straight. When in proper place and leveled, nail in place and brace.

Prepare the opposite wall in the same manner, then the ends. When they are all up, nail together and bind by means of the second plate. The rest of the building may now be completed like any frame building. Strips may be nailed from top 2x6 to bottom 2x6 the desired distance apart, blocks filled in and the wall may be lathed and plastered, or wall board used. A perfectly straight, smooth wall is assured.

"Chinking" should be done with a 4 in 1 mixture of sand and cement. It is of advantage to drive in nails, leaving head exposed about one inch along between logs where cement is to be applied. These nails may be about 6 inches apart. To get a coloring effect, color may be added to cement mixture. No cement work should be done unless logs are absolutely dry.

Any style of building may be successfully constructed. Good dwellings, poultry houses, barns, garages, machine sheds may be built. If properly "chinked" they make very warm buildings. This is particularly true if they are lined, or sheated.

The exposed part of the logs on the outside may be sand-papered and varnished so as to bring out the coloration of the wood.

If the necessary logs are available and you supply your own labor, log houses of this type may be constructed much cheaper than the ordinary frame.

Minnesota. A. H. OLESBURG.

On July 1st there were 730 cow testing associations in operation as compared with 627 the previous year. The average production of the 61,000 cow testing association cows, for which records have been tabulated, is 6,274 lbs. milk containing 257 lbs. fat. This is about 60% more than the average production of all cows in the United States.

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YOUNG BULLS READY FOR SERVICE.
ALSO COWS AND A FEW HIGH GRADE COWS AND HEIFERS.

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AYRSHIRE BULL CALF three months old, extra good individual. Sired by son Penshurst Rising Star.

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Spring Pigs $20 each—$37.50 per pair. From Famous LOOK-OUT-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



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DUROCS PUREBRED SPRING PIGS—Healthy, vigorous stock, both sexes. Shipped on approval.
WALTER SCHEDLER, Coxsackie, N. Y.



PUREBRED and GRADE
HOLSTEINS

PURE-BRED HEIFERS and COWS, due to freshen this fall, at $150 to $200. Also have some granddaughters of 37th, with records up to 25 lbs., junior 2-year-olds at $350.

RANDOLPH HOLSTEIN ASS'N.,
S. W. Pierce, Sec'y., RANDOLPH, WIS.

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YOUNG GUERNSEY COWS with A. R. records over 500 lbs. of B. F. and bred to freshen in November. Also 4 or 5 yearling heifers and one bull from dams with good A. R. records. Accredited herd.

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University Station, Box 15, Syracuse, N. Y.

"Much bothered with tramps out your way?"

"I was until I tacked a sign on my gate."

"Ah! 'Beware the dog', I suppose."

"Oh, no. Simply, 'Farm Help Wanted'."—Boston Transcript.

SALE ANNOUNCEMENTS

Sept. 19—Holsteins and Guernseys, Chippewa Falls, Wis. Holstein and Guernsey Associations of Chippewa County. De Lancey Bros., Sale Managers.
Sept. 20—Holsteins. Dispersal Sale of J. C. Bolger, Waterloo, Wisconsin.
Sept. 22—Holstein Dispersal, A. C. Daily, Springfield, Mo. W. H. Mott, Herington, Kas., Sale Mgr.
Sept. 26—Guernseys. W. E. Wright, Akron, Ohio. Ohio Guernsey Breeders' Ass'n., Wooster, Ohio, Sale Managers.
Sept. 27—Holstein—Pierce—St. Croix Annual Sale, River Falls, Wis. Twin City Pedigree & Service Co., Mgrs.
Sept. 30 and Oct. 1—Sale of grade cows with cow testing association records at National Dairy Exposition at Milwaukee, Wis. C. L. Hill, Rosendale, Wis., Sales Manager for National Committee.
Oct. 2—Ayrshires. Dispersion of Aldebaran herd at Racine, Wis.
Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.
Oct. 6—Holsteins. Wisconsin Dairy Show Sale at Waukesha, Wis. Wisconsin Holstein-Friesian Association, Managers.
Oct. 7—Holsteins. Hillsboro Holstein Ass'n., Hillsboro, Wis. Gus Knick, Sec'y.
Oct. 8—Holsteins. Hickory Grove Farm's Second Annual Sale at Fairwater, Wis. W. J. Beilke.
Oct. 8-9—Mankato Holstein Farm Dispersal, 125 head. Mankato, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 8-9—Blue Earth Co. Guernsey Breeders' Assn. at Mankato, Minn. Dr. M. B. Wood, Sale Mgr.
Oct. 9—Holsteins. Clark Co. Holstein Sale at Neillsville, Wis. John Wuethrich, Greenwood, Wis., Sale Mgr.
Oct. 9—Second Annual Mississippi Valley Holstein Show and Sale at St. Louis, Mo.
Oct. 10—Holsteins. Second Annual Freeborn County Consignment Sale. E. G. Cort, Mgr.
Oct. 11—Holsteins. Clark Co. Holstein Sale at Neilsville, Wis. Jno. Wuethrick, Greenwood, Wis., Sale Mgr.
Oct. 11—Dr. H. P. Fischer Dispersal 75 Holsteins at Shakopee, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13—F. H. Bauer Dispersal 70 head Holsteins at Delano, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Oscar W. Hanson, 65 Holsteins at Withrow, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.
Oct. 15—Jerseys. Dispersal Sale J. R. Woods, Austin, Minn. B. C. Settles, Sale Mgr.
Oct. 16-17—Johnson County Holstein Co. Dispersion Sale, Warrensburg, Mo. J. L. Ferguson, Secretary.
Oct. 17—Bradford County 2nd Annual Registered Jersey Consignment Sale at Troy, Pa.
Oct. 21—Guernseys. Goldmead Farm's annual sale of Registered Guernseys at Versailles, O. Spiller & Worch, Owners.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Oct. 24—Holsteins. Dispersion of the Spring Valley Stock Farm herd at Pittsford, Mich. Elisha Bailey & Son, Owners.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 31—Holsteins. Enock Carlson, Roberts, Wis.
Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 4—Walworth Co. Holstein Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 5—Holsteins. Rock Co. Holstein Breeders' Semi-annual Sale at Janesville, Wis. John W. Jones, Sec., Milton, Wis.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.



Erasing the Date

It is said that the famous Dr. Charles Mayo told a meeting that he was addressing, "Every human being has a card on which are written in indelible ink his name, his address, and the fact that he will die. The date of his death and the disease from which he will die are also on this card, but these are written with pencil and may be erased and changed."

Changing these and setting back the date is a game that interests everyone—not only grown persons for themselves but for their children.

Some allowance must be made for accidents but in the main good health is simply a matter of common sense and up-to-date information from reliable sources, not quacks.

"She knew they had it—or at least she should have—and then she let my children be exposed," sobbed a worn-out mother to me lately. It was whooping cough, a disease that is dreaded more and more as its mean nature is more fully discovered. An astounding number of children and even grown-ups die of this disease every year and thousands more are so weakened by it as to be easy prey for other diseases.

In the case referred to the mother of the coughing children was an easy-going person—the sort that prides herself on never worrying about anything. That is a very admirable trait except where it is found with a lazy disposition to "let things take their course". This time her carelessness had led to the infection of a whole family and an already overworked mother was battling with a dangerous case of whooping cough—four children sick at one time.

Whooping cough is only one of the diseases a thoughtful mother has to consider at this season of the opening of schools. It is so difficult—and yet so necessary—to draw a line between fussiness about health and carelessness. It would be fine if we could simply disregard our bodies, but Nature has certain laws and she insists upon payment if we break them.

We are all constantly exposed to germs that we know nothing of and if we took all the diseases that we have a chance to we would spend most of our time being sick. The best safeguard there is, is a body that is always kept up to its maximum of fittness by proper eating, sleeping, and working and in addition a sensible, but not worrying, regard for the laws of disease.

I hope that you have all been able to secure teachers who are not only healthy themselves (these always have a more wholesome effect on children) but who understand and will practice simple rules of health and hygiene in their school rooms.

One of the most notable cases in the improvement of the average health of school children was effected in a Wisconsin village when a resident of the village was put in charge of school health. He did not believe in closing schools but he did believe ardently in excluding from school any child that showed any sign of a cold though it was only a sniffling, wateriness of the eyes, or other slight symptom.

It is thoroughly established that many serious diseases start from the same symptoms from which a cold starts. Also that what is a "common cold" with one child may be something serious if passed on to another. This man kept careful records and he found that by sending home all children who showed traces of a cold he actually increased the percentage of attendance and the efficiency of the school.

Some parents take it as a personal affront if the teacher sends home their child for any cause. This is an unworthy and unintelligent attitude and no broad-minded, sensible parent will act without being sure a wrong is done.

I am reminded of a man we know. His little boy came home from school morning after morning saying, "Teacher sent me back because I've got a cold; she said not a very bad one but I should stay at home today." After the fourth day of this the father was so furious that he took the child to a doctor who found no trace of a cold. Then there was a very undignified explosion! He flew first to the health officer and then to the teacher giving them both a large piece of his mind.

Imagine his consternation to have the boy, on investigation, confess that he had made up the stories so that he would not have to go to school "because there is a boy there that said he was going to give me a licking".

The teacher should always have the benefit of the doubt and of kindly investigation and support when it is needed. She is a very important person in the life of a child and if she is wise and observing and has the co-operation of parents she can do more than doctors and health officers combined for the well-being of her pupils.—LUCY THOMPSON.

Frosting Recipes

Sugary failure ne'er spoils your cake
When you an uncooked frosting make.

Unboiled frostings are attractive and tempting when properly made and give little opportunity for failure, declare food experts at the University of Wisconsin.

Butter icing is the richest kind. It is made by beating 1 cup of butter until creamy and then gradually adding confectioner's sugar until stiff enough to spread. The desired amount of flavoring is then added. Attractive individual cakes are made by covering the sides of squares of white cake with a layer of butter icing and by decorating with blanched almonds.

Cream frosting is made by working cream into powdered sugar with a fork until the right consistency is obtained. Flavoring is added and vegetable coloring, if desired. Fancy cakes may be made by painting letters or designs on the frosting after it has set. A large water color brush is generally used and should be kept in the kitchen for that purpose. It should be washed with warm water before being put away. Birthday cakes delight the children when they are decorated with pink candies or chocolate letters made from frosting which is just moist enough to spread.

Chocolate frosting is quickly made by adding two cups of powdered sugar to a mixture of 1 square melted chocolate, 4 tablespoons of hot water, or 4 tablespoons of black coffee, a pinch of salt, and 1 teaspoonful vanilla. Beating makes this frosting very creamy.—University of Wisconsin Home Economics Dept.

The Kitchen Table

No woman can work efficiently in a cramped and unhealthful position. Many persons will say that there is nothing new in that remark, but when thought of in connection with the kitchen table, it assumes a new aspect. If a woman can stand erect and lay her palms flat upon the table top, it is about the right height, but if she has to lean over to do this it means that she has to lean over in doing lots of things at the table. This puts unnecessary strain on the back, which though it may be uncomplaining at first, will in time complain in no uncertain tones.

Castors or blocks may be used to raise the table to the right height, and women cannot afford to lessen their lung capacity, strain their backs, and suffer from unnecessary headaches just to save a few cents and the labor involved in raising a table to a comfortable working position. Tables should be made to fit the women rather than to make the women fit the tables.

If two women of marked difference in height must use the same table, it is much better for the shorter woman in her work to reach a little upward than for the taller one to stoop too much. If necessary, the shorter woman may stand on a stool. It is always well to remember that a stitch in time saves nine as much in the realm of physical health as in sewing or anything else; and a stitch in the back is one too many.—New York College of Agriculture.

Carrot-and-Corn Chowder

This is a wholesome dish which can be used thin as a soup or can be thickened and used as a vegetable dish. Having the bacon and milk used in it makes it very nourishing.

Cut fine a quarter pound of bacon. Cook this slowly until brown with an onion cut up in it. Use a large onion if you are very fond of them or a small one if you want only a suggestion of their flavor.

Take a pint of sliced carrots and a pint of corn and cook each until tender. Combine with the bacon and onion mixture, add one and one-half pints of rich milk, add salt and a little pepper, boil up once, and stir in two well-beaten eggs.—LUCY THOMPSON.

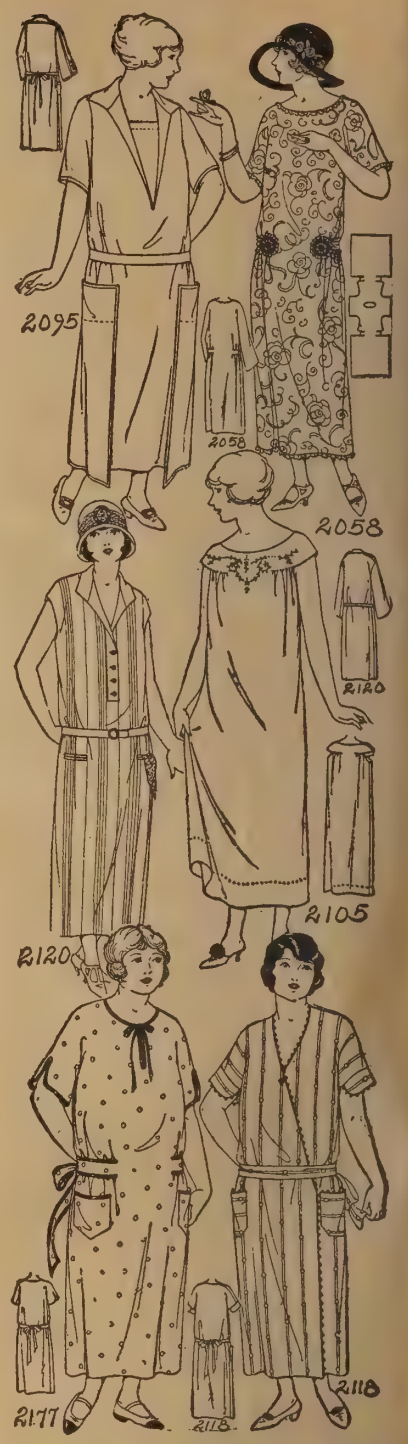
An Irishman's Point of View

"Did yez see this, Mike? It says here that whin a mon loses wan av his sinses, his other sinses git more developed. F'r instance, a blind mon gits more sinse av hearin', an' touch, an'—"

"Sure, an' 'tis quite true. Oi've noticed it meself. Whin a mon has wan leg shorter than the other, begorra, the other leg's longer!"—Everybody's Magazine.

To make cold starch that will keep for several months, mix together half a pound of starch, a tablespoon of turpentine, a teaspoonful of powdered borax, and three pints of boiled cold water.

Miscellaneous Fashions



No. 2095—One-Piece Dress for Ample Figures. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3¾ yards 40-inch material.

No. 2058—One-Piece Dress—see diagram for simple construction. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3 yards 36- or 40-inch material with 4 yards of ruffling.

No. 2120—One-Piece Slip-On Dress. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3⅛ yards 36-inch material with ¾ yard 36-inch contrasting.

No. 2105—Dainty Nightgown. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3⅛ yards 36-inch material.

No. 2177—Attractive House Frock. Cut in sizes 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3 yards 36-inch material with 9¼ yards of binding.

No. 2118—Porch or Morning Dress. .Cut in sizes 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3 yards 40-inch material with 3¼ yards of braid.

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Friendly Talks for Farm Folks

The United States government now has four creameries turning out number one butter for the gobs of the navy. The butter is packed in five-pound hermetically sealed tins, so that it may be used aboard warships and carried into the tropics without refrigeration. It seems to us that we have heard whispers in the past of 'oly' being served aboard. If so, the government is making due amends and seeing to it that our sailors know that real June butter flavor only from now on.

Tim Tarbell and his wife keep summer boarders for the sake of ekeing out a living on the farm, and as might be supposed, some of the city gentry are occasionally supercilious and high and mighty at their hosts' expense. The other day a smarty from New York accosted Tim as he was slopping the hogs, and inquired, "Say, Rube, what do you do for a living when we folks leave you?" Tim kind of looked him over and then said in a dry tone, "Waal, 'bout the same as we do through the summers. Keep on fattening hogs."

We say it again with every force possible: If the farmer and the city worker could only change places for just six months and actually find out at first hand how the other half lives, you couldn't hire either side to swap permanent jobs and never again would you hear complaints and gnashings of teeth over the mean deal life has served both. And that even takes into consideration eighty-cent wheat and work when you can get it in the big towns.

If the speed-crazy autoist were only half as much interested in not being killed at railroad crossings as the railroads seem to be not to have him, there probably would be no point in eliminating these danger zones.

As it is not particularly profitable to keep laying hens any more, we suggest to the ambitious poultryman-farmer that he keep brick layers instead and make his fortune in two or three days.

The new paper money now being prepared by the Treasury is to be blue, red, green, brown, and yellow in colors. In case we should ever get close enough to one to see the whites of its eyes we will hum something like this: The note is red, the bill is blue; just stick around, for I love you.

There may not be a great many young hired men down on the farm whom you could call real sheiks, but we notice that any half-way hard-working, presentable farm hand can have the hand of his employer's prettiest daughter for the asking. Hired men are scarce articles these days, and the canny farmer-father knows it full well.

In the country the tired farmer and his family retire as soon as the bedtime story has been broadcasted, while down on "the sidewalks of New York" the tenement kids are just getting ready to begin the day as Uncle Wiggly safely arrives home from his last journey in an airship.

Daniel Spooner admits that he expects to keep right on making mistakes until the end of the chapter, but he does hope that most of them will be new ones.

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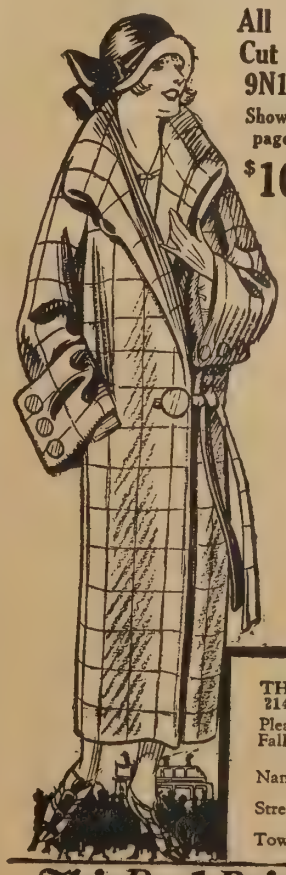
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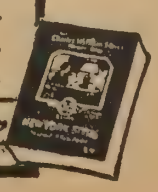
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POULTRY On The DAIRY FARM



J. B. HAYES

Young Poultry Dies

I must come to you with my trouble that I have with my poultry this year. In May I got 149 chicks from my incubator. When they were nearly one week old they started to die. About 40 are left. Three weeks later I got 130 from the same machine and they all died one morning. The droppings from these chicks were bloody and thin. The chicks hung their wings and in half a day or even a few hours they were dead.

I had 29 young geese and 70 young ducks last week. There are only 8 geese left and about 15 ducks. They get so weak they can't walk. Their droppings are white, thin, and like chalk.

I have turkeys which are six weeks old today, from which two died this week. They were sick three days. They have colds; when they breathe puffs form under their eyes. Their eyes are pasted shut and seem like blind; they open their beaks to breathe and there is a rattling sound which seems to come from the lungs. The droppings are white and yellow first, and then dark green.

Please write me what I can do for my sick young poultry.

Richfield, Wis. (MRS.) B. M.

There seems to be a regular epidemic of things wrong around your place when all the other classes of poultry are in trouble as well as the young chicks. It is not so unusual to encounter some trouble with chicks and a great deal more is expected with turkeys, but geese are ordinarily a cut and dried proposition with lots of good range.

An examination of the diseased stock by the Veterinary Department of the College of Agriculture, Madison, will give one very definite information concerning the cause which is not possible from a description, as any one of several diseases or conditions might be responsible. No charge is attached to this work when the specimen is received by express prepaid at Madison.

Either white diarrhea or coccidiosis might be the cause. The white diarrhea can be caused by a specific organism that is transmitted to the chick by the hen through the egg. No special physical appearance indicates this disease except in a laboratory examination. From the heavy loss you have encountered this seems to be the condition. No control except an effort to maintain vigor in the flock by proper feeding and management is possible. A drug or medicine, except that contained in milk feeding, a good ration, and proper management, will not accomplish any good.

A condition of diarrhea can be induced by improper feeding, chilling, overheating, parasites, and a multitude of other things. Correcting the condition responsible will correct the so-called disease.

Coccidiosis is becoming prevalent in chicks 2 to 12 weeks of age. Symptoms are weakness, ruffled feathers, loss of appetite, and a bloody or whitish diarrhea. The ceca is inflamed, distended, and contains yellowish or bloody material. All equipment should be thoroughly disinfected and the chicks changed to a clean, fresh range. Raising chicks year after year on the same plot is responsible. The range should be supplied with green stuff and the chicks carefully fed on some form of milk and grain until they get back into normal condition.

In the hen brooded lots, one should make careful examination for lice and the chick mite in the house. Sweet oil or other greasy material applied to the top of the head and beneath the wings and a mite eradicator to the house is advised.

The ducks and geese should be kept free from parasites and in a well ventilated house. Lack of proper ventilation at night is often directly responsible for a loss. This assumes that the ventilation can be given without them chilling.

A ration for ducks often recommended and freely used is one part corn meal, 2 parts bran, add 5 per cent meat scrap and a little fine grit and coarse gravel. Give an occasional feed of green stuff. This is fed five times a day for the first five weeks and then three times a day.

For the first day goslings should not be fed except the green feed they pick themselves. After that, feed a mash feed three times a day and allow free range or succulent green feed.

The poults have undoubtedly contracted colds that developed into roup and canker. One might try boric acid powder in the eye. They should be confined in a yarded space on short grass that is succulent. Never allow them free range for the first six or eight weeks but change the coop and yards once a week or oftener. Keep them out of rains and closed until the dew is off the grass in the morning.

Most poult troubles result from overfeeding. Feed often but very small amounts at a time to force the consumption of more bulky materia such as green feed. Dried bread soaked in milk and squeezed dry makes a good feed. In many cases corn bread is used as the feed.

From your description I should feel that there is very little likelihood of this bunch pulling through. A small dose of castor oil to each poult would be advised.

Bulletins of the Week

Pasteurization of Market Milk in the Glass Enameled Tank and In-the-bottle, by T. H. Wright, Jr. Bulletin 203, So. Dakota Experiment Station Brookings, S. D.

Varieties of Corn for South Dakota, by A. N. Hume. Bulletin 204, So Dakota Experiment Station, Brookings, S. D.

Factors Influencing Fat Tests of Milk, by G. C. White and W. D. Burrington. Bulletin 74, Connecticut Agr'l. College, Storrs, Conn.

The Pure-bred Bull Puts Profits in Dairying, by G. C. White. Bulletin 68, Connecticut Agr'l. College, Storrs Conn.

Ergot and Its Control, by Wanda Weniger. Bulletin 176, North Dakota Experiment Station, Agricultura College, N. D.

That Kitchen, by R. K. Willard Circular 63, North Dakota Experiment Station, Agricultural College North Dakota.

Trench Silo for North Dakota, by R. C. Miller. Circular 62, North Dakota Extension Divisions, Agricultural College, N. D.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Obstructed Vagina

In the young mare one sometimes finds a fold of mucous membrane on each side of the opening of the urethra or urinary passage and it considerably lessens the caliber of the vagina. In rare cases it may prevent successful service by the male. The fold of membrane in the mare is termed the "hymen". We have met with an even more aggravated condition of the vagina in a few heifers that did not conceive when bred. The folds of membrane practically occluded the passage, its corrugations doubling upon themselves and forming a web across the vaginal opening. There is little printed on this subject in available literature, but it was spoken about many times by the late Dr. Henry Thompson of Aspatria, England, who had one of the largest veterinary practices in Cumberland. He was also a wonderfully practical and successful veterinarian, a splendid business man, a great organizer, and extension worker in his district, beloved, respected, and trusted by every dweller there, rich and poor, and continued in active practice almost up to the time of his demise when over 80 years of age. This veterinarian of the old school was also an instructive lecturer on veterinary subjects in the agricultural college of Aspatria and published his lectures in book form.

In that notable work we find a most interesting account of the condition of the vagina we have mentioned and its effect in causing sterility. He wrote that the condition, strange to say, was most commonly met with in heifers of white color. He lived in a district where dairy Shorthorns predominated. Most of them were of old Booth breeding. Only one case of the sort was met with in a colored animal and she was a light roan. Not until a heifer had been served did the condition become apparent. The symptoms developed in twelve hours to six weeks after service; most of them in twelve to twenty days. Elevation of the tail and straining as if to calve drew attention to the condition. There may be prolapse of the rectum and forcible ejection of bloody feces. The hand introduced into the rectum discovered its floor pressed upward by a swelling. Examination of the vagina found the obstruction there "immediately in front and above the neck of the bladder". Evidences of penetration of the membrane by the male organ were also found. The fluid held in by the membrane was liberated by inserting a trocar and canula, its escape being very much assisted by passing the hand into the rectum. Dr. Thompson, in this connection, added: "I have also operated upon animals that have not been served (one case being that of a white heifer 9 months old); the fluid in these cases is like dirty, milky whey with a very fetid smell, while in those that had been served the fluid was of a dirty, brown color, with a "stink" resembling that of a decayed cleansing" (afterbirth).

The condition referred to here is worth remembering as concerns heifers that have failed to conceive when bred and may have been met with by some of our veterinary readers. It seems much like the collection of fluid in the pouch of Douglass mentioned in a previous article, but that fluid has not a fetid odor. The coincidence relative to white animals being most often affected is of considerable interest and, as to that, Dr. Thompson's assertion is beyond question.

Bloated Calf

I have a registered Jersey calf five months old that stays bloated all the time, even when I keep her up in the stable; seems to be hearty and eats well, but hasn't much life and vim. When she lies down you can hear her teeth grinding together. This heifer has been this way about two months.

Centreville, Tenn. N. H.

The calf is afflicted with chronic indigestion. In some instances swallowed foreign bodies or hair balls in the stomach are the cause. Give the calf a full dose of castor oil and when it has acted mix in each pint of milk fed daily one teaspoonful of a mixture of one-half an ounce of formalin (40 per cent formaldehyde solution) and 15½ ounces of boiled water. Increase the amount of formalin if the bloating persists. Allow access to salt, chalk, and powdered wood charcoal. Lime water may be mixed freely in the milk if formalin does not prove remedial.

Obstinate Wound

I have a six-year-old mule that hurt his hind leg on a plow beam last spring. The wound is on the back part of the leg and was only a small cut at the time but caused considerable lameness. A growth came on it which I have had cut out twice and bound pulverized blue vitrol on it for several days without being able to stop it. Our veterinarian does not seem to be able to cure it. What do you advise?

Lineville, Ia. E. D. C.

It is quite likely that the bruise shattered or cracked shell bone of the leg at the point where the wound occurred and that the affected bone is now diseased and preventing healing. The veterinarian should probe for and remove loosened affected bone, curette the wound, disinfect it well and then treat as a common wound until healed. If no such cause is found present, wet the wound 3 times daily with a lotion composed of 1 ounce of sulphate of zinc, 2 drams of chloride of zinc, ½ a dram of dilute hydrochloric acid, and 8 ounces of soft water. Tie the mule so that the wound cannot be rubbed.

Barrenness

I have two Holstein cows that come in heat regularly and yet I cannot get them with calf. I have tried different breeds of bulls but they all fail. The cows are not very old yet. Is there anything I can do to fix them up?

Michigan City, Ind. P. P.

As the causes of failure to conceive when bred are many and different, there can be no one specific remedy in such cases. In many of them an infected condition of the neck of the womb (cervix) or womb proper (uterus) requires special local treatment by an experienced veterinarian. In other cases growths in the vagina, or an abnormally closed, hardened, or twisted condition of the cervix require the attention of the expert. Fat cows need reducing and thin building up to establish conditions favorable to conception. Until a veterinarian can be employed flush out the vagina of each cow three or four times a week with a gallon of blood warm boiled water containing two tablespoonfuls of pure phosphate of soda.

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- Friendlesshead White Lily. 4 yr. old record 10,290 lbs. milk—3.96% fat)
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- Baron's Best of Bargenoch. A. R. 126 (Half Bro. Gay Cavalier)
  - Bargenoch Durward Lily
  - Bargenoch Snowdrop 3rd. (Dam of Bargenoch Magnificent)
- Polly Puss 2nd.A. R. No. 354 (Jr. 2, 11,060 lbs. milk—4.17% fat)
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AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

SARNIA FARM

—Cherub Guernseys—

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

CHAS. L. HILL & SON
Rosendale Wisconsin

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

Summer Bargains In Guernsey Bulls

Midsummer price reduction sale of Registered Guernsey males, calves and yearlings, May Rose breeding, mostly from A. R. cows. Federal Accredited herd.

RICHARD F. KLEMM, Baraboo, Wis.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

We Offer For Sale Young Bulls, Cows and Heifers

I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.

W. R. DUNLOP, ELBRIDGE, NEW YORK

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

DISPERSAL SALE!

Egypt Mills Guernsey Club

Cape Girardeau, Mo., October 7-8

The Egypt Mills Guernsey Club is a corporation founded in 1919 to develop and promote the breeding of pure-bred Guernseys in Cape Girardeau Co., Missouri. The cattle used as a foundation were imported from the Islands and purchased in Wisconsin. The contract on which the cattle were placed with the farmers called for the dispersal of the entire foundation and increase at the end of five years' time. The five years is up and the cattle will be offered for sale at above named time and place. Included in the lot are many cows with A. R. and Cow Test records, many cows untested but capable of large records, 20 or more young bulls and a large lot of fine heifers.

The club was most fortunate in securing as a herd sire Eminent of Sarnia 32963, one of the great sires of the breed whose first 9 daughters tested averaged 566.6 lbs. fat in classes GG, G, G, EE, E, E, FF, D, and D. One of these sold for $5,000. There are over 70 daughters of Eminent in this sale, and most of the heifers not his daughters are his granddaughters.

Eminent of Sarnia will be in the sale, and is in fine condition and a regular breeder. This will be a wonderful opportunity to pick up foundation Guernseys that you know will be great producers.

FOR CATALOGS Address —

CHARLES L. HILL, Sale Manager Rosendale, Wisconsin

CORIUM FARM GUERNSEYS

Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys.
We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.
Send For New Price List

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

GUERNSEYS and HOLSTEINS, For Sale

We have from 100 to 500 high grade and registered cows and heifers for sale at all times. Also choice registered bulls of each breed. These cattle come from the best herds in western Wisconsin. They are selected from the largest federal tested territory in the state and are assembled in the largest and most sanitary sale barn in the northwest.

West Salem is on the main line of the C. M. & St. P. and of the C. & N. W.

Write us or better still come and select just what you want.

O. G. CLARK & CO., - - - - WEST SALEM, WISCONSIN

EL JANE GUERNSEYS

ARCADIA, MISSOURI
(85 miles south of St. Louis)

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.

Federal Accredited EL JANE FARMS, - Arcadia, Missouri

Your Next Herd Sire Must Keep On Improving Your Herd



ANTON'S KING CONFIDENCE 43517

We sell our bull calves—sons of Anton's King Confidence and Bonanza of K. P. at a reasonable figure. Write us before you buy.

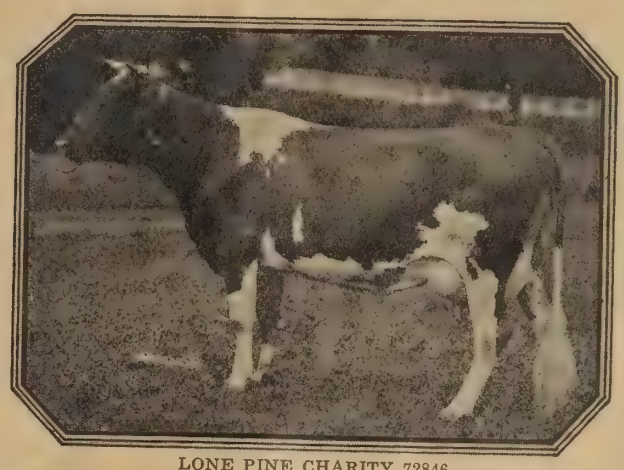
Federal Accredited Herd

Hoard's Dairyman Farm, Ft. Atkinson, Wis.

Famous Lone Pine Guernsey Herd

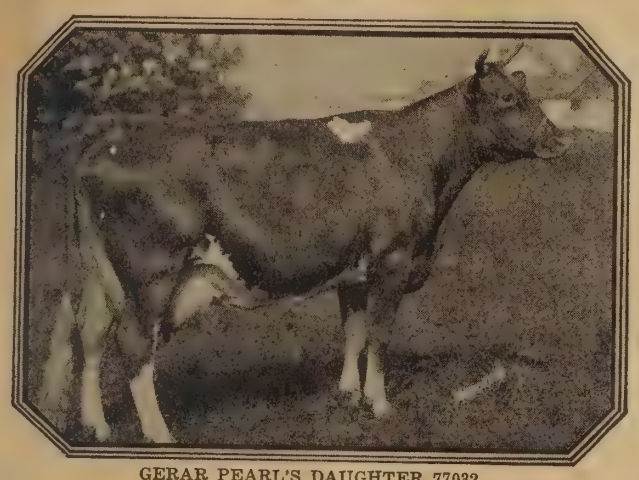


LANGWATER CHARITY 38605
First prize National Dairy Show, 721.54 lbs. fat.

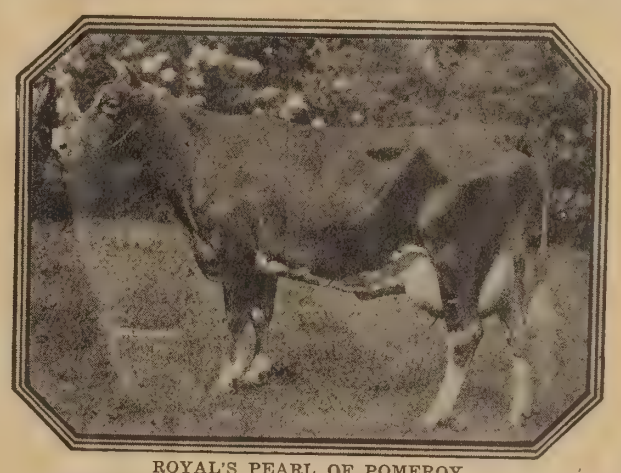


LONE PINE CHARITY 72846
The highest record daughter of Langwater Warrior, 831.56 lbs. fat.

To be Sold at Public Auction



GERAR PEARL'S DAUGHTER 77032
884.76 lbs. fat.



ROYAL'S PEARL OF POMEROY
First prize National Dairy Show, 1921. 684.97 lbs. fat, Class G. Under retest, expected to go over 800 lbs.



LONE PINE MOLLIE COWAN 91285
703.81 lbs. fat, Class G. Under retest is expected to head Class BB. First prize National Dairy Show, 1922.



ULTRA LADY OF UPLANDS 96383
FIRST PRIZE NATIONAL DAIRY SHOW, 1923

Dispersal Sale . . *At Chicago Guernsey Farm* . . Hinsdale, Ill., Oct. 3

Great Producers — National Dairy Show Winners. No Better Lot of Cows Ever Offered
Fed. Accredited Herd. 29 Cows with Records that Av. 636 lbs. fat. Fashionable Breeding

Some of the Record Cows

- LADY'S HOPE OF MAPLE HILL (44843)—936.68 lbs. fat.
- LONE PINE CHARITY (72846)—831.56 lbs. fat
- GERAR PEARL'S DAUGHTER (77032)—884.76 lbs. fat
- LANGWATER CHARITY (38605)—721.54 lbs. fat
- LONE PINE MOLLIE COWAN (91285)—703.81 lbs. fat. Under retest should head class BB
- ROYAL'S PEARL OF POMEROY (89612)—684.97 lbs. fat. Under retest will go over 800 lbs. fat

Some of the Show Cows

- LONE PINE MOLLIE COWAN (91285)—1st prize National Dairy Show 1922
- ULTRA LADY OF UPLANDS (96383)—1st prize National Dairy Show 1923
- ROYAL'S PEARL OF POMEROY (89612)—1st prize National Dairy Show 1921
- LANGWATER CHARITY (38605)—1st prize National Dairy Show 1914
- MA CHERE PRINCESS (65246)—2nd prize National Dairy Show 1922

This herd, the property of H. L. & F. D. Stout, Mikana, Wis., will be sold due to the death of the Junior partner, Henry L. Stout

FOR CATALOGS ADDRESS--- **Charles L. Hill, Sale Manager** **Rosendale, Wisconsin**

Contentment on the Farm

(Continued from first page)

things. I call a stone or rail fence far more attractive from a beauty standpoint than any that is made of iron. A weathered log is by no means unattractive and you would not dream of painting it. I have seen weathered buildings that were frightfully ugly and others that were attractive. The same remarks would apply to those that were painted. A well dressed woman is dressed in an inconspicuous manner. She is natural, there is nothing sensational about her. So I think that the Crimson Ramblers, because they are sensational, are worse than failures, in large numbers at least. Along my fences I am content to see the trees of my own country grow, and if the brown eyed susans, hazel nut, and wild strawberry accompany them, I am the more content. If a hawthorn is there, so much the better, for maybe the birds will like the combination.

As to the grass in your lawn, I like it far better when it isn't cut than when close shaven. Trees I would have, the more the better; big, stately, rugged ones in natural groves. It would not hurt to have both deciduous and evergreen sorts and the smaller but graceful shrubs and bushes beneath or around the big fellows. If some produce seeds for the birds, so much the better, and if some wild flowers come in, that is also good.

The reason why some of us are contented may be because we have so many of these beautiful forms of life around us. If all of us would think about the matter a little, I believe that wonder and gratitude for these things would fill our very souls.

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

JERSEYS

Serviceable Bulls
From R. M. Dams

We have 2 or 3 very good young bulls from dams with records up to 500 lbs. butterfat made on 2 milkings a day. They are sired by a son of Golden Fern's Noble and a half brother to Fern's Wexford Noble 1922-1923 "National" grand champion.

Have also a few heifer calves for sale.

EASTON FARMS
1305 Cass Street, La Crosse, Wis.
Federal Accredited Herd

Young Bull of Serviceable Age
and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

6 JERSEY BULLS
2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Meredith Jersey Farm
SHOW HERD WINS AGAIN

We have a small group of animals on the show circuit again this year and they have been doing fine. Up to date we have shown at seven Fairs in the Middle West and have won

6 GRAND CHAMPIONSHIPS—12 CHAMPIONSHIPS — 54 FIRSTS

Our young stuff by our herd sire, FINANCIAL BEAUTY'S KING, 132904, Silver Medal Sire, has done exceptionally well.

We have some bull calves by this sire — also some by FASHIONABLE FERN LAD, 163968, twice Grand Champion at the National Dairy Show and winner of numerous other championships—that we are offering for sale at very reasonable prices. Some of them are out of dams with good Register of Merit records.

These calves will win for you, not only in the show ring, but by increasing the production of your herd.

Write us for a descriptive list with prices.

Meredith Jersey Farm
Des Moines, Iowa

For Sale
REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS
Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

CEDAR CREST FARMS
FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

Belswood Farm Jerseys
Four choice bulls, 5 to 12 months of age, all out of Register of Merit dams. Accredited herd.
A. F. BLOCK, Mgr. Norwood Park, Ill.

DISPERSAL SALE!
50 HEAD JERSEYS - 50
Fair Grounds, Austin, Minnesota
WEDNESDAY, OCT. 15, 1924
J. R. Woods and L. B. Hanna

High record cows and their progeny. Several high class bulls from R. of M. dams. U. S. Accredited Herds. Financial King and Noble of Oaklands breeding.

For Catalog Write
B. C. SETTLES, Sales Manager, St. Louis, Mo.

FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

Jersey Bull Calves
We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.


Raleigh's Torono's Meme 544207
16085 lbs. milk 902.15 lbs. fat.

World's Championship Blood
We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.

HERD ACCREDITED SHERMAN JERSEY FARM, Charles City, Iowa

HOLSTEINS

30 Extra Fancy Grade
HOLSTEIN COWS
Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.

36-lb. Breeding
back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.
ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

Bargains in Registered HOLSTEIN BULLS--- all ages
Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.
Hargrove & Arnold, Norwalk, Ia.

REGISTERED HOLSTEINS
GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

10 Ormsby Cows — Several Excellent Young Bulls
I am offering for sale 10 good Ormsby cows sired by a grandson of S. P. O. M. They are from 4 to 7 years old and are fresh or due shortly. The bulls are exceptionally good calves priced to move quickly. This is a clean herd.
C. J. WILL TEMPLETON, WIS.

Buy HOLSTEINS in JEFFERSON CO.
1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

OUR HERD SIRE
Toyon Galaxy Model Segis
is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

GRADE HOLSTEINS FOR SALE
We have for sale several carloads of excellent grade heifers due in October at $75 each and top notch cows also due in late September and October at $100. These are exceptionally good ones,—productive and healthy. RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec. Randolph, Wis.

SAUK COUNTY HOLSTEIN ASS'N.
Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
N. T. GILL, Sec'y., Reedsburg, Wis.

Before You Buy A Bull!
Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms
(In Waukesha County)
F. J. Southcott, Manager, Dousman, Wis.
Clean herd under State and Federal Supervision

ORMSBY, PIETERTJE, JOHANNA BRED FEMALES
One is a daughter of Beauty Pietertje Prince, and ½ sister to the dam of Segis Pietertje Prospect, who established a world's milk record.

We are offering these 8 registered Holsteins for $1,700 to move them quickly, not having stable room to winter them. They are good individuals, well grown, from heavy producing, Advance Registry breeding and tuberculin tested herd. Can also furnish a car of grade cows and heifers, and an evenly marked 1½-year-old bull.

Look these up while attending the Dairy Show at Milwaukee.

PEE CEE BEE STOCK FARMS,
1701 Wisconsin St., RACINE, WIS.
Tel. Jack. 6997R

Walcowis Farms
OFFER—
Desirable grandsons of Iowana Sir Ollie, sired by Sir Ollie Mooie Watson and North Star Gift Champion. Dams have records up to 32 lbs., also good year records. Write or visit us.
WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wisconsin.

Choice Dairy Cattle
FOR SALE—200 head of the very best Holstein and Guernsey cows, heifers, 4 to 8 weeks old calves at reasonable prices. Write the
WHITEWATER STOCK FARM
Whitewater : : Wisconsin

OHIO HOLSTEINS FOR SALE
Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Oatman Farm Holstein Herd
Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.
O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS
Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.

National Dairy Show Sale
Grade HOLSTEIN, GUERNSEY and JERSEY COWS with
Cow Test Association or Semi-official Records
National Dairy Show, Milwaukee, Wis., Sept. 30, Oct. 1-2, 1924

Every cow consigned must have a C. T. A. or semi-official record of at least 250 lbs. fat as a two-year-old or of at least 350 lbs. if 3 years old or over.

All will be tuberculin tested just before sale by competent veterinarian and all will be examined by a competent veterinarian just before sale and his statement of condition of pregnancy will be announced at time each cow is sold. It is expected that there will be 200 head of these cows and bred heifers sired by pure-bred bulls out of C. T. A. cows.

Committee in charge of the sale is Charles L. Hill, W. L. Baird, and Glenn Vergeront.

For catalogs address

CHARLES L. HILL Rosendale, Wisconsin

Wisconsin Dairy Show Sale

—TO BE HELD AT—

Waukesha, Wis., Mon., Oct. 6

FOLLOWING DAIRY SHOW

Some of Wisconsin's Outstanding Holsteins

The following daughters of Matador Segis Walker: A 21-lb. 3-yr.-old; a 2-yr.-old daughter of a 30-lb. cow, with over 1,000 lbs. for the year; 2-yr.-old, from a dam with 800 lbs. butter, 20,000 lbs. milk as a 2-yr.-old; first calf heifer, with over 24 lbs., bred to Carnation Segis Prospect; a good record daughter of a 35.83-lb. cow, and bred to Carnation Segis Prospect.

Two granddaughters of Matador, bred to a Homestead bull; one from a 26-lb. dam.

A fine 30-lb. cow; a 29-lb. cow; a 27.39-lb. cow and her two daughters; a 23.73 daughter of King Pontiac of Brothertown; a 16-lb. daughter of a 30-lb. cow, next dam, 35 lbs.; a good record daughter of King Superba; a 20-lb. 2-yr.-old, due right after the sale to King Bess 6th; a 2-yr.-old granddaughter of Count and from the foundation cow, Pauline Aaggie Grace, 31.50 lbs.

A daughter of a 29-lb. cow, and from a 41-lb. sire—a beautiful heifer, due right after the sale.

An outstanding daughter of Creator, from a 32-lb. 3-yr.-old dam, next dam 34 lbs. In calf to the Prilly bull.

Two daughters of Marathon Aaggie, bred to the 42-lb. bull, King Bess Burke Ormsby.

A daughter of King Bess Burke Ormsby, bred to a son of Iowana Sir Ollie.

Daughter of Bairdland Segis Sirprize, bred to a full brother to the Grand Champion bull at Wisconsin.

Three full sisters sired by Sir Bess Ormsby Fobes and from a Twice World's Record dam. Two bred to Creation. Wonderful offering. Chance for foundation herd.

A 35.83-lb. foundation cow, with following records: 21 lbs. 2 yrs., 28 lbs. 3 yrs., 33 lbs. 5 yrs., 35.83 lbs. 6 yrs., and nearly 1000 lbs. in a year. Two of her daughters in the sale also.

Son of Sir Pietertje Ormsby Mercedes 41st. From a 30-lb. 4-yr.-old daughter of Iowana Sir Ollie, with nearly 1000 lbs. for the year. A classy calf and lots of breeding.

A son of Marathon Aaggie, from a 33-lb. 4-yr.-old State Record daughter of King Bess Burke Ormsby.

A 30-lb. son of Sadie Johanna Korndyke King.

A 27-lb. grandson of King Segis Pontiac Count.

A Wonderful Bull Calf—sired by Carnation Segis Prospect. From a 30-lb. 3-yr.-old daughter of Matador Segis Walker, now on year work and making a dandy record.

A Long Distance grandson of Sir Pietertje Ormsby Mercedes. His dam, a 945.71-lb. 2-yr.-old, is a granddaughter of King Segis Pontiac Count.

Sale Under Auspices of

Wisconsin State Holstein Association

Write for Catalog to F. H. EVERSON, Mgr., Lake Mills, Wis.

A YEARLY RECORD HERD

ne Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one onth to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of tter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

OHN H. PULS - - ALLENTON, WIS.

OUR HERD SIRES

Michigan State Herds have 15 sires in service whose dams have records from 30 to 36 lbs. butter in 7 days. The list includes:

A SON OF WISCONSIN FOBES 6TH, the cow that sold for $6,800.00 in the Erickson Sale.

TWO SONS OF CHAMPION ECHO SYLVIA PONTIAC, one from a 36-lb. cow, the other from a 34-lb. 3-year-old.

A 35-LB. SON OF DUTCHLAND CREAMELLE COLANTHA LAD.

A 30-LB. SON OF KING OF THE PONTIACS.

Nine of these bulls are from dams with yearly records ranging from 900 to 1,147 lbs. butter. A FEW CHOICE YOUNG BULLS FOR SALE.

BUREAU OF ANIMAL INDUSTRY

Department B Lansing, Michigan

200 Carloads of Holsteins

ur motto for this year. We can supply with as many as you want. Carload lots specialty. Fine selection, courteous ser-, and reasonable prices. Less than one-of one per cent T. B. Home of the ld's Greatest Bull Association.

/INGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
J. Hoover, Secretary Howell, Michigan

ichly Bred Holstein Bull Calves

of A. R. dams and sired by our two richly bred sires—King Piebe Ormsby Mercedes, a 35-lb. son r Korndyke Bess and every dam in pedigree over s. and King Pietertje Mercedes Ormsby, a son r Pietertje Ormsby Mercedes and out of a 19-lb. r two-year-old dam.

tuberculin tested. Write for information or herd.

P. FROST SPAULDING FARM CO
Spaulding, Mgr. Warren, Minn.

rahamholm Herd

are using Dutchland Creamelle Colantha and Duke Pietertje Korndyke Ormsby ur select herd of over 100 females. We a few serviceable sons and grandsons Dutch" and some of "Duke" for sale: some calves that will soon be ready for ce.

GRAHAMHOLM FARM,
Twentyman, Manager Rochester, Minnesota

en writing advertisers please mention d's Dairyman.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, pure-bred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

Iowana Ona King Pietertje

Born July 25, 1923

A son of Meadow Holm Ona Hartog King, and from a daughter of Sir Johanna Fayne. His dam has a good two-year-old record and is dam of a 950-pound junior three-year-old.

Bull is three-fourth white and a fine individual.

Send for pedigree and particulars.

IOWANA FARMS (*Herd under Fed. Supervision*) Davenport, Iowa

The Home Farm Dispersal

At the Farm --- OCTOBER 14th --- Chapin, Iowa

This entire herd—established since 1881—to be sold, 65 head, federally accredited, with A. R. O. records up to 36 lbs. for 7 days and 1100 lb. for the year. Watch for later announcements.

W. B. BARNEY & SONS, Chapin, Iowa

Mankato Holstein Farms Dispersal

OCTOBER 8th and 9th

MANKATO, Minn.

Send for Illustrated Folder

125 Quality Ormsbys

One of the greatest Ormsby herds in the world. Built up on the blood of Sir Pietertje Ormsby Mercedes and Ormsby Korndyke Lad. the only two sires in the world having sixteen 1,000-lb. daughters.

OVER 100 FEMALES—including several with records over 1,000 lbs. butter in a year. Real foundation cattle.

20 MALES—including the herd sires and other quality bulls of record breeding. Herd sires for any herd.

Premier Exhibitor's Herd at 1924 Minn. State Fair

TWIN CITY PEDIGREE & SERVICE CO., Sales Mgrs., 211 Market Bank Bldg., MINNEAPOLIS, MINN.

Dr. H. P. Fischer Dispersal

(MUDCURA SANITARIUM)

70 REGISTERED HOLSTEINS

SHAKOPEE, MINN. OCTOBER 11th

Because his time is so completely taken up by his duties as head of Mudcura Sanitarium, Dr. Fischer is unable to give his splendid herd the necessary time. For this reason he is announcing a dispersal of his herd.

A Truly Sensational Offering ---

Including the highest year-record cow ever offered at auction, PRINCESS AAGGIE POLKADOT DE KOL, 1399 lbs. butter from 34,070 lbs. milk in a year. Several sisters with high records also selling. *Her son, Duke's Mixture,* a 3-year-old show bull by Duke P. K. O., will also be sold, together with several of his daughters.

See the show herd at Waterloo and National Dairy Show

SEND FOR ILLUSTRATED FOLDER

TWIN CITY PEDIGREE & SALES CO., Sales Mgrs. 211 Market Bank Bldg., Minneapolis, Minn.

A YEARLY RECORD BULL --- Ready for Heavy Service!

BORN JANUARY 23, 1923

We offer one of the good sons of SIR WALKER SEGIS HOMESTEAD, (a proven show bull with 32 A. R. O. daughters) who is a son of "PIEBE" out of a 1230-lb. world record daughter of "COUNT." His dam as a three year old heifer made 20853 lbs. milk and 753 lbs. butter in 305 days. The two nearest dams of this bull average 991 lbs. butter on long time test. He is quite dark in color, a good individual and priced for a quick sale. Send for pedigree and photo.



Sir Walker Segis Homestead

A. J. LASHBROOK Northfield, Minnesota

A YEARLY RECORD BULL— Ready for Heavy Service

SIR WALKER SEGIS LYONS was born Feb. 19, '22. He is well grown and a good individual. His dam produced 20718 lbs. milk, 823.86 lbs. butter in a year as a 2-year-old. His sire by Piebe Laura Ollie Homestead King is from a 1230-lb. dam with 30814 lbs. milk. Write today for further details if you want a sire with the best of breeding and production. You'll find the price very reasonable.



CARLETON COLLEGE FARMS, Northfield, Minn.

FEDERAL ACCREDITED HERD

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

HOLSTEIN FEMALES FOR SALE

SIX REGISTERED COWS and HEIFERS with good long time semi-official or cow testing association record backing. Write for price list. Federal accredited herd.

B. A. NORRIS, Anoka, Minnesota.

Pierce-St. Croix First Annual Holstein Sale

SEPTEMBER 27th

RIVER FALLS, WISCONSIN



SIR PIET. ORM. DOSSIE
One of the 1000-lb. bulls to be sold.

65 - Registered Holsteins - 65

These cattle have been carefully selected by the sales committee from the many fine herds in Pierce and St. Croix Counties. The purpose of the sale is to better acquaint the public with the quality of the Holsteins being developed in this community.

FEMALES SIXTY FEMALES OF CHOICE TYPE. Practically every one is of breeding age. Several show animals. A large proportion of them are due soon after the sale; several bred to SONS OF SIR P. O. M. 37TH AND SIR P. O. M. 43RD.

MALES FIVE OUTSTANDING BULLS, including a 2-year-old show son of Sir P. O. M. 43rd from a 1015-lb. cow; a 2-year-old son of the 1078-lb. cow, Snooks Nig De Kol. Every one a good one.

Send for Descriptive Folder

TWIN CITY PEDIGREE & SALES CO., Sales Mgrs., 211 Market Bank Bldg., Minneapolis, Minn.

PLAN TO ATTEND THE RIVER FALLS STOCK SHOW, SEPTEMBER 25-26—FREE!

some "Alfalfa Logic"

Let these facts aid your search for lower operating costs

NO farmer expects a profitable stand of alfalfa from thin or acid soils. Sour land may be all right for soy beans and alsike, but all wrong for alfalfa. Likewise, the wrong oil in a motor will give results just as unsatisfactory.

Motors are just as different as soils; just as different as live stock. There isn't any problem on the farm that requires more individual treatment than the lubrication of gasoline motors. Proper lubrication is real economy. Improper lubrication is added expense.

Just because the differences in oils cannot be seen, do not be misled into buying cheap oils. Don't make the mistake of using an oil of wrong body and character. Your *motor* can tell the difference instantly. So can you—in the long run. A single unnecessary repair bill, one part prematurely worn out, and all you've "saved" on cheap oil "goes up in smoke." ***Mobiloil is the cheapest oil at any price.***

Why Correct Lubrication is the Cheapest

Gargoyle Mobiloil is not a gasoline by-product, as cheaper oils nearly always are. The crude stock from which it is made is chosen solely for its lubricating quality, not for its gasoline or kerosene yield. Every batch of Mobiloil is tested to assure its constant high standards and uniformity.

The Vacuum Oil Company has specialized in *correct lubrication* for over 58 years. It maintains a Board of Engineers—twenty-three men who spend all their time analyzing motors under every conceivable operating condition. The one purpose of their work is to determine *the* oil which will give greatest economy in every make and model of automobile, truck, or tractor.

The result is the Gargoyle Mobiloil Chart of Recommendations. For the cheapest lubrication at any price make the Chart your absolute guide. It is shown here in part. If your automobile, motor truck, or farm tractor is not listed in this particular Chart, see the complete Chart which hangs on the dealer's walls. Or write our nearest Branch for our booklet, "Correct Lubrication."

TRACTOR Lubrication

The correct engine Lubrication for the Fordson Tractor is Gargoyle Mobiloil "BB" in summer and Gargoyle Mobiloil "A" in winter. The correct oil for all other tractors is specified in our Chart. Ask for it at your dealer's.

GARGOYLE

Mobiloil

Make the chart your guide

Chart of Recommendations

(Abbreviated Edition)

THE correct grades of Gargoyle Mobiloil for engine lubrication of both passenger cars and motor trucks are specified in the Chart below.

How to Read the Chart: A means Gargoyle Mobiloil "A"; B means Gargoyle Mobiloil "B"; BB means Gargoyle Mobiloil "BB"; E means Gargoyle Mobiloil "E"; Arc. means Gargoyle Mobiloil Arctic

Where different grades are recommended for summer and winter use, the winter recommendation should be followed during the entire period when freezing temperatures are experienced.

The Chart of Recommendations is compiled by the Vacuum Oil Company's Board of Automotive Engineers, and represents our professional advice on correct automobile lubrication.

NAMES OF AUTOMOBILES AND MOTOR TRUCKS	1924 Summer	1924 Winter	1923 Summer	1923 Winter	1922 Summer	1922 Winter	1921 Summer	1921 Winter	1920 Summer	1920 Winter
Amer. LaFrance (Mod.19)	A	A	A	A	B	A	B	A	B	A
" All Other Models	A	A	A	A	A	Arc	A	A	A	Arc.
American Six.	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
Anderson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.	Arc.
Apperson (6 cyl.)	A	A	A	A						
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Atlas	A	A	A	A	A	Arc	A	A	A	Arc.
Auburn (Mod. 6-63)	A	Arc	A	Arc						
" All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Barley Six	Arc	Arc	Arc	Arc						
Bethlehem	A	A	A	A	A	A	A	A	A	A
Buick	A	Arc	A	A	A	Arc	Arc	Arc	A	Arc.
Cadillac	A	Arc	A	A	A	A	A	A	A	A
Chalmers	A	Arc	A	A	A	A	A	A	A	A
Chandler	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Chevrolet (Mods. FB & T)					A	A	A	A	A	A
" All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Cleveland	A	Arc	A	Arc	A	A	A	A	A	Arc.
Cole	A	A	A	A	A	A	A	A	A	A
Col'bia (Det.) (Con't Eng.)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
" All Other Models					A	Arc	A	Arc		
Commerce	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Cunningham	A	Arc	A	A	A	A	A	A	A	A
Dodge Bros.	A	A	A	A	A	A	A	A	A	A
Dorris (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" All Other Models	A	Arc	A	Arc	A	Arc	A	A	A	Arc.
Dort	Arc	Arc	Arc	Arc	Arc	Arc				
Durant Four	A	A	A	A	A	Arc	A	Arc	A	Arc.
Elcar (4 cyl.)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc.
" (6 cyl.)	Arc	Arc			A	Arc	A	A	A	A
Elgin Six	A	Arc								
Fageol Safety Coach	B	A								
" (1½ ton)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
" (2½ ton)	A	A	A	A	A	A	A	A	A	A
" All Other Models	A	A	A							
Federal Knight (¾ ton)	B	Arc								
" " (Model X-2)	A	A	A	A	A	Arc	A	Arc	A	Arc.
" " All Other Models	Arc	Arc	Arc	Arc						
Flint	Arc	Arc	Arc	Arc						
Ford	E	E	E	E	E	E	E	E	E	E
Four Wheel Drive (F.W.D.)	A	A	A	A	A	A	A	A	A	A
Franklin	BB	BB	BB	BB	BB	BB	BB	BB	A	A
Gardner	A	A	A	A	A	A	A	A	Arc.	Arc.
Hanson Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Haynes (6 cyl.)	A	Arc	A	A	A	Arc	A	A	A	A
(12 cyl.)							A	A	A	A
H. C. S.	A	A	A	A	A	A	A	A	A	A
Hudson Super Six	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Hupmobile	A	A	A	A	A	A	A	A	A	A
Indiana (1 ton)	A	A	A	Arc	A	Arc	A	Arc	A	Arc.
" (1½ ton)	A	A	A	A	A	A	A	A	A	A
" All Other Models	A	Arc	A	Arc	A	Arc				
Jewett	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Jordan	A	A	A	A	A	A	A	A	A	A
Kelly-Springfield	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Kline	A	Arc	A	A	A	A	A	A	A	A
LaFayette							A	A	A	A
Lexington (Con't Eng.)							A	A		
" All Other Models	Arc	Arc	A	A	A	A	Arc	Arc	Arc	Arc
Liberty	Arc	Arc	Arc	Arc	Arc	Arc	A	A		
Lincoln	A	A	A	A	A	A	A	A	A	Arc.
Locomobile	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
McFarlan	A	A	A	A	A	A	A	A	A	A
Marmon	A	A	A	A	A	A	A	A	A	A
Mason	A	A	A	A						
Maxwell	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc.
" (Com'l)					Arc	Arc	A	Arc	A	A
Mercer	A	A	A	A	A	A	A	A	A	A
Moon	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Nash Four & Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc.
" (Com'l) (Quad)					A	A	A	A	A	A
" All Other Models	A	Arc	A	Arc	A	A	A	A	A	Arc.
Oakland	A	A	A	A	A	A	A	A	A	A
Oldsmobile (4 cyl.)					A	A	A	A	A	A
" (Model 30)	A	Arc								
" All Other Models			A	Arc	A	A	A	Arc	A	Arc
Overland	A	Arc	A	A	A	A	A	A	A	A
Packard (Eight)	A	Arc	A	Arc						
" All Other Models	A	A	A	A	A	A	A	A	A	A
Paige (Con't Eng.)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
" (Com'l)			A	A	A	A	A	A	A	A
" All Other Models										
Peerless (8 cyl.)	A	Arc	A	A	A	A	A	A	A	A
Pennant Taxi Cab	A	A								
Pierce Arrow (2 ton)	A	A	A	A	A	A	A	A	Arc.	Arc.
" All Other Models	A	A	A	A	A	A	A	A	A	A
Premier	A	A	A	A						
Premier Taxi Cab	A	A	A	A	A	A	B	A	B	A
R. & V. Knight	BB	A	BB	A	BB	A	A	Arc.	A	Arc.
Reo	A	Arc.	A	Arc.	A	Arc.	A	A		
Rickenbacker	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.				
Rolls Royce	A	A	A	A	B	A	B	A		
Star	Arc	Arc	Arc	Arc						
Stearns-Knight	B	A	B	A	B	A	B	A	B	A
Stephens	A	A	A	A	A	A	A	A	A	A
Studebaker	A	Arc	A	Arc	A	A	A	A	A	Arc.
Stutz (4 cyl.)	A	A	A	A	A	A	A	A	A	A
" (6 cyl.)	A	A	A	A						
Templar	A	A	A	A	A	A	A	A	A	A
Westcott (Mod. D-48)	A	Arc.	A	A	Arc	Arc	Arc			
" (Mod. 60)	A	A								
" All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Willys-Knight	B	Arc	B	A	B	A	B	A	B	A
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Yellow Cab	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		

Makes of Engines When Used in Passenger Cars and Motor Trucks

(Recommendations shown separately for convenience)

Buda (Mods. RU, WU)					A	Arc	A	Arc	A	Arc
" All Other Models	A	A	A	A	A	A	A	A	A	A
Continental (Mod. B5)	A	A			A	A				
" (Mod. B2)					A	A	A	A	A	A
" (Mod. 12XD)			A	Arc						
" (Mod. B7)	A	A								
" All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Falls	A	A	A	A	A	A	A	A	A	A
Hercules										
Herschell-Spill'n (Mods. 15, 41, 80 & 91)	A	A								
" All Other Models	A	Arc	A	Arc	A	A	A	A	A	Arc.
Hinkley	A	A	A	A	A	A	A	A	A	A
Lycoming (C Series)			A	A	A	Arc	A	Arc	A	Arc
" All Other Models					A	A	A	A	A	A
Rochester	A	A	A	A						
Waukesha (Mods. Y, Y a&Z)	A	A			A	A	A	A	A	A
" (CU, DU, EU, FU)	A	A	A	A						
" All Other Models	A	A	A	Arc	A	A	A	A	A	Arc.
Wisconsin	A	A	A	A						

Transmission and Differential

For their correct lubrication, use Gargoyle Mobiloil "C," "CC" or Mobilubricant as recommended by complete Chart available at all dealers.



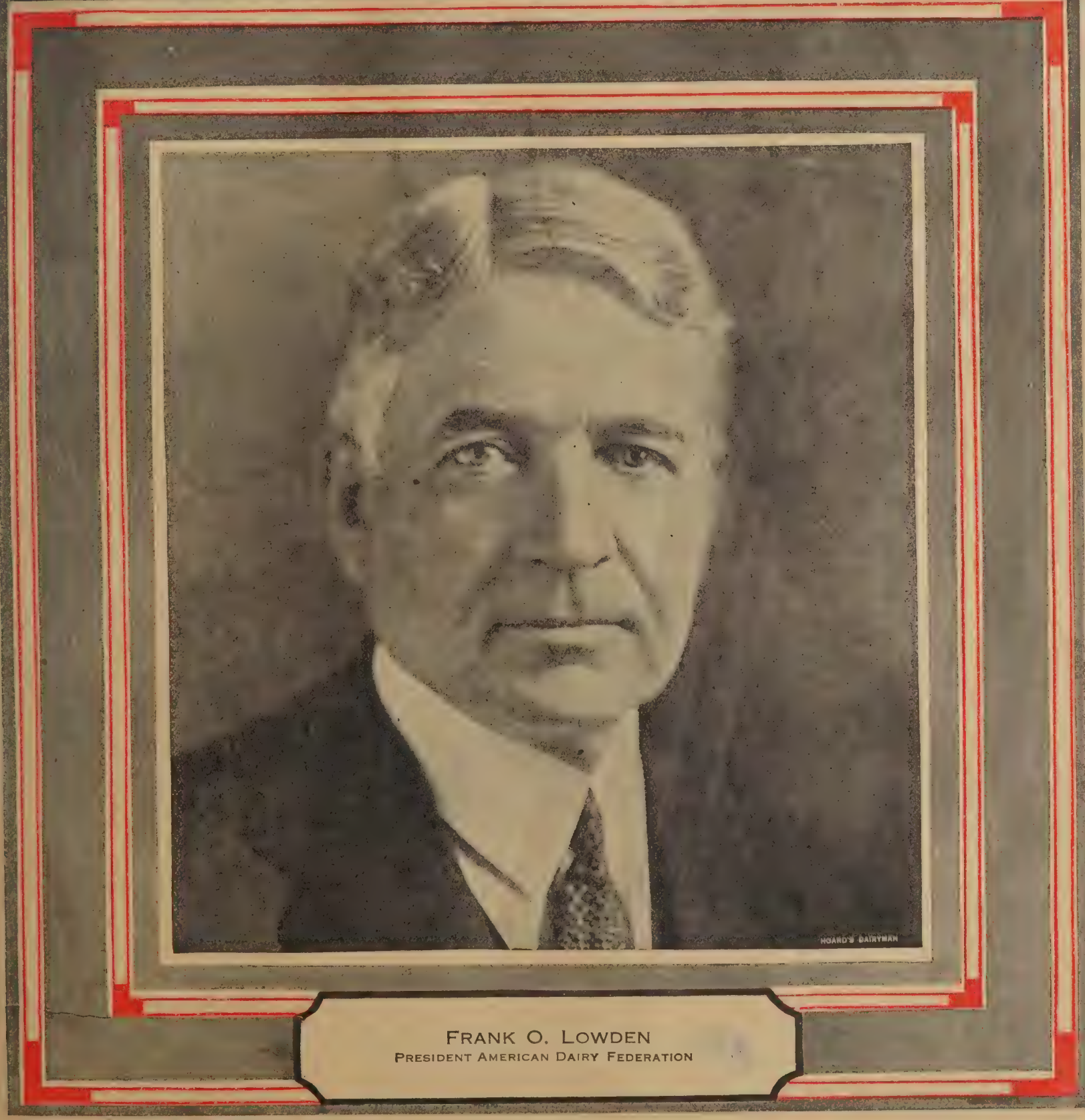
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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



FRANK O. LOWDEN
PRESIDENT AMERICAN DAIRY FEDERATION

Volume LXVIII, No. 11 Fort Atkinson, Wisconsin September 26, 1924

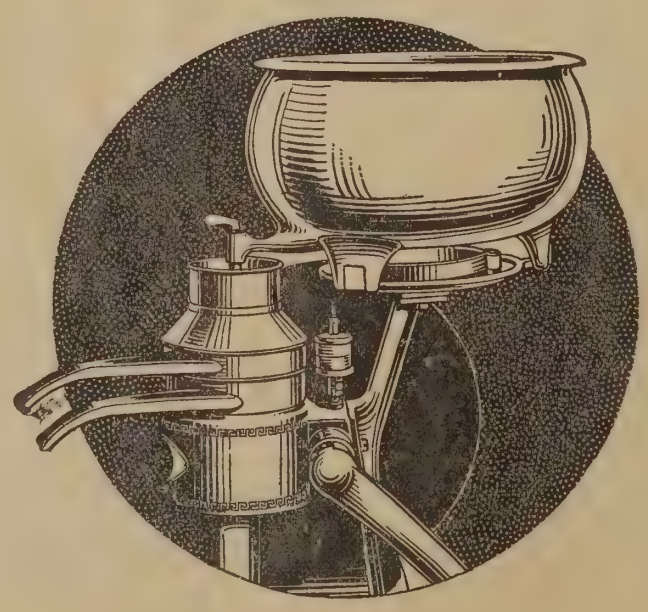
Bigger Cream Checks with an Improved

DE LAVAL

Cream Separator

Thousands of users of the improved De Laval Cream Separators are being agreeably and pleasantly surprised at an immediate increase in the size of cream check or amount of butter money, after putting them to work.

De Laval Separators were always famous for doing that; that's why there are so many more in use. But the new De Laval will skim even cleaner and last even longer. See and try an improved De Laval—not one buyer in a hundred who does that can fail to choose the De Laval.



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61 Beale Street

HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., SEPTEMBER 26, 1924 Number 11

EVER FAILING OR NEVER FAILING PASTURE

Summer Key to Dairy Profits

Part 13.

WILBER J. FRASER, University of Illinois

THE object of the farmer is to make money. It is not to produce the greatest quantity of product possible, but rather to produce it in such an economical manner that he will make the greatest profit. If a dairyman could by any means go into the city and contract his year's supply of milk at 15 per cent above the market price, it would be hailed as a marvelous achievement and in most cases would more than double his profit. It would be practically impossible to raise one's selling price so greatly, but there is another way to increase his profit just as much—even to doubling it—and that is to reduce the cost.

It is neither impossible nor difficult to reduce the cost of production on the average dairy farm, and these articles have endeavored to make plain one of the greatest means of economy in dairy farming today. The problem of profitable farming is a complex one and holds many uncertainties. A number of the factors may seem quite beyond the farmer's control, or may take years of organized effort to yield him fair returns. But here within his immediate reach is a sure measure of relief. He can work it out unhampered in his own particular field and without going off his farm.

The men who are able to cut their cost of production the lowest without reducing either the amount or the quality of the product are the ones who will have the most left for profit after expenses are paid and they are the most successful. *The cost of production is equally important with the quantity of the product produced or the price received for it when it comes to determining profits.*

The Feed is Fifty Per Cent of Cost

Dairy farming involves so many operations that the cost of production is necessarily great, and since the feed cost for the year is over fifty per cent of the total cost of the milk, there is large opportunity for saving in this rspect. The saving of even a small percentage of this feed cost means a large saving in dollars and cents. And as the natural pasture season covers half the year, it is plain that a reliable, high yielding and economic pasture cuts a big figure in the year's feed and becomes a gigantic question in economic milk production. The search for such a pasture crop has been strangely overlooked by both dairymen and experiment stations.

Greatest Failure at Time of Greatest Growth

The failure of bluegrass pasture has been little realized. Men have thought that when cows were on pasture they were well fed. The green glamour of bluegrass in the spring invoke a simple faith that it will live forever. But the pasture experiment conducted at the University of Illinois and reported in the first of this series plainly shows the failure of bluegrass pasture the last two-thirds of the summer, and this agrees well with common farm observation. Our immense corn crop is practically produced in these three months, when the factors of nature are so combined as to make the greatest growth. But these natural forces of production go almost entirely to waste on bluegrass pasture at this time because it does not have the depth of roots to withstand dry weather. Therefore cows on bluegrass pasture, instead of being well fed *at this time of greatest natural production, in reality often suffer the worst of any time during the year from lack of feed.*

Blind to Striking Differences

Any dairyman can readily see and realize the difference between the empty manger or a manger with a spoonful of feed in it, and a full manger; but he does not see or realize the difference between a bare pasture of bluegrass and a bounteous pasture of the sweetest and never failing clover.

We have been blind to the difference between a cow filling herself easily in 20 minutes grazing, and her struggles to do the same thing in 20 hours grazing.

When we *have* seen the deficiency of bluegrass, we have gone in blind to make it up without any thought of the cost or of saving land and labor, or of supplying exactly what the cow needs to produce a liberal flow of milk and keep her in excellent health and vigor.

It's the Feed For Half the Cow's Life

The dairyman is driven to look for a pasture that *is* a *pasture. A real pasture is the dairyman's self-feeder.* We would use it for 12 months in the year if we could, but can expect the cows to harvest their feed in the open only half of the year in this latitude. No chances should be taken on the best and surest pasture for that 50 per cent of the time.

The perfect pasture feeds the cow for half her life. Sweet clover pasture comes nearer to filling the bill and filling the cow satisfactorily than any other found so far. It starts a strong, vigorous growth early in the spring, furnishes an even supply of feed throughout the summer by using the old and the new seeding, and it continues its growth in the autumn until severe freezing weather, producing the largest amount of feed per acre.

For the cow's yearly production, for herself as an individual, and for her future production, she must be well fed during this hot period of fly time. There is an advantage here beyond all the savings mentioned, and affecting the whole life and production of the cow. For in many cases the cows lose flesh and reduce their milk flow on short bluegrass pasture in the hot weather; they do not regain either loss in the fall and are in thin and poor condition when they go into the barn for the winter. Under such treatment they never come up to their natural ability and the loss in production extends over a much longer time than the two to four months of short pasture.

The Three-fold Saving

The hundred farmers who have had experience in raising this crop for pasturing dairy cows say that it will produce three times as much feed per acre as will bluegrass. Since three-fourths of an acre of sweet clover pasture and one-fourth acre of corn as a grain supplement will feed a good dairy cow six months, two acres of land are saved over the old system of bluegrass pasture and supplementary barn feeding. In addition it makes an equally great saving of labor in growing and feeding these supplementary crops.

Sweet clover pasture is not only a cheap feed but it is a good feed, furnishing all the requirements needed by the cow for the production of a good flow of milk, and with the addition of a little grain, all the requirements for a heavy flow of milk. It also keeps the cow in excellent physical tone.

This great combination of saving land and labor and cow is what gives sweet clover its great distinction as a pasture crop and in the realm of economy.

Greatest Gate Ever Invented

The manufacturer has striven for economy of production to the minutest detail in every branch of his busi-

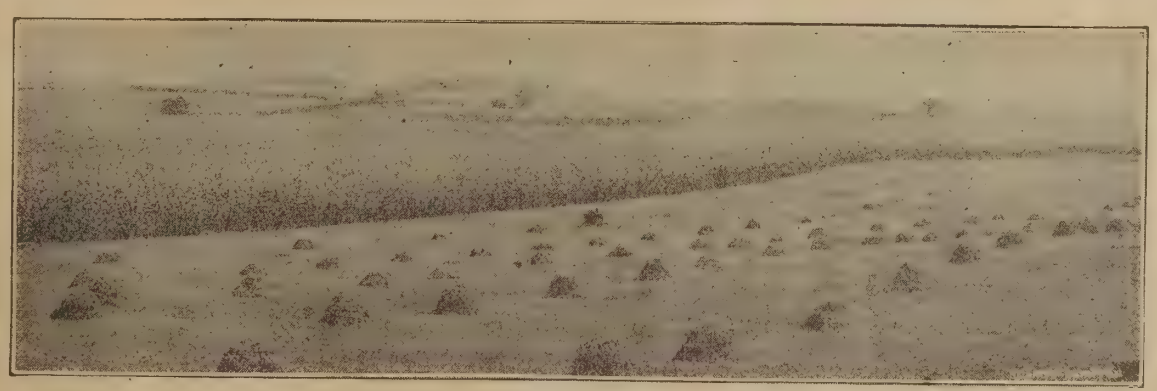
(Continued on page 303)

The Best Feed Combination for a Dairy Herd

The crops and acreages shown below with some grain added for high producing cows furnish an abundance of the best and most economical dairy feeds for the entire year.



SWEET CLOVER PASTURE FOR THE SUMMER SIX MONTHS—THREE-FOURTHS ACRE PER COW



CORN FOR SILAGE AND ALFALFA HAY FOR THE WINTER SIX MONTHS—ONE-THIRD ACRE OF CORN AND ONE-HALF ACRE OF ALFALFA PER COW

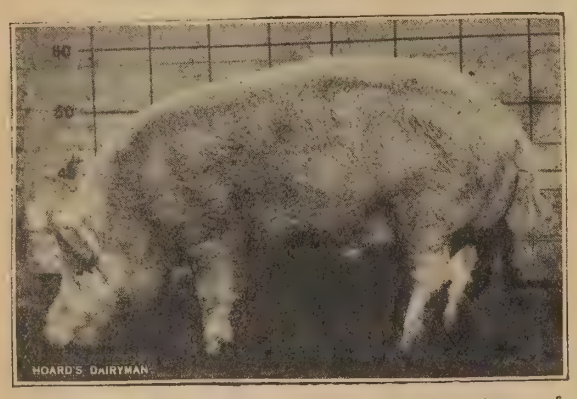
FOOD VALUE OF SKIMMILK

Results of a Demonstration Which Showed Clearly the Wonderful Growth Stimulating Power of Skimmilk

O. E. REED, Michigan College of Agriculture

IN order to show the food value of skimmilk, Reed and Huffman of the Michigan Experiment Station planned a feeding demonstration with four pigs in September, 1922. These pigs were used for a demonstration during Farmers' Week at the college and at other dairy and farm meetings. The results are very striking and much interest has been manifested in them.

Four Yorkshire pigs (litter mates of practically the same weight) were selected for the demonstration. These were divided into two lots, Lot I and Lot II. The pigs were numbered as follows: Pig 1, Lot I—Pig 2, Lot 1—Pig 3, Lot II—and Pig 4, Lot II.



Pig No. 4 in Lot II weighed only 76 pounds at 1 year of age. At this time skimmilk was fed in place of minerals and 5 months later he weighed 350 pounds. Skimmilk brought about a complete recovery of growth which had been delayed for a period of 1 year, due to lack of growth stimulating factors found so abundantly in skimmilk.

Pigs 1 and 2 in Lot I were fed for a period of five months on shelled yellow corn and skimmilk. Pigs 3 and 4 in Lot II were fed on shelled yellow corn and water for the same length of time. Corn was fed in self-feeders and when skimmilk was included in the ration the pigs were allowed only the amount of skimmilk they would readily consume in two feeds per day.

The pigs were weighed every ten days. At the end of five months the pigs which had received shelled corn and skimmilk had made an average total gain in weight of 221 pounds, while the pigs on a ration of shelled corn and water had made an average total gain of only 9.5 pounds. The difference in weight of the two lots of pigs was due to the growing power of skimmilk. There was also a striking difference in the health and appearance of the two lots of pigs. The pigs receiving corn and water had an unthrifty, ill-kept appearance and manifested an abnormal craving for something not present in the corn and water, and whenever possible they would eat small rocks and cinders. On the other hand, the pigs that received skimmilk in addition to corn were the picture of health and appeared perfectly contented with the ration which they were getting.

After the first five months of the demonstration, Pigs 1 and 2 in Lot I were disposed of and Pigs 3 and 4 in Lot II were placed on an experiment to determine the effect of stunting on subsequent growth as well as to demonstrate further the value of milk as a food. Pig No. 3, which was seven months of age at this time and weighed only 43 pounds, was placed on a ration of shelled corn and skimmilk. Pig No. 4, which was the same age and weighed 48 pounds, was placed on a ration of shelled corn, water, and a complete mineral mixture. The reason for feeding one pig on a complete mineral mixture in comparison with the other pig fed skimmilk was to demonstrate the fact that minerals were not the limiting factor which caused the great difference between Lot I and Lot II during the first 150 days of the experiment. A diet of corn and water is low in minerals and such a ration is very low in protein. The skimmilk furnishes minerals, protein, and vitamins, all of which are essential for growth.

At the end of the second five-month period, the pig receiving skimmilk and corn had gained 307 pounds and had overcome the stunted condition in every way, while the pig which had received minerals in addition to corn and water had gained only 28 pounds. The marked difference in the growth of these two pigs again demonstrates the exceptional food value of skimmilk.

Pig No. 4 when twelve months old and badly stunted, as is indicated by its weight of only 76 pounds, was placed on a ration of shelled corn and skimmilk to determine if it was possible for such an animal to recover its growth. At the end of a further period of five months of skimmilk feeding, Pig No. 4 reached a weight of 350 pounds, a gain of 274 pounds, and appeared normal in every way. This gain in weight was not only a gain in body fat, but also a gain by growth of skeleton and muscle.

The following table gives the record of food consumed, weights, and cost of gains of each pig:

Ration	Lot I Pigs 1 & 2	Lot II Pigs 3 & 4
First Five-month Period		
Corn, 78c per bu.	14.1 bu.	9.6 bu.
Skimmilk, 35c per cwt.	5,356 lbs.	None
Total feed cost	$29.75	$7.49
Av. wt. at beginning, lbs.	37	36
Av. wt. at end, lbs.	258	45.5
Av. gain in weight, lbs.	221	9.5
Cost per pound of gain, cents	6.7	39.4
Age, mos.	7	7

Ration	Lot II Pig 3	Lot II Pig 4
Second Five-month Period		
Corn, 78c per bu.	8.1 bu.	5.5 bu.
Skimmilk, 35c per cwt.	5,297 lbs.	None
Minerals, 25 lbs. at 5c	None	25.0
Total feed cost	$24.85	$5.54
Weight at beginning, lbs.	43	48
Weight at end, lbs.	350	76
Gain in weight, lbs.	307	28
Cost per pound of gain, cents	8.0	19.7
Age, yr.		1



These two pigs are brothers from the same litter. The large pig, No. 1 in Lot I, received skimmilk and shelled corn, while the small pig, No. 3 in Lot II, received water instead of skimmilk. Skimmilk made the difference.

Ration	Lot II Pig 4
Third Five-month Period	
Corn, 78c per bu.	14.4 bu.
Skimmilk, 35c per cwt.	2,526 lbs.
Total feed cost	$20.07
Wt. at beginning of this period, lbs.	76
Weight at end of this period, lbs.	350
Gain in weight, lbs.	274
Cost per pound of gain, cents	7.3
Age, mos.	17



These two pigs are full brothers from the same litter. Both were stunted up to 7 months of age on corn and water. At this time the big pig, No. 3 in Lot II, was fed skimmilk in place of water. The little pig, No. 4 in Lot II, was fed a complete mineral mixture in addition to corn and water. Skimmilk produced a wonderful recovery of growth in the large pig. The small pig failed to grow because of a lack of protein which would have been supplied by skimmilk.

Summary

This demonstration shows clearly the wonderful growth-stimulating power of skimmilk.

The addition of skimmilk to the ration of stunted swine not only showed the food value of skimmilk but also demonstrated that animals will recover from retarded growth due to faulty nutrition, if the proper food is furnished in sufficient quantities before the growth impulse ceases.

Milk is almost a complete food, furnishing energy in the form of fat and sugar, a muscle building material in the form of an adequate protein, all the recognized growth and health regulators known as vitamins, and a complete mineral combination for bone building.

Farmers Kill Garlic

That the fall plowing or cultivation method of destroying wild garlic is successful in practically all cases in which the work is carefully done, was further indicated by a recent check-up among farmers who have practiced this method in Knox County, Indiana, according to a statement recently issued by A. A. Hansen of the Purdue University Agricultural Extension Staff.

J. B. McCarty started the method three years ago on a 22-acre field heavily infested with garlic. In spite of the fact that the work was seriously interrupted one season on account of weather conditions, most of the garlic has been eradicated. McCarty plowed the infested field during the fall of 1921, plowing again the following spring. This was followed by corn and the fall plowing was continued during 1922. At present the field is in soy beans.

Nolan McClure succeeded in eradicating a bad stand of garlic by two years of fall and spring plowing, using cowpeas during the summer and rye in the fall. His results were exceptional since at least three years are usually required to destroy wild garlic by this method. The cultivation method consists essentially of fall plowing during November in such a manner as to turn the garlic plants completely upside down, followed by spring plowing and a cultivated crop such as corn, cowpeas, or soy beans, either in rows or broadcasted.

The use of an oil spray for small patches was successfully practiced by B. F. Nesbit, who cleaned out a number of patches on a ten-acre field by spraying with crude oil. In order to get results, it is necessary to apply the oil between mid-April and early May. Further information regarding methods of eradicating wild garlic may be secured by addressing the Purdue University Department of Agricultural Extension, Lafayette, Indiana.

Harvesting Soy Beans

HOARD'S DAIRYMAN:—R. H. Moellering of Clayton County, Iowa, harvests his soy beans with a binder. For seed purposes he waits until the soy bean pods are nearly ripe and about three-fourths of the leaves have fallen off. He makes small bundles, setting them up six or eight to a shock. After they have dried for a week he threshes them with a grain separator, removing the concave and replacing with a blank or a heavy board. They are more easily threshed when a trifle damp, he says. This will keep many of the beans from being cracked. However, it is necessary to spread them out on a floor after threshing to keep them from heating and coloring. They should not be more than six to ten inches deep, either. He recleans them after they are well dried by running them through a fanning mill, taking out all the oversized and cracked beans and feeding them to the hogs as a tankage substitute.

Iowa. A. M. WETTACH.

"All men cannot be *the* best, but every man can be *his* best!

GLENWOOD'S MISS GRETA AND HER FAMILY

LESS than nine years ago, Glenwood's Miss Greta, a Guernsey, was without a permanent home, and Mrs. Oviatt, the wife of the late Dr. Oviatt of Wisconsin, asked for her and her yearling daughter the sum of $500. She was advertised for sale, but no one seemed to want her for her value as a breeder and a producer was unknown. She was offered to Mr. L. B. Stevens, owner of Shoreland Farm, of Wisconsin, and he purchased her, little realizing the bargain he had made when he took her home.

Glenwood's Miss Greta was born October, 1908, and has an outstanding record both in production and reproduction. She has twenty-nine descendants and they were all bred and raised, with the exception of one, at Shoreland Farm in the past nine years. Her descendants consist of six daughters and one son; twelve granddaughters and one grandson; six great granddaughters and two great grandsons and one great great grandson.

Greta, when 6½ years old, was purchased by the Shoreland Farm, Waukesha Co., Wis., in June, 1915, with her last calf, a yearling daughter. She was not in calf at that time. A note of $500 was given in payment for her and it was understood that she was to be paid for with what she produced. The note was redeemed in two years. She has had eight calves in the past nine years. Seven are on Shoreland Farm and one, Shoreland King, an Advanced Registered bull, is the herd sire of Chestermont Farm, Pennsylvania.

It should be noted that in these nine years every heifer calf that was dropped lived and all have been kept in the herd. Every one of her calves has been an exceptional producing animal and of good type. There has been no culling out of her family, or has there been any black sheep among her children. It should be noted how uniform in shape are the udders of these animals, how well the teats are placed, and the strong dairy talent expressed in every one. They all have great capacities, are strong, vigorous animals with good length and depth of bodies, well veined, and good top lines. In short, they all show exceptional dairy talent. Old Greta, herself, after fifteen years of steady working, has an unusual dairy conformation and shows wonderful dairy talent. The length of time she carried her calves in the years she produced her big records will be noted in the explanatory paragraph under the half-tone of Miss Greta.

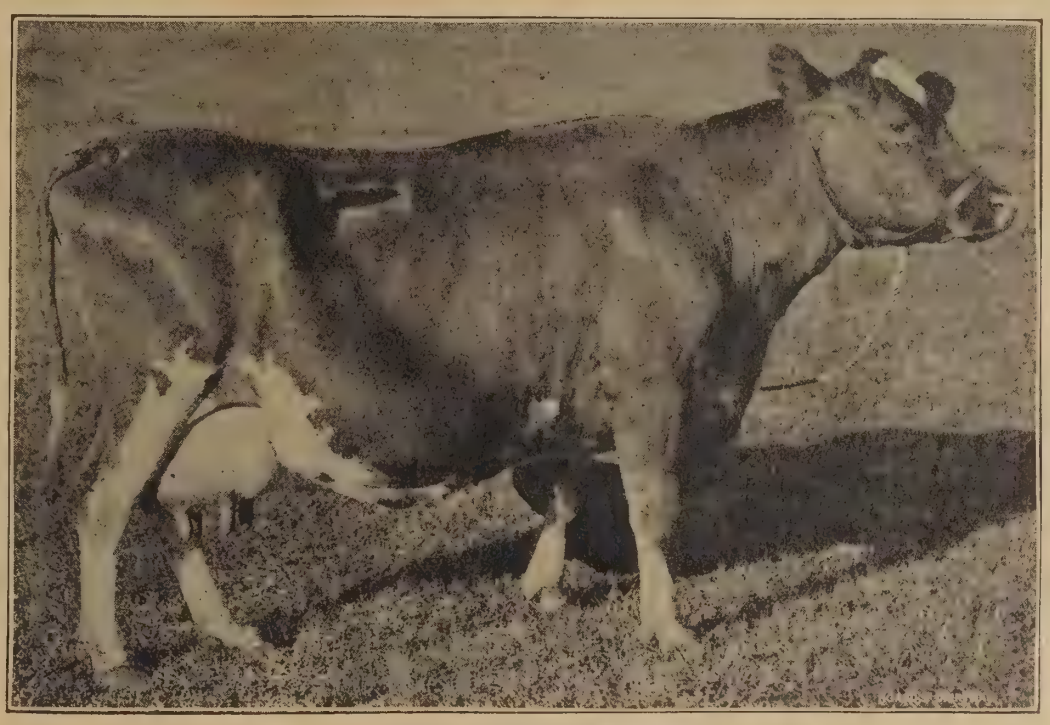
Eleven records produced by herself and the members of her family have averaged 544 lbs. of fat in a year. The best record is by one of her daughters, Guinan's Beauty, that produced 16,555 lbs. milk containing 823 lbs. fat, at the age of nine years and eleven months. Greta's fifth daughter freshened at the age of two years and has produced in 200 days 308 lbs. fat and she has still 165 days before the year is completed. A great granddaughter now on test has made in 145 days 233 lbs. fat. Glenwood's Miss Greta at the age of fifteen years has made in 139 days 245 lbs. fat.

This cow of unusual dairy talent and reproduction and 24 of her female descendants are on exhibition at the National Dairy Show in Milwaukee which begins Saturday, September 27th, and continues until October 4th.

It is an unusual incident when a cow can show twenty-nine living descendants and herself still in good vigor and capable of a high year's record. We have no definite information why some cows will live to be fifteen to twenty years of age and produce strong, vigorous calves each year and do unusually well at the pail. Some cows are old at the age of ten years and have finished their work, but a few will continue beyond this time and without any indications of growing old. There is something about the cells of such animals that are different than the average. Just why the cells of certain cows are capable of carrying on their work for twenty years and others for only ten has not been revealed. We do know that the master breeders have found such animals and have been able to concentrate and perpetuate their blood. There is no breed that has not had some such animal which has contributed substantially to its welfare.

It may be said further that the owner of this cow fed, cared for, and milked her. She has not been forced in her work, for if she had been it is very doubtful if she would be such a regular breeder or would have produced such strong, vigorous calves.

An exhibit of this character inspires thinking and should lead breeders of all classes of live stock to watch out for such blood which should be concentrated and perpetuated in a large number of animals. In other words, let us be alert to the Shakespeares of our dairy animals.



GLENWOOD'S MISS GRETA 29218

8,285 POUNDS MILK, 440 POUNDS FAT AT 2 YEARS—241 DAYS IN CALF
10,474 POUNDS MILK, 516 POUNDS FAT AT 10 YEARS—286 DAYS IN CALF
12,121 POUNDS MILK, 642 POUNDS FAT AT 13 YEARS—288 DAYS IN CALF

This last record is the highest record of the Guernsey breed for this age. Miss Greta is again on test at 15 years of age and in 139 days has produced 240 pounds fat. She was bred May 14 and is considered safe in calf at this time. She is shown again below, at the extreme right of the upper panel, together with 29 of her descendants. The eleven records made by Miss Greta and her descendants average 544 pounds fat, the best record being 823 pounds fat produced by her daughter, Guinan's Beauty.



A HERD OF THIRTY HEAD FROM ONE COW IN NINE YEARS' TIME

This year at the National Dairy Show The American Guernsey Cattle Club will have as one of the feature exhibits the Guernsey cow, Glenwood's Miss Greta 29218, and her 29 descendants.

CHILDREN, OUR GRANDEST CROP

And What the Good Schools of Today Mean to Them and to Agriculture

JOE ALEXANDER, WISCONSIN

THE children of today are the men and women of tomorrow. The little ones that are growing up on our farms now will be responsible for the future of agriculture. To them we must look for future leadership. This has always been true, but until lately the fact was not freely admitted. Only within recent years have farm children come in for their fair share of educational attention. Now, at last, the training of rural children has been placed upon a sound basis. Now we find good schools that really teach not only the essential subjects but modern applied science intended for practical application to farm problems—for this is demanded by parents in every forward-looking community. The "little red schoolhouse" and the one-room log school where the "3 Rs" were taught to the tune of the teacher's ruler is now a thing of the past.

In its place we find well lighted, well ventilated, roomy, sanitary, modern schoolhouses appearing in small villages and even at the cross roads in the country. Consolidated schools with even better and more complete equipment, operated under the supervision of capable teachers, now attract children from longer distances through the medium of school busses. Rural high schools wherein boys and girls are taught live stock care and management, poultry husbandry, soil management, and crop handling, agricultural botany, farm accounting, shop work including carpentry and blacksmithing are now meeting a long felt rural need. For the girls there is cooking, dressmaking, millinery, home decorating, farm health and hygiene, kitchen, gardening, and business management of the farm home. These subjects train the sons and daughters of farmers for the work they will do when they grow up if they stay on the farm. But is that all? No, they do much more. They awaken in every child an active interest in farm work, farm facts, and farm possibilities for profit that is bound to show a marked tendency on the part of those so taught to remain on the farm. Do farmers ever look at the matter in that light? They should. For, if farming is to successfully compete with the lure of the city, farmers themselves must see to it that their children are enabled so to study, so to fit themselves, and so to arrange their day dreams of the future that in every dream picture, every hope, every budding ambition, the farm is always kept in the foreground. But how can that end be accomplished?

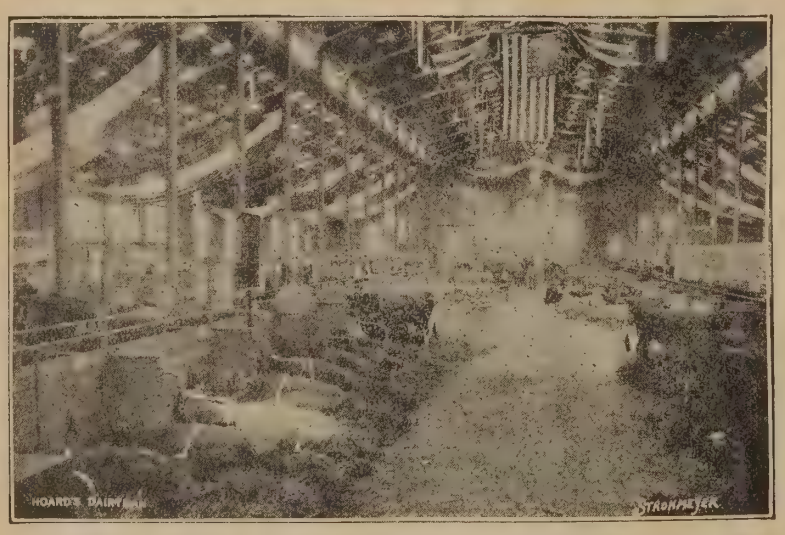
Visit your school. We are willing to wager that not one farmer in ten, perhaps not one in fifty, ever visits the school that his children attend—unless it is when "Maw drags him along to graduation exercises". There is no job that will pay him better than to visit the school, get acquainted with the teacher, see how work is conducted, and how the pupils spend their time. The day is long gone when any farmer can afford to take schools for granted, as he does taxes, election day, and the seasons of the year. The teacher will appreciate the interest you show by making her school a visit. She is doing her best, too often without co-operation, to make her school the very best in the country. She is, as a rule, the most patient, conscientious, underpaid worker of all our nation's salaried wage earners. The country's future citizenship rests in her two little hands. Tied, though they may be by "red tape", quarrelsome school boards tainted with politics or prejudiced and biased by antiquated theories of education, and laboring along on her own inadequate salary, she nevertheless is doing a wonderful work. She is trying to hold her pupils through interest, not through their fear of the hickory stick or the more recent truant officer. When she needs new equipment for this or that, don't turn a deaf ear, then wonder why your children's interest lags. You are not mowing your hay and reaping your grain with a cradled scythe—but grandpa did. No, you have advanced, admitting that times and conditions are changing.

Times have changed in education, too. Changed conditions require more and better "machinery" for school work. See that it is provided. Authorities on the subject tell us that each day's work in school is worth $10 to the pupil. With forty children in her school, see what a load of responsibility each teacher carries every day of the school year! How much more could every child's day be worth with every condition at its best?

The entire school system is in a state of growth. Great changes are coming fast, but all such progress depends upon the intelligence of the public, upon your home folks in every school district. Keep "posted" on school matters. Visit your school. Assure the teacher that you are in sympathy and accord with her ideas, her ideals, and her best efforts. Promise her your wholehearted support wherever the best interests of the school and its pupils are concerned, then give the support you have promised. Do it whether you have children or not. That is good citizenship. Do not wait for somebody else to take the lead; it may never be taken. Remember that better education is the purchase price of better future agriculture.

GRAND CHAMPIONS AT MICHIGAN STATE FAIR

The Diamond Anniversary of This Fair Was Celebrated at Detroit



INTERIOR OF THE COW BARN SHOWING THE CATTLE ON EXHIBITION



JERSEY COW, TOFFEE, OWNED BY S. M. KAPLAN, NEW YORK



JERSEY BULL, RALEIGH'S FARMER'S JOY, OWNED BY ELM HILL FARM, MASSACHUSETTS



HOLSTEIN BULL, WHITEHURST COLANTHA ARTIS LAD, OWNED BY A. F. RANDOLPH, ILLINOIS



GUERNSEY BULL, CORIUM PRINCESS CARRIE'S CHAMPION, OWNED BY F. J. RUEPING, WISCONSIN

Learning To Be Useful Men And Women



THE WARM LUNCH IN SCHOOL MEANS MUCH TO THE GROWING BOY AND GIRL. WE HAVE PASSED THE TIME WHEN WE THINK COLD LUNCHES JUST AS GOOD



A HIGH SCHOOL SEWING CLASS. TRAINING OF THIS KIND RECEIVED IN SCHOOL TEACHES THE GIRL THE BEST WAY TO SEW AND TO SAVE TIME



BUSSES TAKE THE CHILDREN TO SCHOOL IN WAUSAUKEE, WIS.



BOYS' AND GIRLS' CALF CLUB, PESHTIGO, WIS.



A COUNTRY SCHOOL IN MARINETTE COUNTY, WISCONSIN



TESTING MILK IN CLASSROOM. THIS IS GIVING THE BOYS AND GIRLS OF THE FARM USEFUL INFORMATION WHICH WILL ALWAYS BE OF VALUE TO THEM



A MILK TESTING CLASS WORKING ON A FARM



STOCK JUDGING CLASS VISITS FARM TO PRACTICE WHAT HAS BEEN TAUGHT IN CLASSROOM



TEACHING HOW TO TEST SEED CORN. THIS IS A SIMPLE THING TO DO, BUT MANY FARMERS DO NOT TEST THEIR CORN BECAUSE THEY DO NOT KNOW HOW

Dairy-men are Business-men

HOARD'S DAIRYMAN has a circulation of over 100,000 distributed among the several states of the Union, and it is devoted almost exclusively to the Dairy interest. A survey of its subscribers made some time ago, showed that 96.56 per cent carried bank accounts; that 92.13 per cent paid their bills by checks; that over 33 per cent owned typewriting machines; that 88.2 per cent owned automobiles and that of those who owned autos 87.27 per cent paid cash for them.

Furthermore, the survey showed that the average acreage of their farms was 164.95 acres, of which 129.61 acres were improved; that the average value was $162.28 per acre, exclusive of buildings; that the average investment in farm buildings was $8,671.56; in farm machinery, not including tractors, trucks or automobiles, $1,670.13; in dairy herds, $3,362.58; in all stock, $4,663.48, and that the average total investment per farm was $26,769.81!

The average gross yearly income was $6,346.23 whereas the average yearly expenditures were found to be $4,268.69, leaving $2,077.54 as the average net income.

Equally as interesting but perhaps more significant was the fact that 67 per cent of them carried some form of life insurance and that of those insured, 64.26 per cent *carried old line life insurance!*

The foregoing shows that the dairyman of today is not only a business man but a thinking man. He realizes that the future of most American families is in the productive hands and brains of the head of the family, and particularly the dairyman's family He feels that there is something more than an obligation on his part as a husband and father He has attained to the dignity and worth of a merchant or a manufacturer and he has an economic responsibility which he ought to heed He has no more right as a citizen to leave his producing business to an uncertain future than he has to leave his family in poverty.

When the head of a dairy farm dies, the breath of the business stops. Both his family and the farm need funds to tide them over until new hands, new brains, new plans and new energy can help them, and the only definite and absolutely sure medium by which this can be accomplished is *Life Insurance.*

As a dairyman, as a business man, as a citizen and as a husband, he must carry Life Insurance to protect him in all of his obligations and duties.

The Northwestern Mutual Life Insurance Company of Milwaukee, Wisconsin, long and familiarly known as the "Farmers' Friend" because of its business policy of loaning funds to farmers, — for more than 66 years has devoted its best thought and energy to the perfection of life insurance contracts which exactly meet the requirements of the farmer in his desire to protect himself, his business and his family. These contracts are perfected to the minute and should be examined into by every Dairyman in the United States. The Northwestern maintains agencies in every community in the healthful parts of this country and its representatives will be glad at any time to explain these modern, protective policies to all who inquire about them. The agents of the company are trained for Service and they are pleased to render it.

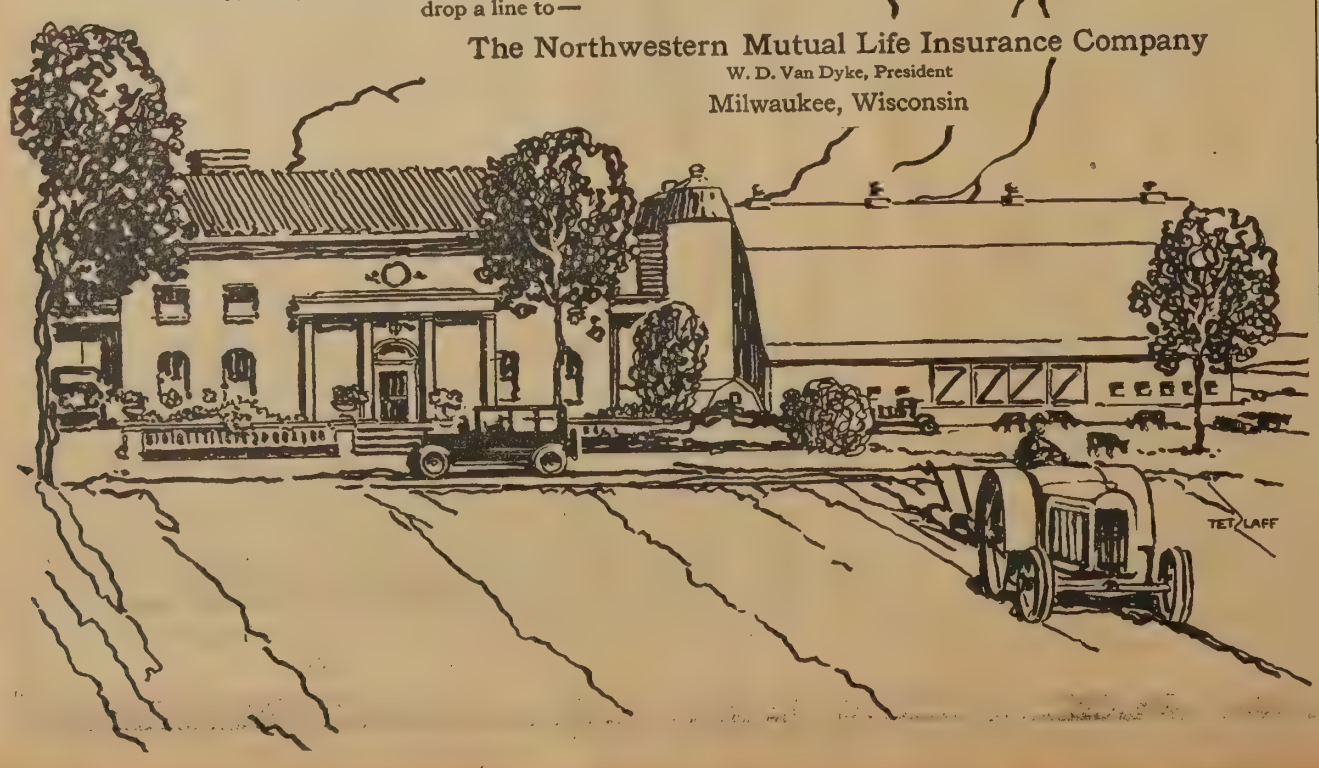
If you find there is no representative of the company in your immediate vicinity, and you are interested,

drop a line to—

The Northwestern Mutual Life Insurance Company

W. D. Van Dyke, President

Milwaukee, Wisconsin



Consumption of Dairy Products

The increasing importance of dairying in the United States as a source of the Nation's food supply is strikingly brought out in a study just completed by T. R. Pirtle of the United States Department of Agriculture. The per capita consumption of milk and cream has increased about 12 per cent during the past ten years, and per capita consumption of butter has increased more than 6 per cent.

Special efforts have been made by the department during the past two years to obtain data on the consumption of dairy and poultry products on farms. Based upon reports from 30,000 township crop reporters in all parts of the country it is shown that the per capita consumption of milk and cream on farms is much larger than in cities. The average per capita consumption on farms with cows last year was approximately 81 gallons, whereas the average for the entire country was only 53 gallons. Average consumption of milk and cream on farms ten years ago was only 72 gallons.

Farm consumption of butter has also increased greatly, being now more than double the average for the United States. Per capita consumption of butter on farms last year is placed at 38 pounds as compared with an average of 17 pounds for the country as a whole. This farm consumption shows an increase of over two pounds per capita since 1913

The average person on farms also eats about one case of eggs a year, and about one fowl per month, Mr. Pirtle says.

Holsteins in Advanced Registry

A total of 20,030 pure-bred Holstein-Friesian cows now have completed yearly production records in the Advanced Registry of the Holstein-Friesian Association of America with an average of 15,603.2 lbs. milk and 528.49 lbs. butterfat, equivalent to 660.6 lbs. butter, according to the report of the superintendent of Advanced Registry for the last fiscal year recently closed.

The average yearly production for 7,109 full-age cows is 17,548.2 pounds milk and 742.9 pounds butter; for 1,445 senior four-year-olds, 16,540.7 pounds milk and 697.3 pounds butter; for 1,605 junior four-year-olds, 16,011 pounds milk and 678.4 pounds butter; for 1,773 senior three-year-olds, 15,444.3 pounds milk and 651.7 pounds butter; for 1,993 junior three-year-olds, 14,531 pounds milk and 614.5 pounds butter; for 2,312 senior two-year-olds, 13,971.7 pounds milk and 591.7 pounds butter; and for 3,793 junior two-year-olds, 13,060 pounds milk and 555 pounds butter.

Of these 20,030 cows 84 hold yearly records of over 1,000 pounds butterfat or 1,250 pounds butter, and 56 have in 365 consecutive days produced over 30,000 pounds milk.

The seventh enlarged edition of Decker's book, "Cheesemaking" has been revised by Prof. J. L. Sammis of the Wisconsin Dairy School. This new edition is largely rewritten and contains much new material relating to the cheese factory management, cheesemaking cost, cheese yield, and modern methods of making all kinds of cheese. It is for sale at this office for the sum of $2.25.

Liza—Dat certainly is a beautiful engagement ring. What size is dat diamon'?

Rastus—Dat is de 20-year instalment size!

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

A Cuban on the T. B. Test

HOARD'S DAIRYMAN:—It used to be the common saying (and is yet for all I know) that there were two subjects that could not be discussed fully and freely without starting a fight, to wit: politics and religion. In these hectic days, I am of the opinion that there are two more, T. B. testing and the pool. The latter is a sectional affair, so we'll dismiss it at the start, but I'll chance the former, as it vitally affects all dairymen today.

In your recent issue of the eighth, "Dozen Reasons Against T. B. Testing by Illinois Dairyman", I am inclined to think there is a lot of truth in what he says. Have been a reader of your paper for a matter of four years, so considering that this is a dog-goned short time to even figure on qualifying as a debater, shan't contradict a thing in no way whatsoever, but will base all suppositions on what I have observed in New York (southern section).

Have been given to understand that some bovines are so far gone with the disease that they fail to react to any of the three tests and "Illinois Dairyman" has evidently borne out that statement with reference to the animal that was shipped to the Yards at Chicago for beef purposes.

Possibly the T. B. test is O. K. but what riles me is, why under the canopy of heaven, isn't full publicity given so that the prospective applicant will get a fair idea of what he will eventually run up against? When a fellow signs an ordinary contract, if he's wise, he reads it over carefully; that is we suppose he does, if he's going to protect his bank account from any great raid thereon and he knows that it will probably be a gamble as the other fellow or party of the first part is probably out for blood or all that there is in it. But, when the victim reads over the proposed agreement for T. B. testing he could read it from now until "the sands in the desert grow cold" and I seriously doubt if the keenest minded man in the game today would have even a faint idea of what he is up against.

Dairying, as I view it, is too chuck full of present problems and possibilities for the average man to see or attempt to look into the future. The man who is well fixed with this world's goods can afford to stock a farm with high priced animals, either grades or pure-breds, and can sign up for the test and take the consequences without batting an eye, but how about the fellow of limited means whose very existence depends on what he can get from his cows twice every twenty-four hours in order to hold body and soul intact? That, gentlemen, is something else again!

In some sections of Southern New York, the dealers in cows are very much against the test and should a fellow sign up, he's taking an awful chance if he buys any stuff from them doing so deliberately, knowing that possibly they have come from another section where testing simply isn't done. And thereby hangs a tale.

Wisconsin, as every dairyman knows, (if you can make him admit it) is the cleanest state in the union today, but it seems to me that those who have retired from the game in your state are selling off their animals on that reputation and them to be trying to gouge as deep as they can for that reason. I've seen ordinary black and whites from your state shipped in and sold for (or rather the price demanded and got) $175 to $200 and this, mind you, in the trying days of '21 just after the big crash! Simply because they were tested stuff. If that isn't hogging it all around, then please tell me, what is it?

Is the "prospect" ever told that the present appropriation is exhausted and that there will be nothing doing until a new one is made? Not by a darn sight! Even the famous old Latin phrase of *"Caveat Emptor"* seems to be used to good effect by our paternal governments (federal and state). All right, let's proceed: A part of the dairy is condemned as being reactors and are shipped off to market and papers are signed and sent off to the Department and in the meantime we will suppose that the victim is looking around for tested stuff to replace what has been lost and possibly in a week's time comes word from the Department that the present appropriation is exhausted and it will be necessary to wait until a new one is made. Bam! and the game is on! That is what I feel safe in stating is plain h—l and repeat! And that is one reason in my mind why so many honest to God farmers are forced to the wall. All of which would probably not have happened had full publicity been given in the first place. It's all very well to tell what advantages will accrue from the testing and where it will eventually land a fellow, if he can weather the gale (but that part is never mentioned), but why in thunder aren't the appropriations made sufficient to cover all indemnities, or limit the work to compare with the appropriation in force?

For those delivering to a fluid market, if the pasteurization does away with all chances of the germ living (and I'm including the T. B. germ, also) then why should the fluid man fall for this and if pasteurization fails to eliminate this germ, then why pasteurize unless there are other pathogenic germs of equal danger?

Now, gentlemen, your paper appeals to me as one that is about the best informed one in circulation today and read by the better class of dairymen, so it puts you strictly on the fence if you will open your columns to both sides of the question for a full, free, and frank discussion of the whole business. Line up eminent authority, pro and con, and let's have it out and see what your readers have to say.

Cuba. K. D. WASHBURN.

Single Tax

HOARD'S DAIRYMAN:—Why single tax? Single tax is contrary to our fundamental laws unless the strangle holt of unjust assessments on the home owner be considered so. It is that which takes the very foundation from the home on the material side taxing homes in effect and nothing else, they being the only thing that cannot and will not escape it. Great wealth does not bear its equal share of taxes now. Under single tax wealth would not pay one-tenth the tax it does now. The rest would be laid on the laborers' and farmers' homes. The poor hovel would pay the same tax as the mansion next door, even though the latter's income was a million dollars to the farmers' one.

Michigan. R. W. STEED.



Geo. W. Cook Farm, Dover, Kansas

Painted White

Barn, house and everything on the Geo. W. Cook farm at Dover, Kansas, are painted a glistening white with Eagle White Lead in Oil. The Cheuvront Lumber Company of Dover, furnished the lead and report that all concerned are better satisfied than with any other white lead that they have ever used.

The long continued whiteness and long life of buildings painted with EAGLE White Lead are due to the Old Dutch Process of manufacture. They are developed by the slow, sure process of corrosion, during the 90 days that Eagle White Lead is forming in the corroding pots in the tan bark beds.

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A Ready Market *for* Dairy Products

There is a strong demand for dairy products in the South. There are fewer cows per capita in the South than in the North and East, and the milk, butter, cheese, etc., demand in the South is far greater than the supply.

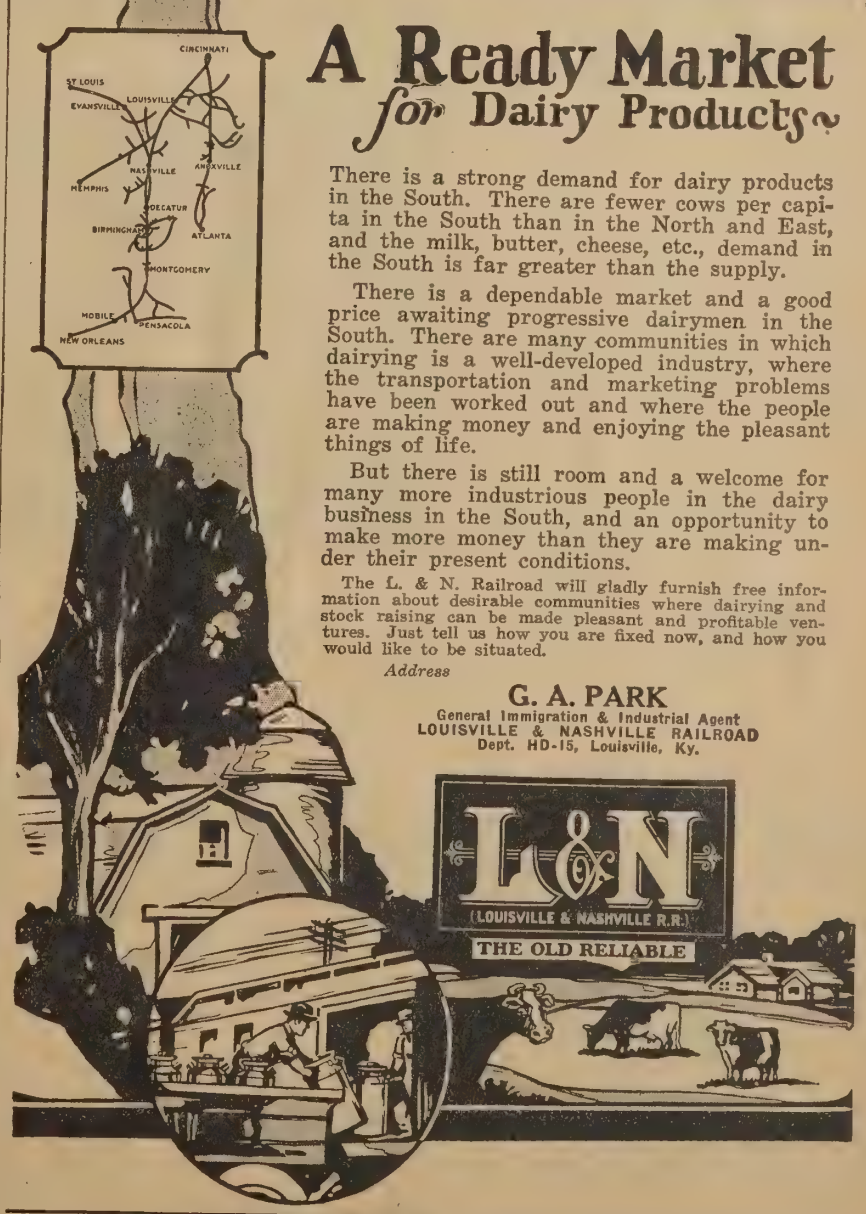
There is a dependable market and a good price awaiting progressive dairymen in the South. There are many communities in which dairying is a well-developed industry, where the transportation and marketing problems have been worked out and where the people are making money and enjoying the pleasant things of life.

But there is still room and a welcome for many more industrious people in the dairy business in the South, and an opportunity to make more money than they are making under their present conditions.

The L. & N. Railroad will gladly furnish free information about desirable communities where dairying and stock raising can be made pleasant and profitable ventures. Just tell us how you are fixed now, and how you would like to be situated.

Address

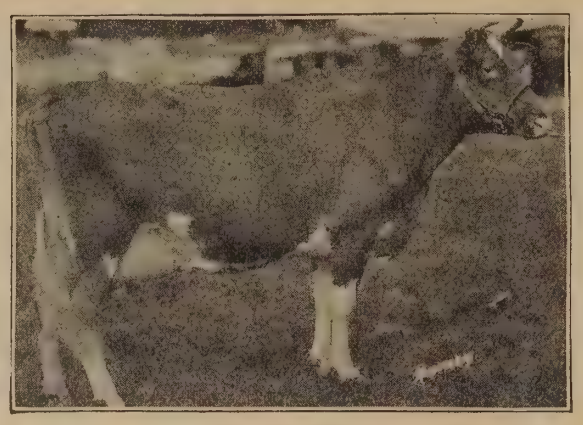
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THE MARYLAND STATE FAIR



HELEN OF SEIBERLING FARM, JUNIOR CHAMPION GUERNSEY COW
OWED BY GERAR FARM, MARYLAND



SECRET OF CRANE FARM, SENIOR AND GRAND CHAMPION GUERNSEY COW
OWNED BY GERAR FARM, MARYLAND



BUNTONHILL MABEL CHANCE, SENIOR AND GRAND CHAMPION AYRSHIRE COW AT THE MARYLAND AND NEW YORK STATE FAIRS
OWNED BY ALTA CREST FARM, MASSACHUSETTS

MARYLAND farmers are beginning to realize that the annual fair at Timonium is well worth their patronage. Being situated right in a horse loving country, a majority of the people that passed through the gates during the first five days of September spent most of their time in the vicinity of the race track. However, the interest in the judging of the four dairy cattle breeds was very intense and lasted from early morning until each day's work was finished. Many of the exhibitors were from distant states and the attention shown in their cattle by both the spectators and the management was very pleasing.

Nearly five hundred head participated in the open classes and the animals of the boys' and girls' calf clubs brought this figure up to nearly six hundred. Well fitted cattle were by far in the majority. The cattle that were brought to the grounds direct from their homes in many cases indicated that they were in their "working clothes" but the good judges had little difficulty in comparing their type with the highly fitted animals.

The dairy cattle exhibit at Timonium is improving, and the attention given the fair every year by real farmers and breeders bids fair for a show that will demand still greater appreciation in the future.



THE WINNING BOYS' AND GIRLS' JUDGING TEAM, KENT COUNTY, MARYLAND
Left to right: H. B. Derrick, Co. Agt., M. L. Sutton, W. Morris, S. Sutton.

The first prize winners of all the breeds are as follows:

Jerseys

Judge: John C. McNutt, New Hampshire.

Bull 3 years old or over—Twin Oaks Farm, New Jersey, on Fern's Wexford Noble. Bull 2 years and under 3—Twin Oaks Farm on East Lynne Prince. Bull 1 year and under 2—Twin Oaks Farm on Counterstroke. Senior bull calf—Twin Oaks Farm on Oxford Wexford Noble. Junior bull calf—Holly Beach Farm, Maryland on Mistletoe's Hermit.

Cow 4 years old or over—Twin Oaks Farm on Fern's Oxford Diana. Cow 3 years and under 4—Twin Oaks Farm on Volunteer's Merry Magpie. Cow 2 years and under 3—Twin Oaks Farm on Volunteer's White Sox. Senior yearling heifer—Twin Oaks Farm on Fern's Oxford Columbia. Junior yearling heifer—Twin Oaks Farm on Fern's Oxford Silver Thread. Senior heifer calf—Twin Oaks Farm on Fern's Oxford Melodant. Junior heifer calf—Reynolds Inc., North Carolina, on No. 124.

Senior and grand champion male—Fern's Wexford Noble. Junior champion male—Oxford Wexford Noble.

Senior and grand champion female—Fern's Oxford Diana. Junior champion female—Fern's Oxford Silver Thread.

Ayrshires

Judge: John Cochran, Pennsylvania.

Bull 3 years old or over—Alta Crest Farm, Massachusetts, on Bargenoch Masterstroke, Imp. Bull 1 year and under 2—Alta Crest Farm on Alta Crest's Happy Go Lucky. Senior Bull Calf—Alta Crest Farm on Alta Crest Weather Vane. Junior bull calf—Alta Crest Farm on Alta Crest Diploma.

Cow 4 years old or over—Alta Crest Farm on Buntonhill Mabel Chance, Imp. Cow 3 years and under 4—Alta Crest Farm on Alta Crest Spicy Queen. Cow 2 years and under 3—Alta Crest Farm on Alta Crest Powder Puff. Senior yearling heifer—Alta Crest Farm on Alta Crest Bright Lass. Junior yearling heifer—Alta Crest Farm on Alta Crest Sauce 2nd. Senior heifer calf—Alta Crest Farm on Alta Crest Hill Brow. Junior heifer calf—Alta Crest Farm on Alta Crest Sweet Marie.

Senior champion male—Bargenoch Masterstroke, Imp. Junior and grand champion male—Alta Crest's Happy Go Lucky.

Senior and grand champion female—Buntonhill Mabel Chance, Imp. Junior champion female—Alta Crest Bright Lass.

Get of sire—Alta Crest Farm on get of Morton Main's Lord Barry-Lyndon. Produce of dam—Alta Crest Farm on produce of Allancroft Mildred. Breeder's calf herd, breeder's young herd, exhibitor's herd, 4 cows in milk, junior A. R. cow, senior A. R. cow—Alta Crest Farm.

Holstein-Friesians

Judge: R. E. Haeger, Illinois.

Bull 3 years old or over—Pinery Farms, Ohio, on King Pietertje Jewel Korndyke. Bull 2 years and under 3—H. E. Robertson, Pennsylvania, on King Piebe of York 13th. Bull 1 year and under 2—Mountain View Farm, Maryland, on Trembal King Colantha Calan. Senior bull calf—Mountain View Farm on 221 A. Junior bull calf—Karl H. Nim's, Ohio, on King One Aaggie Ormsby.

Cow 4 years old or over—Pinery Farms on Kismet Fayne of Valley View. Cow 3 years and under 4—Springfield State Hospital, Maryland, on Eli Oak Prilley. Cow 2 years and under 3—Mountain View Farm on Dutchman's Konigen Ragapple. Senior yearling heifer—Pinery Farms on Model Cornucopia Ona. Junior yearling heifer—Pinery Farms on Ona Gabriel Walker. Senior heifer calf—Springfield State Hospital on Spring Syke Juliana. Junior heifer calf—Karl S. Nims on Aaggie Ona Button Concordia.

Senior and grand champion male—King Pietertje Jewel Korndyke. Junior champion male—Trembal King Colantha Calan.

Senior and grand champion female—Kismet Fayne of Valley View. Junior champion female—Spring Syke Juliana.

Get of sire—Pinery Farms on get of King Ona. Produce of dam—H. E. Robertson on produce of Pearl Pietertje Burke Pontiac. Breeder's calf herd, breeder's young herd—H. E. Robertson. Exhibitor's herd, junior A. R. cow, senior A. R. cow—Pinery Farms; 4 cows in milk—Springfield State Hospital.

Guernseys

Judge: Gordon Hall, New Jersey.

Bull 3 years old or over—Brooklandwood Farm, Maryland, on Brooklandwood Reckless. Bull 2 years and under 3—Circle W. Farm, Ohio, on Flashlight of Cedar Hill. Bull 1 year and under 2—Breidablik Farm, Delaware, on Cherub's Nonpariel of the Prairie. Senior bull calf—L. C. Scarborough, Maryland, on Mary's Patient King. Junior bull calf—A. Stanley Zell, Maryland, on Thornton's Sheik.

Cow 4 years old or over—Gerar Farm, Maryland, on Imported Secret of Crane Farm. Cow 3 years and under 4—Bloomfield Farm, Maryland, on Fisherman's Flora of Mt. Ararat. Cow 2 years and under 3—Breidablik Farm on Mogna of Breidablik. Senior yearling heifer—Gerar Farm on Helen of Seiberling Farm. Junior yearling heifer—Circle W. Farm on Lulu White. Senior heifer calf—



FIRST PRIZE AYRSHIRE GET OF SIRE



TREMBAL KING COLANTHA CALAN, JUNIOR CHAMPION HOLSTEIN BULL
OWNED BY MOUNTAIN VIEW FARM, MARYLAND



ELI OAK PRILLEY, FIRST PRIZE 3-YEAR-OLD HOLSTEIN COW
OWNED BY SPRINGFIELD STATE HOSPITAL, MARYLAND

Breidablik Farm on Forget-me-not of Breidablik. Junior heifer calf—R. H. L. Chichester, Virginia, on Glencairne Venus.

Junior and grand champion male—Cherub's Nonpariel of the Prairie. Senior champion male—Brooklandwood Reckless.

Senior and grand champion female—Imported Secret of Crane Farm. Junior champion female—Helen of Seiberling Farm.

Get of sire—Breidablik Farm on get of Brookmead's Laurus of Breidablik. Produce of dam—Breidablik Farm on produce of Glen Gable Guest. Breeder's calf herd, breeder's young herd, junior A. R. cow—Breidablik Farm. Exhibitor's herd, 4 cows in milk, senior A. R. cow—Gerar Farm.

Dairy Records Cabinet

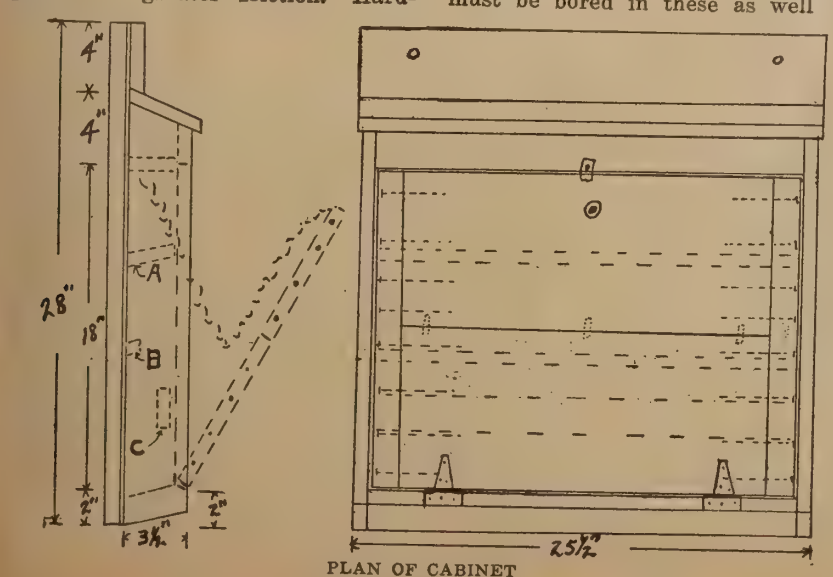
HOARD'S DAIRYMAN:—When I commenced to use the large monthly milk sheets, I found that a suitable place was lacking. To tack it upon the wall wasn't satisfactory; a permanent shelf was in the way as well as lacking protection for sheet. A hinged shelf was an improvement, but still it had its drawbacks. Therefore, I devised the cabinet as illustrated. This meets the requirements ideally. It is small, portable, occupies little space when folded up, and gives absolute protection for record sheets. It also provides a place for other records such as breeding dates, feed records, etc.

I made the cabinet according to lumber available and size of milk sheet. The important thing is to have a door large enough to take the sheet without folding, hence a door 18x24 inches was necessary for my cabinet. The material is ¾" dressed soft pine. Since I had no D. & M. lumber for back I put heavy roofing felt next to cabinet before I nailed the boards on the back. This was to make cabinet moisture proof. Boards on back are nailed up and down. The bottom cross-piece is 1½" material. This is necessary, since the door hinges on this piece. Since this piece slopes inward, I planed down the edge where door meets it so that just under door the slope is outward. This will drain off any moisture that may run down outside of door. The bottom of door is beveled off too, to correspond with cut in plate underneath. The top is made to drain off any water that may fall upon it. The cabinet is constructed to give moisture proof protection to the contents within.

The shelf "A" is just an after thought added to cabinet. I wanted to use the space on back for something, so I put a small shelf there. It comes in handy for small things that find their way into a dairy barn. Ledge "B" is intended primarily for pencils. It should slope up on outer edge so that pencils will stay when put there. Board "C" makes a rack for holding records or memoranda books. In order to give front of cabinet a flush appearance when door is closed, I put cleats on door on sides, using 16 pwt nails that I rosined to give them greater friction. Hardwood cleats were used. Small holes must be bored in these as well as part way in boards. Door folds down and is supported with a chain to make it stand out at right angles when using. Chain folds up inside of cabinet when door closes. Small thumb tacks are used to fasten sheet to door.

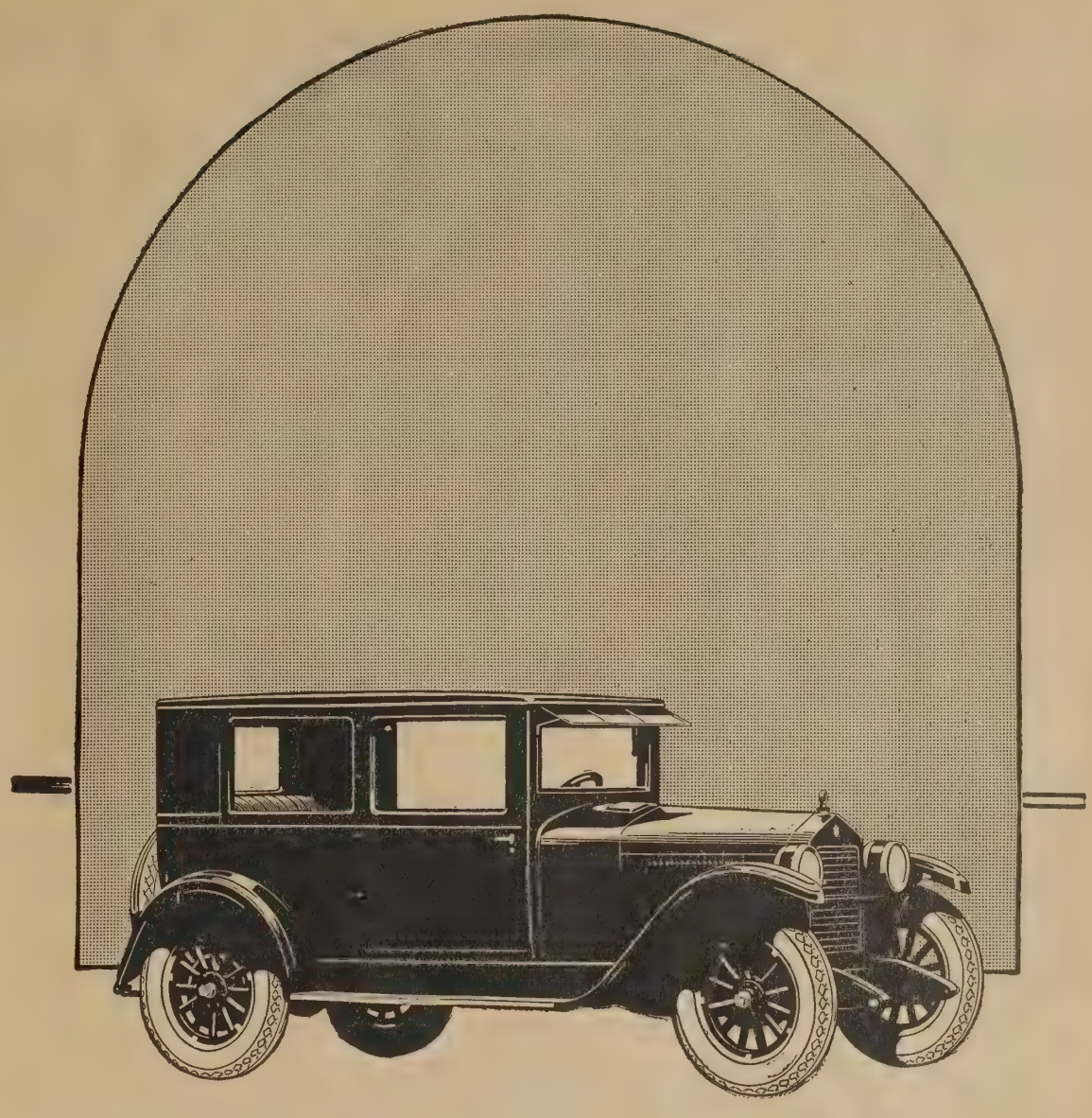
Though small, this cabinet serves very well for a barn desk. You can keep lots of useful material in it and save you many a trip to the house. I have found it a long wished for article and adds to the efficiency of record keeping on the farm.

Minnesota. F. E. KNOCK.



PLAN OF CABINET

Amy Rag Apple Pontiac is now Rhode Island's leading cow of the breed for production in ten months as a junior four-year-old. Her record is 21,407.2 pounds milk, 702.28 pounds butterfat, equivalent to 877.8 pounds butter.—Extension Service Holstein-Friesian Ass'n. of America.



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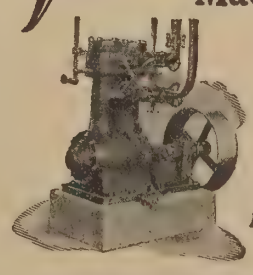
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EDITORIAL COMMENT



WHAT makes a thorough farmer? How shall we know him? Suppose we measure him by the following standard: The highest degree of skill and intelligence; the most careful preservation of fertility; and the best and thorough methods for carrying on the farm. One thing we note almost always when we strike a thorough farmer and that is he is almost always on a moderate sized farm. He seems to be more concerned about getting large returns from a few acres than a moderate return from many acres.

THE Co-operative Pure Milk Association, Cincinnati, is organizing a cow testing association. This co-operative association is the first to retail milk in a large city and those in charge of it have been led to see by practical experience that the unprofitable cow is a drag upon the success of their enterprise. The cow testing association will find the unprofitable cows, the ones that produce surplus milk and decrease the prices of dairy products. There is nothing like contact with actual business affairs to teach the dairy farmer or his representatives sound business practices.

A SUBSCRIBER writes: "I am milking cows strictly for the profit in the business and do not care a rap what color they are, how they are marked, or how they are shaped. 'What will they do over the scale and Babcock tester for eight months?' is the only question I ask." It must be admitted that color, markings, or beauty of form have little or nothing to do with profit at pail. Nevertheless most dairy farmers desire to see in their barns well marked and well shaped cows. There is more satisfaction in owning a good looking herd of cows than one that is illy marked, colored, and shaped. This man who says he does not care a rap for color, markings, or shape is keeping cows simply for milk production and from his standpoint the cow that gives the most milk is the one which he prefers. We would consider it a serious mistake, however, if all men took the same view of their herds.

MYSTERIES OF SKIMMILK

Few farmers fully appreciate the feeding value of skimmilk. Experiments have been made to determine the feeding value of skimmilk for all kinds of live stock, but one of the most striking results which have ever come to our notice was obtained at the Michigan Experiment Station. Professors Reed and Huffman planned an experiment for the purpose of demonstrating the value of skimmilk in supplementing corn for rearing swine. The details of this experiment are reported on page 270 of this issue, but one pig in particular made such phenomenal gains on skimmilk after being fed a starvation ration for a year, that we feel we must call particular attention to it. Further, this experiment so emphasizes the value of skimmilk for supplementing corn for raising and fattening swine that it needs to be emphasized.

One pig in the experiment received corn and water for one year and weighed at the end of that time only 76 lbs. Then skimmilk was added to the corn and in five months' time the pig gained 274 lbs.; or, in other words, weighed, at the age of 17 months, 350 lbs. There are those, when calculating the cost of producing 100 lbs. of pork, who estimate it requires 11 to 12 bushels of corn. This is a misleading calculation, for pigs on corn alone, no matter what its price may be, will not make profitable gains. Adding a little skimmilk to the corn makes it very nearly a perfect ration.

Experiments carried on at the Michigan Experiment Station show the folly of attempting to raise hogs on corn and water. Skimmilk is quite as essential for raising profitable pigs as corn and when a little is fed to the hog in connection with corn, he will make tremendous gains. If all farmers fully appreciated the feeding value of skimmilk the problem of co-operative marketing of milk would be much simpler. Skimmilk at the present prices of pork and corn is worth 55 to 60 cents a hundred. Pork raising becomes a profitable industry when a little skimmilk is fed with corn. It is a miserable failure when only corn and water are fed.

NATIONAL DAIRY EXPOSITION

As we view the proposed exhibits for this year's National Dairy Exposition, we consider them the best and most educational that have ever been planned in the history of this institution. It seems to us this year's display of dairy cattle, machinery, products, demonstrations, educational exhibits, etc., come nearer to meeting the ideal and measuring up to the opportunity of a great national dairy exposition than has ever been previously planned and presented. We do not know as the exhibits of pure-bred dairy cattle will be any better or that the machinery exhibit will be larger or finer, but we are sure the educational exhibit will be better and the grade cow, coming in the force that she is, will make the 1924 Dairy Show stand out in history.

The grade cow has been neglected. She is the one that has the largest following; she produces the larger part of the dairy products of this country. It has taken a long time to get a sufficient number of cow testing associations established and a sufficient number of grade dairy cows tested to warrant an attempt to make an exhibit of these cows and to show just what they are capable of doing. The cow testing association, of course, reaches all classes including the grade, the pure-bred, and the scrub. There will be on exhibition a herd of pure-bred cattle with cow testing association records. The knowledge, the understanding, the inspiration which cow testing associations give to those who belong to them is immeasurable. The Dairy Show at its best can only give an inkling of their meaning to the advancement of the dairy industry.

It is with keenest satisfaction that we note that this year's Dairy Show is devoting so much of its space and energy to things which we consider fundamental to the welfare of the people of the nation, to the financial success of the dairy farmer, and to placing the dairy industry before the people of this country in its proper light.

IN LOVE WITH HIS JOB

The man who is not in love with his job is one of the most unfortunate persons in the world. No sum of money, no power or distinction, can bring the genuine satisfaction and contentment that a person receives when he likes the work which he has to do.

We recently met a man thoroughly in love with his job. He is a herdsman and in charge of making semi-official records with Holstein cows. He milks several of them four times a day, which makes his hours long and does not permit him to be in bed as many as six hours in succession. He is required to work 365 days of the year; still he loves his job. Two or three years ago he married and the owner of this herd, as a wedding gift, paid his way to the Dairy Show which was held in St. Paul. He stayed but a few days and when asked why he returned so soon, he said that he could not with any comfort remain away from his cows any longer. We heard the owner offer him an opportunity to attend the National Dairy Show this year which will be held in Milwaukee September 27th to October 4th. He said that he didn't think he cared to go and would not, unless the owner insisted.

It is perhaps unfortunate to be so much interested in your work that you cannot enjoy other things and take time for recreation and to visit fairs, attend meetings or entertainments. It is far better, however, so far as happiness is concerned, that a person overdoes liking his job, rather than to dislike it so much that he desires to spend all his time seeking happiness, taking recreation, and attending entertainments. Such people are seldom happy and when a person is not happy in his work there is very little happiness in this world for him. It is important for young men in determining what they are good for that they find some kind of work they not only can do well but that they will like.

Being in love with your job is the greatest asset, outside of health, that a human being can possess. Too few appreciate this.

GOOD BREEDERS

One of the great virile forces in the advancement of agriculture is the 4-H club movement, with an army of nearly a half million boys and girls doing supervised agricultural project work throughout the United States. Live stock and grain breeders who have not caught the vision of what this movement means should get on the wagon and take a ride and see for themselves the value of this great movement.

A farmer who had three boys in club work recently told us of some of the difficulties which he and his boys encountered in purchasing live stock for club work. They were looking among the hog breeders in their territory—southern Wisconsin and northern Illinois—to purchase animals for club work which would make a creditable showing at fair time. The first breeder approached showed them a lot of about sixty or seventy pigs. This breeder was told that the animals were wanted for club work. The prices he quoted on these animals were considerably higher than the average. The farmer told us that not one of the pigs shown them would make a creditable showing in a show ring.

When asked where he kept his good pigs, the breeder said they were over in another lot but were not for sale because he intended to show them himself. Naturally the man and his sons did not purchase any animals from this farm. Later they visited a hog breeder who was not planning to show his pigs. An inquiry for club pigs brought good results for the farmer and his boys. This breeder showed them some of his typiest pigs and quoted them at a reasonable figure slightly above market price. This man realized the importance of club work. He realized that the farm industry of the future depends upon the farm boys and girls of today. Good breeders should be willing to sacrifice a little today for the betterment of the industry tomorrow. It is not fair nor just, neither is it good business sense, to try to sell poor live stock at high prices to 4-H club members or to anyone else.

CREAM GRADING

The manufacture of butter is one of the most important industries of this country. Since the beginning of this industry, the buttermakers have been confronted with the problem of securing high quality milk and cream. No process of manufacture has been able to make a poor grade of raw material into a high quality of butter. For the past five years or more, there has been a growing sentiment in favor of cream grading and paying for cream according to quality. There is nothing more detrimental to the dairy industry than poor quality butter. It leads the consumer to stop using butter and to buy substitutes.

Cream grading is a paramount issue and will be given consideration at a conference to be held at the Milwaukee, Wis., Auditorium in connection with the National Dairy Show on September 30th. The principal speakers on this occasion will be Dr. C. W. Larson, Chief of the Bureau of Dairying, and Professor C. Mortensen of the Iowa College of Agriculture. Some national standard should be adopted for grading cream and then all creameries should follow the practice of purchasing cream according to this standard.

Sweet Clover Lives Two Years

How many years will sweet clover last for pasture? Won't it be necessary for it to go to seed in the fall so that it reseeds?

New Bloomfield, Pa. G. W. W.

Sweet clover seeded in the spring should give pasture in the fall of that year. It will also give pasture into the late summer of the second year. Following that, it will dry down and produce no further growth. The sweet clover is a biennial plant; that is, it produces a growth the second year and then dies. If there is considerable growth in the pasture that goes to seed the second year, it is possible that the pasture will reseed itself. It is doubtful, however, whether in most cases this will be satisfactory and it would be safer to disk the field thoroughly and reseed again.

Weight of Alfalfa Silage

How many tons of alfalfa would there be in a silo 30 ft. high and 20 ft. in diameter? We have the figures for corn and ordinary silage, but understand that the alfalfa being allowed to dry somewhat would occupy more space.

East Grand Forks, Minn. F. C. M.

There are no figures available concerning the weight of alfalfa silage. We have conducted considerable experimental work with alfalfa silage but did not determine the tonnage which would be contained in a silo. The most recent tables for estimating the weight of silage are based on settled silage. In 30 feet of settled silage in a silo 20 feet in diameter there would be about 185 tons of silage made of corn under typical conditions. From our experience with alfalfa silage, I would judge that you are correct in your opinion that it would be somewhat lighter than the corn silage, although not materially. I would estimate that 30 feet of alfalfa silage in a 20-foot silo would weigh approximately 160 tons. C. H. ECKLES.

Minnesota College of Agriculture.

Storing Green Alfalfa

Professor L. F. Graber, in describing the barn curing process followed by Mr. Math. Michels, stated that the alfalfa should be spread in layers 8 to 10 feet deep over the mow at a cutting. Please let me know how much time should elapse before another layer of alfalfa may be put in the mow.

Hammondsport, N. Y. J. A. R.

As a rule, I would judge it best to allow alfalfa hay that is put in the mow to a depth of about eight or ten feet to remain there for a period of three weeks before additional hay is added. I am referring now to hay that is put up while still in a semi-green condition. With this period, the heating process should, for the most part, have "spent itself".

In many sections there has been so much rainfall this season that the air is very humid, and care should be used to refrain from storing alfalfa hay that is damp with dew or rain, or that is too green. Where this is done, the heating may occur to such an extent as to blacken the hay and spontaneous combustion might occur. It is also important that the hay be spread evenly and uniformly in the mow. L. F. GRABER.

Wisconsin College of Agriculture.

Fall Seeding Sweet Clover

Can we sow sweet clover in the fall on a piece of clover hay land?

Monticello, Wis. F. D. T.

We do not advise the fall seeding of sweet clover and it is doubtful whether general success will follow this practice if sweet clover is seeded after August 1st. Some farmers have followed the practice of seeding in the last cultivation of corn and report good success with this. It is also possible that in favorable years the sweet clover could be seeded on grain stubble after harvest, merely by disking the field.

As a general rule, most men follow the practice of seeding sweet clover with grain in the spring, sowing from 8 to 12 lbs. of seed per acre. It may also be seeded in the spring on fall seeding of rye or wheat. This combined seeding may be pastured when the grain, say, is 6 inches high. If the grain is left to mature, the sweet clover will furnish good pasture the fall after cutting the grain, as also early in the spring and during the summer of the succeeding year.

With spring seeding, we recommend the use of scarified biennial white sweet clover. If you desire to try seeding in the fall or on land already in pasture, it might be preferable to use the unscarified seed, putting on about double the quantity. When the seed is not scarified, the tough outer coat keeps it from germinating readily, which will hold over a certain percentage of the seed from germinating until the next year. This helps to insure a crop where the late fall seeding kills out due to the winter weather and the small growth it made before freezing.

What has been the experience of our readers with seeding sweet clover in the fall or late summer?

Sunflower Silage

Would you kindly advise me when to cut sunflowers for silage? I have sunflowers and corn mixed about half and half. Corn now just starting ears and sunflowers just starting to blossom. Kindly let me know what you think of this silage for dairy feed.

Viroqua, Wis. A. L. E.

There is a considerable difference of opinion as to when sunflowers should be cut in order to produce the best quality of silage. We are inclined to the opinion that under most conditions it is better to wait until one-half to three-fourths of the sunflowers in blossom show the seed to be in the late milk or early dough stage. According to such information as we have been able to gather, the sunflowers will then still be well filled with moisture and the probabilities are that it will ordinarily make the best grade of silage.

As with any new crop, there is a great difference of opinion as to the value of sunflowers for silage. Some men have tried it and are disgusted with it, while others are just as enthusiastic in saying that it is equal to or superior to corn silage. Our own judgment is that where corn does not make a good crop, owing to a short growing season, probably sunflowers when properly ensiled will produce silage nearly, if not quite, equal to corn silage. Where corn will grow well and come to a fair maturity for silage it is our belief that it is the best crop to grow for silage. Feeding trials generally indicate that sunflower silage is somewhat less palatable and not quite as valuable ton for ton as is corn silage. The great value of sunflowers is for use in those sections where corn does not make a good crop.

When to Seed Sweet Clover

Have been reading so much lately about sweet clover pasture that I am really getting interested in it too, but have never heard anything about sowing time. Can it be sowed and pastured in the same season? Does it need a nurse crop? Would it be time in fall to sow and pasture next year? Does it need limed ground like alfalfa?

Brooklyn, Wis. H. B.

Sweet clover starts slowly and it is not often that conditions are favorable enough to get a stand by seeding in August. Some plants may make a start but will usually not be large enough to live over winter in this latitude. It is much better to sow sweet clover in the spring in small grain. Where wanted for pasture the same spring as sown it can be either sown alone or with oats.

Since sweet clover starts slowly it is not as well adapted to pasturing the first spring, and two months' pasture season is lost over seeding in the spring the year before in small grain. It must not be turned onto until the plants are at least six or eight inches high, which usually means two months after seeding. If the seed is sown the middle of April it will be the middle of June before it should be pastured.

I would sow ten pounds of scarified biennial white sweet clover seed per acre. It is absolutely essential that the soil be limed if acid, and inoculated if not already so.

Ill. College of Agriculture. W. J. FRASER.

Seeding Sweet Clover on Sod

HOARD'S DAIRYMAN:—From my observation and study it is not wise to sow a nurse crop with sweet clover when putting it into an old blue grass pasture. Under these conditions the sweet clover has enough to contend with in fighting the blue grass without having a nurse crop to contend with in addition. Of course, if many weeds were coming up it might be better to sow a nurse crop to fight these, but this is not usually the case in old blue grass pastures according to my observation.

From what I can learn it is almost useless to sow sweet clover seed on blue grass pasture unless the blue grass is pretty well cut up with a disk or some other tool, so that the seed can actually be worked into the soil. I have known it to be sown many times on top of blue grass in February and have heard of many people getting considerable sweet clover in that way. But I have never yet seen enough sweet clover gotten in this manner to pay for a quarter of the seed. This is, of course, not saying it will not pay in some cases. As I mentioned in one of the articles, where the blue grass is allowed to grow up rather high in the fall and is making a tough sod, it is almost impossible to get sweet clover into the ground, even with a disk.

If scarified seed is used in an old blue grass pasture, and it all grows the first year, there would be no sweet clover pasture the second fall or the third spring. To get continuous sweet clover in blue grass, one must reseed each spring for two years or else use unscarified seed.

Ill. College of Agriculture W. J. FRASER.

Silage With and Without Ears

What is the comparative feeding value of corn silage made of sweet corn and field corn?

What is the difference in feed value of silage made from corn where the ears are pulled off and heavily eared corn?

Norwalk, Calif. B. D. C.

There is very little difference in the composition of silage made from sweet corn and that made from field corn. The sweetness of sweet corn is due to its content of glucose, but as glucose and starch have about the same feeding value this does not affect the content of nutrients in the two plants. While for all practical purposes the feeding value of the silage would be the same, it is probable that the sweet corn silage would contain slightly more protein and be somewhat more palatable, but it would contain less carbohydrates.

Corn silage made from corn from which the ears have been removed at time of ensiling is about 75% as valuable, ton for ton, in feeding value as that which contains the ears. Not only is the resulting silage lower in feeding value per ton, but there would be a reduced tonnage per acre, amounting to approximately 60% of the weight it would have been if the ears had been left on. In other words, the weight of the green ears is about 40% of the total weight of the corn plant when ensiled.

This comparison is based upon corn from which the ears have been removed at the usual time of ensiling. In the growth of the corn plant, particularly during the latter stages, large portions of the nutrients are taken from the stalks and deposited in the kernels of corn. The comparison given above would not hold good for silage made from corn cut when it was in the roasting ear stage. The feeding value of such silage would more nearly equal the feeding value of silage made from the entire corn plant at the usual stage of maturity for ensiling.

Where corn is allowed to mature for grain and the corn stover is later ensiled, feeding experiments indicate that such silage is only 60% as valuable, ton for ton, as the silage made from the entire corn plant that is ensiled at the usual stage of maturity.

Many years ago, Professor Haecker, of the Minnesota Experiment Station, found that he could produce quite as much milk per acre from corn so closely drilled that it would not produce good ears as he could from corn more thinly planted and in which the ears were mature. A part of the explanation for this is that the nutrients instead of being deposited in the kernels on the ear were still in the stalk and leaves of the corn.

In order to equal the feeding value of corn silage made from the entire plant, silage made from corn with the ears removed will have to have put back practically the same amount of ground corn as was originally taken away. There may, however, be good reason for husking out some of the ears in order to have ear corn for feeding to stock other than the dairy cattle, such as to hogs, fattening animals, etc. As feed for dairy cows, there is no better place for the entire corn plant than the silo. It is a waste of labor and expense to husk out the grain and later grind it for the cows. Where one has a large acreage of corn, it might prove profitable, even on the dairy farm, to husk out a portion of the ears and either sell the ear corn or feed it to other live stock on the farm that cannot make good use of corn stover or of silage.

THE NEW YORK STATE FAIR



SENIOR AND GRAND CHAMPION JERSEY BULL,
FERN'S NOBLE WEXFORD SULTAN
OWNED BY S. M. KAPLAN, NEW YORK



SENIOR AND GRAND CHAMPION JERSEY COW,
QUEEN PLYMOUTH OF LEHIGH
OWNED BY ELM HILL FARM, MASSACHUSETTS



SENIOR AND GRAND CHAMPION BROWN SWISS COW,
SWISS VALLEY GIRL 7TH
OWNED BY HULL BROS., OHIO

THE great Empire State was on exhibition at Syracuse September 8—13. Rain and cold weather caused a considerable shrinkage in the attendance for two days yet the total figures were not as disappointing as many expected.

We are all familiar with the fact that New York State and dairying are linked together for life and with this in mind the average out-of-state visitor usually spends a good share of his time sizing up the many interesting booths and exhibits in the dairy building. The much discussed co-operative organizations are also worthy of attention and evidence as to their worth is easy to secure.

The dairy cattle show consisting of the five breeds was about on a par with last year. Holsteins, of course, were represented by more animals than any other breeds. The Guernsey show was next in size, closely followed by the Jerseys. About 550 animals were shown.

Bob Haeger judged the Holstein classes and found his best male to be King Pietertje Jewel Korndyke owned by Pinery Farms. This aged bull won at Ohio and Maryland this year and also has an enviable 1923 show record. Hargrove & Arnold won the excellent grand champion female honors with their excellent three-year-old, Dorothy Ormsby Piebe.

Adam Seitz & Sons won the Ayrshire male grand championship with the show ring veteran, Cavalier's Ping Pong. Alta Crest won the corresponding female honors with Buntonhill Mable Chance. John Cochrane judged this breed.

Shorewood Resolute was selected by Judge Philipps as the grand champion Guernsey bull. He is owned by Emmadine Farms. The female grand championship went to the same herd and was won by Daylo Yuletide, a promising two-year-old.

The Jersey ribbons were tied by Jimmy Dodge. Fern's Noble Oxford Sultan, owned by Rockcliffe Farms, was the senior and grand champion. Elm Hill Farm won the female grand championship with Queen Plymouth of Lehigh. She is an aged cow.

Swiss Valley Girl 7th, owned by Hull Bros., won the female grand championship and the other Brown Swiss championship went to the same herd on Dale of Lakeview. The Brown Swiss classes were judged by R. E. Haeger.

The first prize winners of all the breeds are as follows:

Holsteins

Bull 4 years old or over—Pinery Farms, Ohio, on King Pietertje Jewel Korndyke. Bull 3 years and under 4—Karl S. Nims, Ohio, on Friend Piebe. Bull 2 years and under 3—Yates Farms, New York, on Count Korndyke Posch. Bull 1 year and under 2—Hargrove & Arnold, Iowa, on Triune Ormsby Piebe 27th. Bull, senior calf—Hargrove & Arnold on King Piebe 28th.

Cow 4 years or over—Pinery Farm on Kismet Fayne of Valley View. Cow 3 years and under 4—Hargrove & Arnold on Dorothy Ormsby Piebe. Heifer 2 years and under 3—Yates Farms on Pledge Segis Lyons. Heifer, senior yearling—Pinery Farms on Model Cornucopia Ona. Heifer, junior yearling—Hargrove & Arnold on Miss De Kol Piebe. Heifer, senior calf—Hargrove & Arnold on Neola Piebe Annis.

Senior and grand champion male—King Pietertje Jewel Korndyke. Junior champion male—Triune Ormsby Piebe 27th.

Senior and grand champion female—Dorothy Ormsby Piebe. Junior champion female—Neola Piebe Annis.

Exhibitor's herd, Yates Farms. Pair of calves, get of sire, produce of cow, and best 4 females—Hargrove & Arnold. Best 4 cows over 3 years old—Yates Farms.

Ayrshires

Bull 3 years old or over—Adam Seitz & Sons, Wisconsin, on Cavalier's Ping Pong. Bull 2 years and under 3—Ash Grove Farms, New York, on Alta Crest Ting-a-Ling. Bull 1 year and under 2—Alta Crest Farms, Massachusetts, on Alta Crest Happy Go Lucky. Bull, senior calf—Alta Crest Farms on Alta Crest Weather Vane.

Cow, 4 years or over—Alta Crest Farms on Buntonhill Mabel Chance Imp. Cow 3 years and under 4—Ash Grove Farms on Penshurst Belinda. Heifer 2 years and under 3—Alta Crest Farm on Alta Crest Powder Puff. Heifer, senior yearling—Adam Seitz & Sons on Cav. Queen of Diamonds. Heifer, junior yearling—Adam Seitz & Sons on Cav. Darling. Heifer, senior calf—Alta Crest Farms on Alta Crest Hillbrow.

Senior and grand champion male—Cavalier's Ping Pong. Junior champion male—Alta Crest Happy Go Lucky.

Senior and grand champion female—Buntonhill Mabel Chance Imp. Junior champion female—Cav. Queen of Diamonds.

Exhibitor's herd, pair calves—Alta Crest Farms. Yearling herd, get of sire, produce of cow, best 4 cows over 3 years old, best 4 females—Adam Seitz & Sons.

Guernseys

Bull 3 years old or over—Emmadine Farm, New York, on Shorewood Resolute. Bull 2 years and under 3—Emmadine Farm on Florham Abbott. Bull 1 year and under 2—F. J. Rueping, Wisconsin, on Corium Cherub's Edgar. Bull, senior calf—F. J. Rueping on Corium Snowdrop's Eric.

Cow 4 years or over—Emmadine Farm on Massachusetts Raider's Primrose. Cow 3 years and under 4—F. J. Rueping on Floridale Merry Maid. Heifer 2 years and under 3—Emmadine Farm on Daylo Yuletide. Heifer, senior yearling—F. J. Rueping on Corium Elizabeth's Dolores. Heifer, junior yearling—Orra E. Hinton, New York, on Queen Bess of Orradale. Heifer, senior calf—Emmadine Farm on Resolute's Red Rose.

Senior and grand champion male—Shorewood Resolute. Junior champion male—Corium Cherub's Edgar.

Senior and grand champion female—Daylo



FIRST PRIZE CAYUGA COUNTY, NEW YORK, GUERNSEY HERD



FIRST PRIZE ERIE COUNTY, NEW YORK, HOLSTEIN HERD



SENIOR AND GRAND CHAMPION GUERNSEY COW,
DAYLO YULETIDE
OWNED BY EMMADINE FARM, NEW YORK



SENIOR AND GRAND CHAMPION GUERNSEY BULL,
SHOREWOOD RESOLUTE
OWNED BY EMMADINE FARM, NEW YORK



PLEDGE SEGIS LYONS, FIRST PRIZE 2-YEAR-OLD
HOLSTEIN COW
OWNED BY HARRY YATES, NEW YORK

Yuletide. Junior champion female—Resolute's Red Rose.

Exhibitor's herd, get of sire, produce of cow, best 4 cows over 3 years old—Emmadine Farm. Yearling herd—F. J. Rueping. Pair of calves. Best 4 females—Gayhead Guernsey Farms, New York.

Jerseys

Bull 3 years old or over—Rockcliffe Farms, New York, on Fern's Noble Oxford Sultan. Bull 2 years and under 3—Hempstead Farms, New York, on Cowslip's Farewell. Bull 1 year and under 2—Elm Hill Farm, Massachusetts on LaSente's Golden Sultan. Bull, senior calf—Wauban Farms, Massachusetts, on Molly's Boy of Wauban.

Cow, 4 years or over—Elm Hill Farm on Queen Plymouth of Lehigh. Cow 3 years and under 4—Rockcliffe Farms on Toffee. Heifer 2 years and under 3—Elm Hill Farm on Spy Girl's Surprise. Heifer, senior yearling—Elm Hill Farm on Xenia's Peggy Rosenary. Heifer, junior yearling—Elm Hill Farm on Xenia's Dandy Actress. Heifer, senior calf—Rockcliffe Farms on Golden Maid's Rive.

Senior and grand champion male—Fern's Noble Oxford Sultan. Junior champion male—LaSente's Golden Sultan.

Senior and grand champion female—Queen Plymouth of Lehigh. Junior champion female—Xenia's Dandy Actress.

Exhibitor's herd, get of sire—Elm Hill Farms. Yearling herd, pair of calves—D. A. Curtis, New York. Produce of cow—John Lucksinger, New York. Best 4 cows over 3 years old—Waubun Farms. Best four females—M. H. & M. A. Clark, New York.

Brown Swiss

Bull 3 years or over—Hull Bros, Ohio, on Carl the 13th. Bull 2 years and under 3—Hull Bros. on Dale of Lake View. Bull 1 year and under 2—Hull Bros. on Lottie's Prince of Lake View. Senior bull calves—Hull Bros. on Bob of Lake View.

Cow 4 years or over—Hull Bros. on Swiss Valley Girl 7th. Cow 3 years and under 4—Hull Bros. on Nellie F. Beaut. Heifer, 2 years and under 3—Hull Bros. on Margaret Lake View 4th. Senior yearling heifer—Hull Bros. on Irene of Lake View. Junior yearling heifer—Hull Bros. on Militor Emma of Lake View. Senior heifer calves—Hull Bros. on Beauty of Lake View.

Senior and grand champion male—Dale of Lake View. Junior champion male—Lottie's Prince of Lake View. Senior and grand champion female—Swiss Valley Girl 7th. Junior champion female—Irene of Lake View.

Exhibitor's herd, yearling herd, pair of calves, get of sire, produce of cow, best four cows—Hull Bros.



FIRST PRIZE 2-YEAR-OLD AYRSHIRE, ALTA CREST POWDER PUFF
OWNED BY ALTA CREST FARM, MASSACHUSETTS

How to Make Stack Silage

Because there are probably not silos enough to take care of the immature corn crop this year, the feeding value of corn may be partly lost. Many farmers without silos will have soft corn.

"Those who have cows to feed and who feel they cannot afford one of the standard silos will do well to consider making stack silage of a good part of their corn crop," says Andrew Boss of University Farm. "That this can be done successfully with green bundle corn has been demonstrated in numerous instances by farmers. Stack silage is also successfully made of the corn husks and pea vines at canneries. The stack method is not so satisfactory as the use of a regular silo, but it is a reasonably satisfactory way of preserving green corn."

Professor Boss says that C. L. McNelly, county agent in Fillmore county, has made stack silage for four seasons on his farm in McIntosh, Minn., and recommends it in preference to bundle fodder corn. Mr. McNelly gives the following directions:

Make the stack about 20 feet in diameter and about 20 feet high. Keep the center lower than the outside until the top is reached when it should be filled full. A swinging pole derrick and some two-rope or "common sense" slings with which to pull up the bundles of green corn will greatly lighten the labor. Three or four slings will be needed for each load of bundles. As the sling loads are dropped on the stack near the center they help to pack it. The bundles must be distributed evenly over the surface with the butts laid to the outside. The stack will then settle evenly and firmly.

In feeding during the winter the top of the stack is kept covered with a foot or two of wild hay which can be thrown back as the silage is taken off. After a day's feed has been thrown down the hay should be replaced. This, together with the heat furnished by the fermentation of the silage, prevents extreme freezing.

Corn preserved in this way will rot in for about eight inches on the outside of the stack. Since these are the butts of the stalks the loss is not serious. The middle portion of the stack is readily thrown off for feed. The silage cures somewhat differently from the common corn silage in that it seems to develop less acid. There is a sweet molasses odor and flavor which makes it palatable and all kinds of stock eat it readily.

Georgia at Dairy Show

HOARD'S DAIRYMAN:—Georgia will be represented at the National Dairy Show this year by one of the most unique exhibits ever sent north by a southern state. The exhibit will be that of the Georgia Association—an organization of Georgia bankers, business man, and farmers pledged to aid in the agricultural development of the state. It will be devoted to showing the farmer of the Middle West what Georgia is doing in the way of improving her live stock as well as demonstrating what the Empire State has to offer the farmer who wishes to come South.

In the first place, there will be two pyramids of dairy butter showing the increase in production from 1919 to 1924. This increase has been 5,000 per cent. Then there will be an exhibit of cheeses made in the mountains of Georgia. Georgia cheesemakers have competed successfully with those of Wisconsin and New York, and the manufacture of this product has increased several thousand per cent in the last three years. Another feature of the exhibit will show the many different kinds of feed and forage crops that can be grown in Georgia.

In addition to the exhibits which will be important and instructive, there will be charts showing the comparative costs of land, buildings, feeding, and marketing between Georgia and other dairy sections; charts showing the distribution of markets for dairy products in the state; outlines of the Georgia association's plan of county organization and details of its land settlement plan and "Cow, Hog, and Hen" program.

Georgia. J. H. REED.

National Dairy Exposition

Milwaukee—State Fair Grounds
September 27th to October 4th



Wadhams Oil Company

is a firm believer in the business creed of rendering full value for cost. And it carries its advocacy and support of this principle beyond its own domain to all fields and industries which observe the doctrine of benefitting communities and producing increased returns for money and labor invested.

Therefore this space—usually devoted to Wadhams Tempered Motor Oil—is dedicated to

The Dairy Industry

Now in National Convention and Exhibition in Milwaukee

This is more than a "show." It is a giant manifestation of a giant industry, surpassing in extent and interest every previous event of its kind.

Fittingly, it is conducted in Milwaukee, the central city of the nation's greatest dairy state.

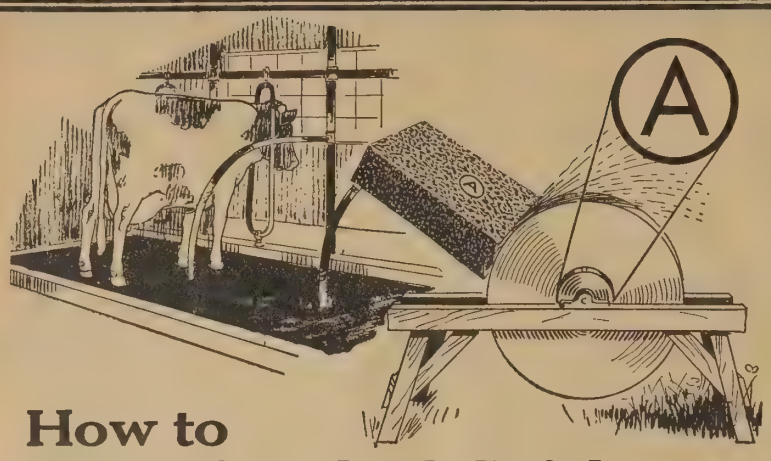
For the broad economic reasons first set forth and because of intimate interest in every movement for the advancement of dairy stock and products, the Wadhams Oil Company warmly welcomes to its home city the officers, guests and visitors of this great enterprise.

And this welcome is not limited to the brief week of this single Exposition but extends through the years when, it is hoped, Milwaukee will be the *permanent* home of the annual National Dairy Exposition.

You are urged to attend and to make the exhibit booth of Wadhams Tempered Motor Oil your place to rest and meet friends.

S. S. Cramer President

Proprietor Cramer's Farm, (*Holstein-Friesians*) Hartland, Wisconsin



How to Wear Out Cork Brick

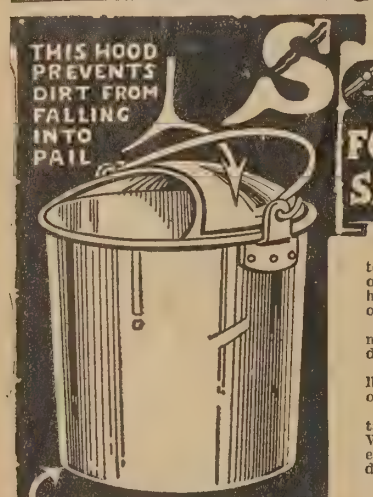
YOU might try a grindstone. That would cut it down—in time. But you will be surprised how long Circle A Cork Brick will stand even that.

No wonder, then, that in stall floors, ordinary barn wear has but little effect. Circle A Cork Brick floors last for many years. Usually they need no repairs. Occasionally, a restless cow may hollow out a few bricks, but these are easily replaced at small cost and little labor.

For economy alone, it pays to floor your barn with Circle A Cork Brick. And when *in addition* to economy, you also get warmth and comfort and safety under foot, there is no argument about it: Circle A Cork Brick is the best floor you can lay in a dairy barn.

Write for the 32-page book, "Circle A Cork Brick", and a sample. Address Armstrong Cork & Insulation Company, 112 Twenty-fourth Street, Pittsburgh, Pa.

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FOR DAIRY BARNS AND HOG HOUSES



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Bottom and sides are one piece. Both interior and exterior surfaces are perfectly smooth, so there are no seams or crevices to harbor bacteria. The Duro Pail is made of heavy gauge steel heavily tinned, and will give a lifetime of service.

The Duro Seamless Hooded Milk Pail is strongly recommended by dairy authorities, for its use prevents dust and dirt from falling into the milk pail during milking.

Duro Pails are made in 14-qt. size only, and weigh 7 lbs. each. They may be supplied without hood when so ordered.

Send your name and address today and the Duro Sanitary Seamless Hooded Milk Pail will be shipped at once. When delivered pay the postman $2.25, (and a few cents extra for postage). Money refunded if at the end of 10 days you are not thoroughly satisfied with your purchase.

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68 W. Kinzie Street, Chicago

The WINDMILL with a RECORD



The Auto-oiled Aermotor has behind it 9 years of wonderful success. It is not an experiment.

The Auto-oiled Aermotor is the Genuine Self-Oiling Windmill, with every moving part fully and constantly oiled.

Oil an Aermotor once a year and it is always oiled. It never makes a squeak.

The double gears run in oil in a tightly enclosed gear case. They are always flooded with oil and are protected from dust and sleet.

The Auto-oiled Aermotor is so thoroughly oiled that it runs in the slightest breeze. It gives more service for the money invested than any other piece of machinery on the farm.

You do not have to experiment to get a windmill that will run a year with one oiling. The Auto-oiled Aermotor is a tried and perfected machine.

Our large factory and our superior equipment enable us to produce economically and accurately. Every purchaser of an Aermotor gets the benefit from quantity production. The Aermotor is made by a responsible company which has specialized in steel windmills for 36 years.

AERMOTOR CO. Chicago Kansas City Dallas Minneapolis Des Moines Oakland

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wisc.

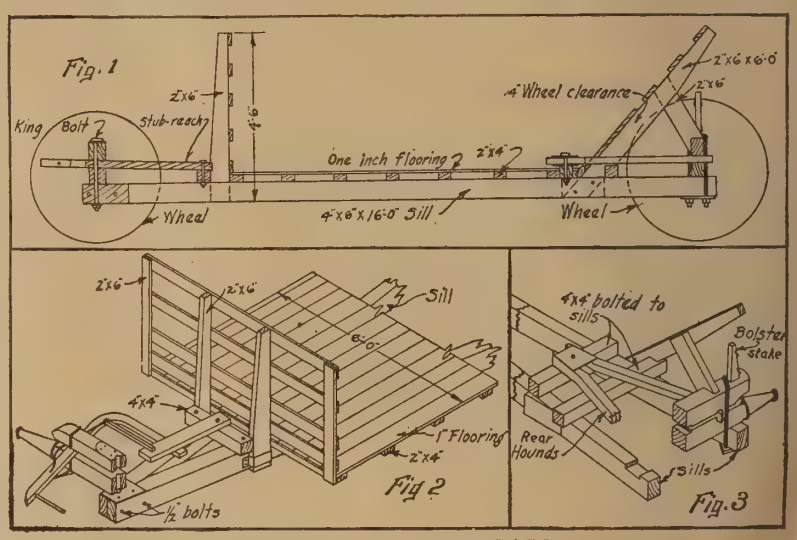
Two Types of Low Down Racks

N. S. FISH, Wisconsin College of Agriculture

HOW many times have you wished for a low down rack, only not to have it because you thought it too troublesome or too hard to make? Some farmers have found such racks or wagons to be one of the most handy and labor saving implements on the farm.

A low down rack is built low enough to enable the driver to pitch a load on himself, thus eliminating the pitchers in the field. The elimination of the pitcher means the reduction of several men on a crew. This is of considerable importance to the farmer who has to contend with high wages and scarcity of labor.

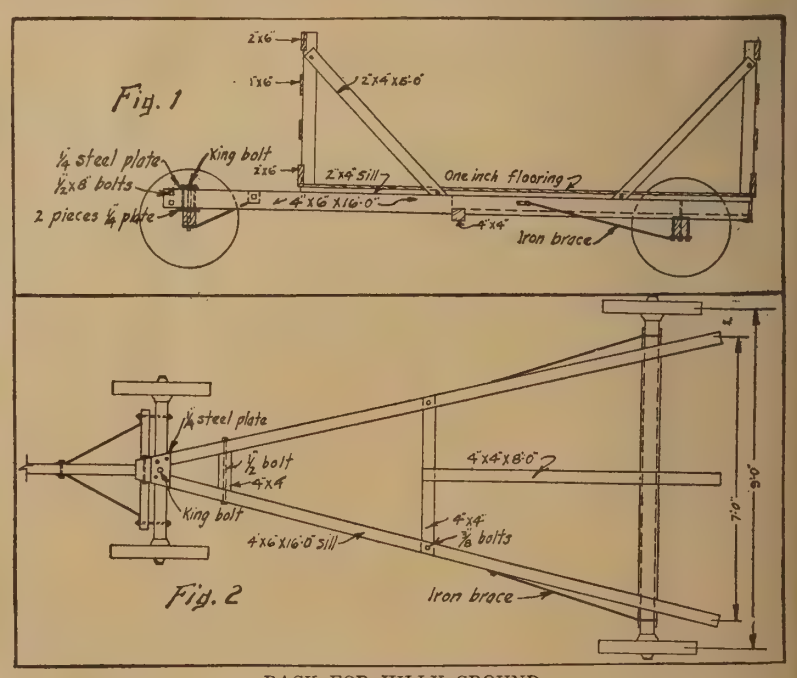
Many other things, such as fertilizers, fence posts, and fencing, can be more easily handled on low down racks. Lifting that extra foot or two tires one and this is what the low down rack overcomes.



RACK FOR HAULING SILAGE

Figures 1, 2, and 3 illustrate a low down rack that can be built by taking the running gears from any old farm wagon. It is not necessary to buy wheels of less diameter as the sills are beneath the gears, as shown in Figure 1. Figure 2 is a detail showing connection of the sills with the front running gears and Figure 3 for the rear gear. It will be noticed from the drawings that it is not necessary to do any remodeling of either gears to make this type of rack.

Two by fours are placed upon the sills and the flooring runs lengthwise as shown in Figure 2. The flooring can be run crosswise using 2"x4" strips on the side, thus eliminating the use of 2"x4" joists. This rack is well adapted for hauling corn from field to cutter.



RACK FOR HILLY GROUND

Figures 1 and 2 illustrate another type of rack. This type is well adapted for hilly sections. The sills are placed above the running gears while the other rack has them below. With this type it is necessary to have wheels of not more than thirty inches in diameter to make the sills low enough.

The rear axle is spliced to make the tread nine feet in width. This can be done by using a 4"x6" and a 2"x8" and clamping the stubs between by use of large U-bolts. The sills are of the same size as in the other rack, being bolted in the form of a V, having a spread of seven feet at the rear end.

The rack can be made eight feet wide by twelve or more long. By limiting the length of the rack to twelve feet, a driving platform can be placed on the frame in front of the rack.

If one would not care to splice the rear axle to make it wider, a standard axle could be used. In this case the wheels could project through the floor making it necessary to build a housing over them.

The construction of the baskets for either type can be made as shown or similar to the average bundle rack.

Silage Cuts Cost of Milk

A comparison between two dairy rations, one consisting of alfalfa hay, a good grain mixture, and corn silage; the other, alfalfa hay, the same grain mixture but no silage, made at the Purdue University Agricultural Experiment Station, showed that the ration containing a succulent roughage produced milk for fifteen cents per hundred pounds less than the no-silage ration, and animals fed this ration maintained their live weight during the test while the cows receiving the no-silage ration lost in live weight. The two rations were compared under similar conditions and were conducted in such a way that they apply to any dairy farm in Indiana.

The grain ration consisted of a mixture of ground corn, ground oats, wheat bran, gluten feed, and cottonseed meal. The grain was fed according to the amount of milk produced daily. The alfalfa hay was fed at the rate of two pounds per day for each hundred pounds live weight with the no-silage ration, while only half of this amount was fed with the silage ration. Silage was fed according to the live weight of the animals, about three pounds being allowed daily for each hundred pounds of live weight.

Records were kept of the milk and butterfat produced. The animals were so selected that the two groups (4 cows in each group) produced practically the same amounts of milk at the start. Group one, or the silage fed group, increased their production for a short time while the other group began to decrease in production immediately.

As the stage of lactation advanced, the production would of necessity decrease, but group one maintained its production much more evenly and over a longer period than the other group. The difference in maintaining live weight must also be considered. Group one maintained its live weight, while the other group lost about one and one-half pounds per animal per day during the time the no-silage ration was fed. This loss in live weight was not due to under-feeding. When calculated according to modern feeding standards, the no-silage ration provided 53 per cent more protein than the required amount, and 35 per cent more than the ration fed to Group one.

The feed required to produce 100 pounds of milk by each ration is of importance. Group 1 (silage group) required 25.8 pounds grain, 39.3 pounds hay, and 119.2 pounds silage for each 100 pounds of milk produced. Group 2 required 27.5 lbs. grain and 88.4 pounds hay. This shows that 119.2 lbs. silage replaced 49.1 lbs. hay and 1.7 pounds of grain. Figuring grain at $2.00 per hundred and alfalfa at $15.00 per ton the silage returned $6.75 per ton. But this is not all. Group one produced 15 per cent more milk during the test than the no-silage group.

The comparison between the two rations indicates three advantages in favor of the use of silage in the ration:

1. The saving in the cost of production of 15 cents per hundred pounds of milk.

2. Maintaining live weight of animals.

3. An increase of 15 per cent in milk production.

The results of this comparison would seem to indicate the advisability of more general use of silage in Indiana. This is especially true where a liberal supply of alfalfa hay is not available and the corn crop is not ensiled. Not only is the corn fodder less palatable than the silage but considerable waste occurs when the crop is being fed during the winter.—Purdue College of Agriculture.



IMP. DOT OF MILL FARM, OWNED BY QUINEILO FARMS CO. OF WISCONSIN

This Guernsey cow recently completed a record of 11,689.7 lbs. milk containing 531.48 lbs. butterfat in Class E. The heifer was given the same care and feed received by the rest of the milking herd and was milked but twice daily.

Nebraska Creamery Course

The dairy industry, unlike many industries, is not confined to any one locality. This with the steady growth affords an opportunity for well trained men. Proper training for such work is only obtained by actually performing the different operations. This with a knowledge of the underlying principles must be understood to successfully handle such perishable product as milk. Those interested in the industry may obtain such a course at the Nebraska College of Agriculture.

The course is open to those having completed the eighth grade or those having had practical experience in creamery work. The student should be in good health and willing to work. There is no tuition but a fee of $10.00 is required. Necessary books, white suits, and rubber shoes will cost $15 to $20 per student. Board and room may be obtained near the campus for from $6 to $10 per week.

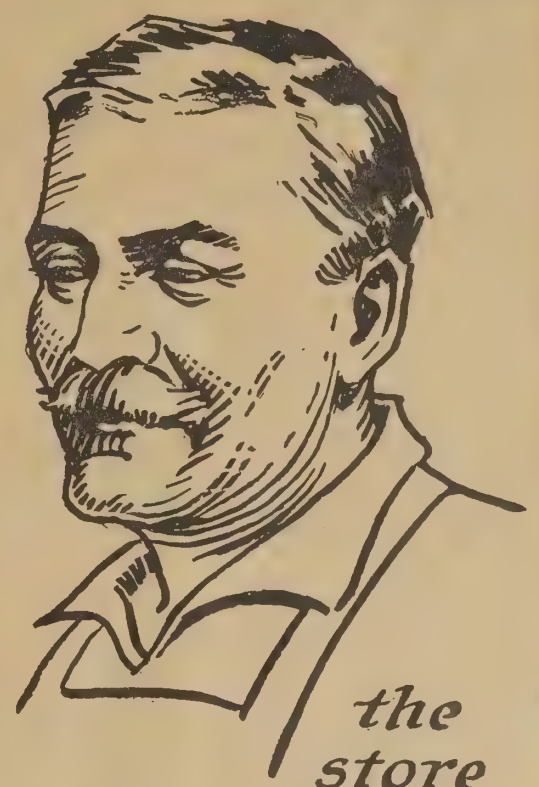
The dairy building is fully equipped and the creamery is run on a commercial basis. Various dairy products are manufactured and sold, including market milk, cream, butter, ice cream, lactone buttermilk, malted milk, cottage and cheddar cheese. A complete refrigerating system is contained in the building.

The course starts October 6th, 1924, and finishes April 17th, 1925. Those desiring further information may address Professor H. P. Davis, Dairy Husbandry Department, University of Nebraska, Lincoln, Nebraska.

Uncle Ab says most folks can afford to make a trade at the rate of about a dozen opinions for one real conviction.

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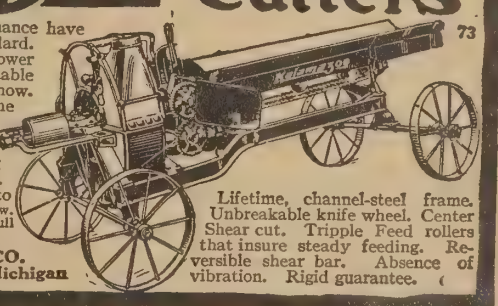
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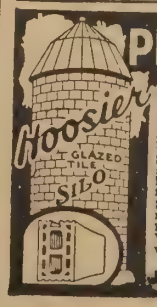
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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.

Oct. 17 and 18—International Association of Dairy and Milk Inspectors at Detroit, Michigan.

Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition. Portland, Ore.

1924 National Dairy Exposition Program

SATURDAY, SEPT. 27

Exposition opens at State Fair Grounds.

Factory Machinery and Supply exhibit opens at Milwaukee, Auditorium at 10 a. m.

Dairy Parade—10 a. m.—through downtown Milwaukee streets.

College Students' Cattle judging contest, Live Stock Pavilion, State Fair Grounds.

MONDAY, SEPT. 29

City Milk Dealers' Day.

Grade Cow Judging, Fair Grounds.

College Students' Dairy Products Judging.

Boys' and Girls' Cattle Judging Contest, Live Stock Pavilion State Fair Grounds, 7:30 a. m.

Farmers' Judging Contest begins Fair Grounds.

International Association of Milk Dealers' Convention, Auditorium, 10 a. m.

American Dairy Science Association Meeting, Engelmann Hall, Auditorium, 9 a. m. Committee rooms, Auditorium, 1:30 p. m.

American Guernsey Cattle Club, annual meeting, Gimbel's restaurant, 7 p. m.

TUESDAY, SEPT. 30

Dairy Pioneers' Day.

Iowa Day.

Creamery Operators' Day.

Guernsey Cattle Judging, Live Stock Pavilion, Fair Grounds, 9 a. m.

Grade Cow sale opens, Fair Grounds.

National Creamerymen's Conference, Auditorium.

National Dairy Union, annual meeting.

International Milk Dealers' Association convention, Plankinton hall, Auditorium, 10 a. m.

Boys' and Girls' Demonstration team contests begin.

County Agents' convention, Women's building, Fair Grounds, 7 p. m.

American Dairy Science Association Annual Banquet.

National Dairy Council, Plankinton hall, Auditorium, Evening Meeting, for Dairymen only.

WEDNESDAY, OCT. 1

Cheese Factory Operators' Day.

Milwaukee Day.

Illinois Day.

Holstein cattle judging, Live Stock Pavilion, State Fair Grounds, 9 a. m.

National Cattlemen's Conferences Women's Bldg., Fair Grounds, 10 a. m. Hon. Frank O. Lowden, presiding.

National Cheese Association Meeting.

American Dairy Federation Delegate Meeting, Wisconsin hotel, 4 p. m.

American Dairy Federation Banquet, Wisconsin hotel, 7 p. m.

THURSDAY, OCT. 2

Wisconsin Day.

Minnesota Day.

Michigan Day.

Ice Cream Manufacturers' Day.

Jersey Cattle Judging, Live Stock Pavilion, Fair Grounds, 9 a. m.

Cow Testers' Meeting, Fair Grounds.

Agricultural Teachers' Convention, Women's Building, State Fair Grounds, 7 p. m.

Jersey Cattle Club meeting.

FRIDAY OCT. 3

Ayrshire Cattle judging, Live Stock Pavilion, Fair Grounds, 9 a. m. Brown Swiss judging, Live Stock Pavilion, Fair Grounds, 9 a. m. Judging of Calf Club calves, grandstand, State Fair Grounds.

SATURDAY, OCT. 4

Final Day of the National Dairy Exposition.

Champion Four-year Producer



ADIRONDAC WIETSKE DAIRY MAID, OWNED BY BRIDGFORD HOLSTEIN CO., CALIFORNIA

A PRODUCTION of over 31,500 lbs. milk and 1,000 lbs. butterfat in one year for the fourth consecutive time, makes Adirondac Wietske Dairy Maid, an eleven-year-old pure-bred Holstein-Friesian, the only cow in the world to hold such a record. She recently completed her last yearly period with 31,517 pounds milk and 1,005.82 pounds butterfat, equivalent to 1,257.2 pounds butter, which, with the three records made in previous years, gives this cow an average production for four successive yearly tests of 32,349.9 pounds milk and 1,048.13 pounds butterfat, equivalent to 1,310.1 pounds butter. She is also the leading cow in the United States for ten months' production of both milk and butterfat with a record of 27,577.3 pounds milk and 872.12 pounds butterfat, made at ten years of age. All of her records mentioned were made in the herd of her owners, the Bridgford Holstein Company, California, after she was nearly eigh years of age.

Like all other cows on long-time test on the Bridgford farm, "Adirondac" was kept in a box stall with free access to an adjoining paddock. She was kept in the stall only in severe weather. From April to October she was run on pasture several hours each day. She never received special care or was pampered in any way, but always was kept in dry, well ventilated quarters. She received concentrates, four times a day at each milking the year round, consisting of a mixture of mill run, rolled barley, cracked corn, oil cake meal, and soy bean meal. The total weight of this grain mixture consumed each day varied from 12 to 15 pounds. To it was added dried beet pulp because of its slightly laxative and cooling effect. She received also all the alfalfa hay she would clean up twice daily and during the summer months was given green cut alfalfa twice a day. This was replaced by corn silage from November to May.—Holstein-Friesian Extension Service.

The Kind of Lime to Use

Ground limestone, screenings, burned lime, hydrated lime, air-slaked lime, shells, refuse lime and marl may all be used for neutralizing soil acidity. Which of these different forms of lime should be used in any particular case should be determined by the cost at which a given amount of calcium carbonate or its equivalent, in a reasonably fine condition, can be delivered to the soil. Aside from this, there is no good reason for discriminating against any of these materials. Neither should magnesium limestone be considered either more or less valuable than the ordinary calcium limestone.

Theoretically, 100 pounds of finely ground limestone, 56 pounds of freshly burned lime, 74 pounds of hydrated lime, and about 90 pounds of air-slaked lime have equal acid neutralizing power. In calculating the cost, the price of the material, the freight if any, the cost of hauling and the labor involved in spreading it on the land, should be taken into account. If finely ground limestone can be secured delivered at the nearest railroad station at $3.00 per ton, then, allowing for the smaller cost of handling equivalent amounts of the more concentrated forms, fresh burnt lime should be secured at the station for $6.00, hydrated lime for $4.50, and air-slaked lime for about $3.50 per ton.

Usually ground limestone will be the most economical and most satisfactory material to use. In considering the price, the fineness of grinding and the freight rate must be taken into account. The fine material is worth more than the coarse. If coarse material is used, it will require more to get the same immediate acid neutralizing effect. A good grade of ground limestone should be fine enough so that all will pass through a 100-mesh sieve. The objection to coarse material, such as screenings, is that it acts too slowly. Only the fine dust will act immediately.—Purdue College of Agriculture.

Reduced Railroad Rates

A reminder on the reduced railroad rates granted visitors to the National Dairy Exposition, opening at Milwaukee, Wis., on Sept. 27, is given those who have not definitely acted in the matter of securing transportation. An open rate of a fare and a third is granted, without certificate, to the following territory: Eastern Montana, Illinois, Kansas, Missouri, Nebraska, Minnesota, North and South Dakota, Iowa, Northern Michigan, and Wisconsin. A fare and a half rate, with certificates, is offered those who wish to attend conventions held in connection with the exposition. For persons farther away from the territory mentioned, a fare and a half rate, with certificate, is offered to all. A special fare and a half rate from Chicago is also offered by one road.

Advertising

A subscriber to a Missouri paper, once edited by Mark Twain, wrote him stating he had found a spider in his paper and wanted to know if it meant good or bad luck. Mark replied:

"Old Subscriber: Finding a spider in your paper was neither good luck nor bad luck for you. The spider was merely looking over our paper to see which merchant is not advertising, so that he can go to that store, spin his web across the door, and live a life of undisturbed peace afterward."—The Clay Worker.

Trees are the shelter of man and beast and bird.

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

Washington, D. C., Sept. 16.—The Bureau of Dairying of the U. S. Department of Agriculture will be about as well represented at the National Dairy Exposition this year as usual. In addition to the big special exhibit, along lines described some weeks ago, there will be a laboratory equipment and a number of the members of the staff of the Bureau to be of all possible assistance by explaining the exhibit, and putting inquirers in touch with the ways in which the Bureau may be of service to those engaged in any part of the dairy industry. Dr. Larson, chief of the Bureau, will spend most of his time at the show in Milwaukee and has already made arrangements to speak at various gatherings to be held there. Dr. Rogers, chief of the Laboratory Service, will not remain for the full week in Milwaukee, because of other engagements calling him back to Washington. The Dairy and Poultry Markets section of the Bureau of Agricultural Economics will be represented as usual by Roy C. Potts, and several assistants and their exhibits will be installed as usual as a part of the general Department of Agriculture exhibit.

The proceedings of the World's Dairy Congress are finally available for distribution. Proof reading was handled through the Dairy Division, and the document is printed as a congressional document. There are nearly 1600 pages of the text with many charts and other additions.

The importance of the new ruling from the Treasury Department as to adulterated butter was so great that as soon as a copy was available the National Dairy Union had copies made and forwarded to all members, as well as to the dairy and agricultural press. This Treasury Decision was issued to clear up the situation created by the U. S. Supreme Court decision in the Tilden Produce Case invalidating the previous ruling which held that all butter containing over 16 per cent of moisture was *per se*, adulterated. The new ruling quotes the law to the effect that if in the manufacture of butter any process or material is used for the purpose or result of incorporating an abnormal quantity of moisture, milk, or cream, such butter is adulterated. It then proceeds to cite the result of thousands of analyses to the effect that butter with over 15 per cent of moisture will be under suspicion of being adulterated. The language of the decision, however, indicates that in every case the method of manufacture will be the test as to whether or not adulteration has been practiced and not the per cent of moisture by itself. The whole matter is still far from in a workable condition, it is believed by most persons carefully in touch with the situation, as the necessity of proving the method of manufacture in each case is considered as practically prohibitive of general enforcement of the law. There is, therefore, every likelihood of an effort to get clarifying legislation in the next session of Congress.

Mr. Hobson, the American delegate on the permanent committee of the International Institute of Agriculture, is here for a month, dividing his time between Washington and visits to large agricultural organizations that may be interested in improvement of the statistician and other services of the institute. He expects to visit the National Dairy Exposition to confer with the leaders of the industry.

W. S. Moscrip of the Twin City Milk Producers' Association, and also representing the Minnesota Co-operative Creameries and the Holstein-Friesian Association, spent several days here in the interest of maintaining and increasing the tariff on butter. He was received by President Coolidge and spent some time in conference with the chairman and staff of the U. S. Tariff Commission. He found that there was no foundation for a report that the commission had made any adverse report or even begun work on a report on the application for an increase in the tariff, but that the investigation was still in progress, both in Denmark and in this country, and that it would be some weeks before the investigations were ended and notice of public hearing could be given. There will be at least a thirty-day notice before a public hearing and no final decision until after such hearing and opportunity for all interested parties to be heard.

The banquet committee of the American Dairy Federation, in charge of the banquet to be given at Milwaukee on the evening of October 1, has announced the complete program as follows:

Time, October 1, six p. m.; place, Hotel Pfister, Milwaukee. Presiding, Hon. Frank O. Lowden, president of the American Dairy Federation.

Speakers: Hon. Herbert Hoover, Secretary of Commerce, Washington, D. C.; Harry A. Wheeler, former president United States Chamber of Commerce, Chicago, Ill.; Dr. Lee K. Frankell, vice-president of the Metropolitan Life Insurance Co., New York City; Dean H. L. Russell, Wisconsin State College of Agriculture, Madison, Wis.

Reservations to the number of several hundred have already been received. A. M. Loomis, secretary of the Federation, and acting for the banquet committee, states that while invitations have been sent generally, the attendance is not limited to those who receive invitations but the public will be admitted so far as space will permit, after sufficient reservations have been made to assure that the dairy industry representatives are all taken care of. Tickets will be available at several places in Milwaukee.

When—feeders say this

Quality as Well as Quantity

"I have used Larro for over 9 years and there is nothing that will duplicate it. Larro is the best milk feed there is. It does increase milk production."
JOSEPH NOWAK, Thompsonville, Conn.

"We have a herd of 15 Holstein cows which give nearly as much milk as some of our neighbors who are milking 25. My father says it is all in the feed. We feed Larro."
H. E. COLE, Epping, N. H.

Good Condition and High Production

"We have fed enough Larro to test it thorougly. We find it an excellent milk producer—at the same time keeping the heavy producer in good flesh."
O. O. BUSCHLEN, Bad Axe, Mich.

"My cows are in the 'pink' of condition and produce heavily. Four of my cows have tipped the scale at 60 lbs. of milk in one day; two of them have reached 65¾ and 64¼ lbs.—cows that were producing very little milk on all kinds of miscellaneous feeds. This is my result from feeding Larro and I shall continue to feed same as long as I have cows."
A. HERBERT, Westport, Mass.

Larro for Long-Time Results

"We started with one cow for our own family use and now we are keeping between 400 and 500 head on our farm, and the cows we started with and have been milking for more than 12 years are yet profitable producers. We are glad that we commenced our dairying experience in feeding Larro and have never changed since our beginning with our family milk cow."
WHITE BELT DAIRY, Lemon City, Fla.

"Your feed is the best feed on the market, as it produces the richest milk and cream. We have tried other feeds but have not found them satisfactory. We have used Larro for over 7 yrs." H. A. COUCH, New Milford, Conn.

"We have fed Larro along with other dairy rations and it gives us better results than any we have tried. We also find the longer we keep the cows on Larro, the better they milk."
W. B. BRADSHAW, Cartersville, Ga.

Where Other Feeds Had Failed

"My first sack of Larro ruined my patronage for other feeds with the exception of Larro. From that one sack I got an increase in milk and as I kept on using Larro I got better results. I wouldn't give one sack of Larro for any two sacks of other feed I have ever used."
E. H. BAKER, Ironton, Ohio.

"We have been feeding Larro for several months in a test with several orher feeds, with results which are highly favorable to Larro."
PEYTON T. GISH, Mt. Sydney, Va.

For Young Stock and Old

"I have two cows milking 100 lbs. of milk on 10 lbs. of feed apiece a day. I could get alfalfa, I think I could get 60 lbs. from these cows apiece on 12 lbs. of Larro. One of these cows is 7 years old."
C. C. ROBINSON, Annapolis, Md.

"We think Larro feed is certainly great, and our whole herd looks fat and nice, and has produced lots of milk this winter We have one cow 14 years old that gives 42 lbs. of milk a day. We feed the calves on Larro and like the feed.'
L. E. WETMORE, Canfield, Ohio

For Economy and Profit

"I have thoroughly tried out practically all standard makes of dairy feed and mixed many kinds myself, but have found nothing which will produce as much milk of fine quality—a regular amount—and keep the cows in fine condition like Larro does. It will give me at least 15% to 25% more profit than anything else I have ever found. If I had used it exclusively for the past five years, I would have saved many thousands of dollars.'
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"I use Larro as ever and am satisfied with the results from it. I did try some cheaper feeds, but lost out in production and was out money in the long run."
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Larrowe Bldg. THE LARROWE MILLING COMPANY Detroit, Michigan

What-is there left for us to say?

Larro

The SAFE Ration for Dairy Cows





This Warford equipped Ford truck stood in the public square at Henderson, Texas, where it attracted hundreds of people from all parts of the Lone Star State. The actual load weight on the scales was 17,255 lbs. Weight shown on the poster, 15,915 lbs., was estimated from the footage.

Write the Distributor Nearest to You

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Motive Parts Corporation,	New York City
Motor Specialties Co.	Denver, Colo.
Price Auto Service Co.	Wichita, Kan.
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Sieg Company	Davenport, Iowa
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Warford-Equipment Co.,	Seattle, Wash.
Warford-Pacific Co.,	San Francisco, Cal.
Warford-Sales Co.,	Atlanta, Ga.
Warford-Sales Co. of S. Carolina	Columbia, S. C.
Warford-Western Co.,	Kansas City, Mo.
Hammel-Gerke Company	Los Angeles, Cal.
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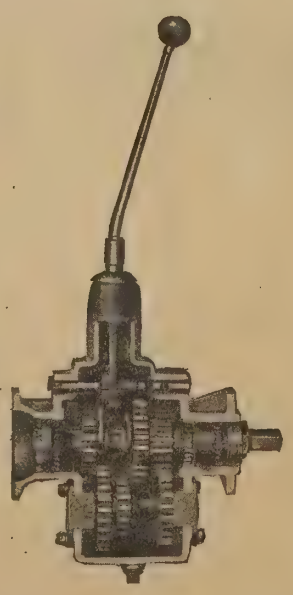
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You wouldn't expect to haul eight and one-half tons with a Ford truck as a regular practice, but it is worth something to know that your Ford could do it.

Every day, Warford, the Two-Ton Transmission for Ford trucks, is shattering that carefully built up tradition of the heavy truck makers—that a motor truck must weigh as much as the load it hauls.

Thirty thousand Warford users know this assertion is false. They know that a 200 pound man can sit in comfort and safety in a 20 pound chair. They know that the Warford equipped Ford truck will give the same performance as any standard two-ton or speed truck at one-third the first cost and with Ford one-ton operating economy.

"A Speed for Every Need."



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Fordson

To make farming more profitable—to make the farmer's life and the lives of his family happier and more abundant, is the aim of the Ford Motor Company in manufacturing the Fordson Tractor.

For by helping him to get more work done in less time and at less cost than formerly, the Fordson Tractor lightens the farmer's burden.

The vast resources of the Ford organization and the highly scientific factory methods which produce them so economically in such large numbers, and of such splendid quality, make possible the low cost price of Fordson Tractors and their superb performance.

Nowhere can the American farmer secure for so little a Tractor that will accomplish so much. The Fordson Tractor is a practical, time-saving aid in plowing, harrowing, planting, mowing, harvesting, threshing, road-mending and scraping, timber-cutting and sawing, hauling, pumping, excavating—in fact every duty the farmer must perform which requires power.

Ask your Fordson Dealer, or write us, for an actual demonstration, on your farm, of what the Fordson can do for you.

Ford Motor Company

Detroit, Michigan

HOW TO SECURE PROFIT FROM COWS

The Cow Testing Association Points Way

J. C. McDOWELL, Bureau of Dairying

SOME time ago while riding on a street car in Washington, D. C., I overheard two high school girls talking about the West. In the course of the conversation they mentioned the word Wyoming. "What is Wyoming anyway," asked one of the girls. "Is it a city or a state?" The other girl replied, "Well, your ignorance is refreshing. Wyoming is a state. I guess I know that much, and I know its capital, too. Its capital is Salt Lake City."

The dairyman who keeps no records may be a pretty good guesser, but his knowledge of the production and feed cost of his cows is likely to be about as exact as the high school girls' knowledge of geography. Ever since Dr. Babcock, in the early nineties, discovered the test that bears his name, we have had no excuse for not knowing the production records of our dairy cows.

Ordinarily the cheapest and best way to get complete records of every individual cow in the herd is through the work of the cow testing association.

What is a Cow Testing Association?

A cow testing association, as ordinarily conducted in this country, is an organization of about twenty-six dairy farmers who cooperatively employ a man to weigh the feed and to weigh and test the milk of each cow one day each month. The tester not only weighs the feed and weighs and tests the milk, but he keeps feed cost and income records of each cow in the herd in order that the dairyman may cull, feed, and breed his herd intelligently.

Origin

Eighteen years ago last January the first cow testing association in the United States began work in Newaygo County, Michigan. Since then almost every year has seen a substantial increase in the number of associations until on July first, 1923, there were 627 associations widely distributed. In fact there is only one state in the Union that has the distinction of never having had a cow testing association. Since July 1, 1923, there has been quite a gain in the number of associations until today there are about 745.

What They Do

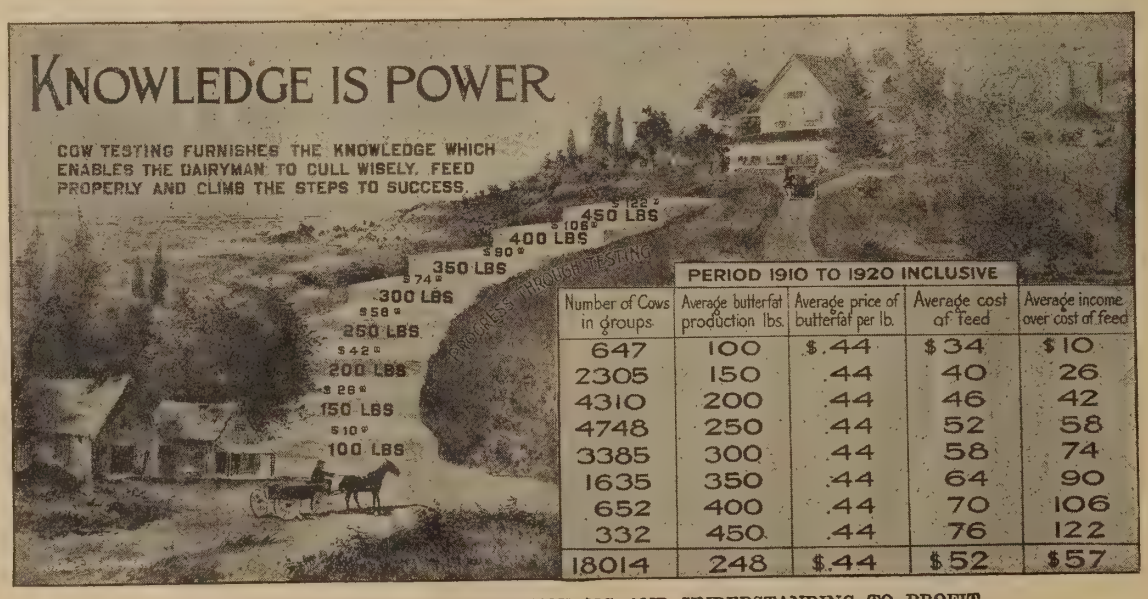
It is estimated that the average cow in the United States produces annually about 4,000 pounds of milk and 160 pounds of butterfat. The cow testing association cows produce at least 50 per cent more than that. This is shown in Department Bulletin 1069, entitled "Relation of Production to Income from Dairy Cows". That bulletin states that the average production of about 21,000 cow testing association cows was 6,077 pounds milk containing 248 pounds butterfat.

Knowledge is Power

At the National Dairy Show in Paul in 1921 a very attractive picture entitled "Knowledge is Power" was shown in the cow testing association booth. In that picture a stairway led upward from a hovel to a beautiful farm home. The stairway was labeled, "Progress Through Breeding". The riser beneath each step showed butterfat production in pounds, and the step itself showed income over cost of feed. The first riser showed a production of 100 pounds of butterfat a year per cow and an income over cost of feed of $10. Step by step the stairway showed the following figures giving the average production of each group of cows and the average income over cost of feed from the lowest to the highest producing group:

Butterfat production	Income over cost of feed
Lbs.	
100	$ 10
150	26
200	42
250	58
300	74
350	90
400	106
450	122

At the foot of the stairway a lazy farmer lives. He lives in a dilapidated hut, milks scrub cows, and over a rough and muddy road he drives an old plug horse hitched to a rickety wagon. The picture shows extreme poverty and indicates that the poverty is due to the kind of cows that farmer keeps.



KNOWLEDGE LEADS TO UNDERSTANDING AND UNDERSTANDING TO PROFIT

At the top of the stairway all is different. Here lives an up-to-date, progressive farmer. He lives in a fine farm house, owns well-bred, high producing dairy cows, and he drives along the smooth, level road in comfort in a high powered automobile. This picture shows a home of plenty and indicates that the prosperity is due to the kind of cows this farmer keeps.

The title to the entire panel on which these pictures were drawn is expressed in three words, "Knowledge is Power". Beneath that title these words are written: "Cow testing furnishes the knowledge which enables the dairyman to cull wisely, feed properly, and climb the steps to success." The figures are from a tabulation of several thousand individual cow records from various cow testing associations. The entire story is based on actual records from these associations.

Newaygo County, Michigan, Association

When the Newaygo, Michigan, association was organized the cows on members' farms were just about average cows, but the butterfat production the first year averaged 215 pounds per cow. Five years later it was 270 pounds per cow. This was the first association in the United States, and I am pleased to be able to state that the association is still in operation and that it has been in operation continuously since it began work in 1906, with the exception of a short period during the war, when the tester resigned to go into the army to fight for his country. It required a world war to stop even temporarily the work of that association.

Fairfax No. 1 Association, Virginia

The Fairfax, Virginia, association has been in operation only four years, but the average production per cow in that association last year was 8,066 pounds milk and 324 pounds butterfat. Mr. L. P. Emmerick, the cow tester last year, says in his annual report: "Fifteen of the herds in the association this past year have been in the cow testing association for at least three years. These fifteen herds, comprising 328 cow years, averaged 8,817 lbs. of milk and 347.8 lbs. fat. Herds that had been tested less than three years had a total of 296 cow years, and these cows averaged 7,572 pounds milk and 296.9 pounds fat."

Because of his great success in that association, the state agricultural college has placed Mr. Emmrick in charge of all the cow testing association work in the state of Virginia.

Grove City, Pennsylvania, Association

When the cow testing association was organized in the vicinity of Grove City the dairy cows were not above average in production. The first year, the association raised the average of all cows in the association to 225 pounds fat a year. This was done wholly through culling and better feeding, as one year is too short a time in which to get higher production through breeding. The production by years has been as follows: 1st year, 225 pounds; 2nd year, 261 pounds; 3rd year, 280 pounds; 4th year, 298 pounds; 5th year, 303 pounds; 6th year, 308 pounds.

These figures are typical of many associations. During the first three or four years the gain is rapid, and after that production advances more slowly. This shows that it is easier to climb from a low level to a higher level than it is to climb upward for a production that is already high. No association, however, has yet reached so high a level that it cannot go higher.

Continued Testing Pays

Some one may think that because it is difficult to raise average butterfat production much above three hundred pounds, the work of the associated members is done when their herds have reached that high level of production. Far from it. If they stop testing now the herds will soon drop back to where they were before. It is not enough to place the herd on a profitable basis, but it must be kept there. For that reason every cow testing association member should plan to stay in the association as long as he stays in the dairy business. Those who are in should stay in, and those who are not in should get in as soon as ever they can. It pays to test.

Mr. Emmerick's figures show that the herds that had been on test in the Fairfax association more than three years produced 1,245 pounds more milk and 50.9 pounds more butterfat than those that had been on test less than three years. This was a gain of 16.4 per cent in milk and 17.1 per cent in butterfat production, which is evidence that continued testing pays.

Where are We Going?

A friend of mine, Sam Brown of Montana, is a young man six feet two. He is very bright and witty, but he always stutters when he gets excited. One day he and I were on a train traveling across Wisconsin as far as the city of Portage. Sam had never been in Wisconsin before, so the name Portage was new to him. The conductor took our tickets, punched a slip, and put the slip in my hat. After lunch, when we returned from the diner, we discovered that our seats in the day coach had been taken by two ladies. I found a seat in that coach, but Sam went into the next coach ahead.

Pretty soon the conductor came along and seeing no slip in Sam's hat held out his hand saying, "Ticket, please." Sam felt for his ticket, but not finding it he became excited and began to stutter. The conductor asked: "Well, where are you going?" By this time Sam was so excited that he had completely forgotten the name of the station. In telling me about it afterward, he said: "Th—Th—there I was, a full-grown man. I—I—I didn't have any ti—ti—ticket and di—didn't know where I was going."

I sometimes think that those of us who are in the dairy business with low producing scrub dairy cattle are about in the same fix as Sam when he didn't have any ticket and didn't know where he was going. Why not join a cow testing association and at least find out where we are going?

Caroline Segis De Kol Pontiac is now Arizona's leading cow of the breed for production in one year as a junior three-year-old. Her record is 15,274.3 pounds milk and 570.42 pounds butterfat, equivalent to 713 pounds butter. She is owned by the U. S. Bureau of Animal Industry at Woodward.—Extension Service, Holstein-Friesian Ass'n. of America.



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THE Kohler Automatic, even in the smallest size, is a *power* plant that will take a hundred hard, monotonous tasks and turn them into play.

It will do that *in addition* to its big job of giving your family plenty of light for work hours and leisure hours, of safely lighting your buildings, and of furnishing power for automatically pumping fresh running water wherever you want it.

Grinding and drilling, cream-separating and churning, washing and ironing, sawing wood and shelling corn—these are only a few of the things that any Kohler Automatic will do, cheerfully and well, whenever you ask it.

The Kohler Automatic is designed to render a *complete* electrical service on the farm. It has exclusive advantages which enable you to get more work out of electricity. It has the all-important advantage of *not needing storage batteries* (except a small starting battery for automatic operation).

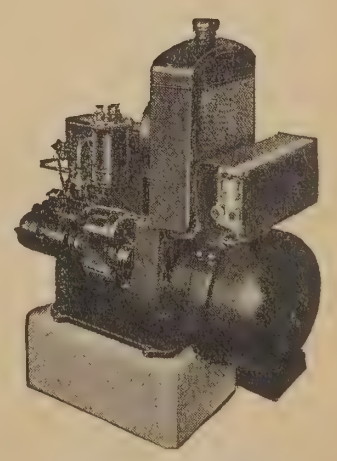
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There are Kohler Automatics ranging in capacity from 800 to 2000 watts, adapted to the needs of small farms or large. All models may be bought on convenient terms.

Let us send you the 48-page Kohler Automatic booklet. The coupon will bring you this interesting booklet by return mail.

"OUR Kohler unit has now been installed for two years and has performed to our entire satisfaction. It not only furnishes us with electric lights for our home, but also runs the electric iron, automatic electric water system, washing machine, cream separator, vacuum cleaner, and our 32-foot grain elevator. We feel that our Kohler is good for many more years of service."

[Signed] *Ernest Wittneben,*
R. F. D. No. 3, Box 10, Sanborn, Iowa



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LUCY THOMPSON

Rub, Scrub, Rub

Not near all Dairyman readers are fortunate enough to have nice, shiny, white bathtubs but we are all going to some time. Putting hope into our work is almost as good as having an assistant to help us do it and, with farm affairs taking a good turn, there are few of us who cannot afford to be optimistic.

It is good to be optimistic about something concrete, too, rather than in a vague way. It may not appeal to you but for my part it is hard to hope and plan for anything about the home that is nicer than a well equipped bathroom.

There are all sorts of baths and we know more all the time about their curative value. Cold baths and hot baths for stimulation, tepid baths for relaxing, foot baths for headaches, shower baths for joy of life (how I do want a shower bath!), and then just baths for cleanliness.

If you already have a bath tub and at the same time have small children (men are nearly as bad, though don't breathe it) you know how hard it is to keep that dark line from staring you in the eye after each time a child has bathed.

I have a friend who did a smart and useful thing. She watched the advertising sections until she found a picture in pretty colors that showed a child washing a bath tub. I suppose it was to advertise something so simple that "even a child can use it." Anyway, she cut it out and pasted it on a piece of tan cardboard that made a nice background for it and underneath it she printed this verse:

"Rub the tub,
Scrub the tub,
When your bath is done.
Leave it white,
Shining bright,
Like the morning sun.
If you should be next, you see,
You'd be the lucky one.
Rub, scrub, rub."

Put on in that up-and-down fashion it can make a very attractive picture to hang on the wall at the faucet end of the tub where it will be most frequently seen.

There is no use in thinking that any one thing will work indefinitely with a child but my friend stoutly insisted that the fun of this verse lasted long enough to establish her child in tub-cleaning habits. If your chief trouble is the men, you'll have no trouble at all in getting an appropriate picture for them.

Turnip Greens Again

Who would have thought that so many readers would be interested in a thing like turnip greens? It goes to show that it is often the little things that surprise us.

I had an interesting letter from a Pennsylvania reader in which she says:

"Evidently you have never eaten real turnip greens. In the South where turnips winter safely in the ground, a new growth comes up in the spring (February is the month in the part where I am acquainted). This new growth is not only smooth and tender but of delicious flavor—quite the best greens that grow in that section."

I am so glad Mrs. Huskin wrote in for I am hearing more all the time from people who study it about how important it is that we have some green things to eat. Surely there is no simpler way than this to have them if you live far enough south. Now that it is called to my mind, I remember having seen these delicious shoots of turnips as far north as Kansas so I guess you don't have to be below the Mason and Dixon line to grow your own winter greens. Let us hear from more of you who have good ideas tucked away in your heads.

Pepper Hash or Pepper Relish

This is a pickle that is especially nice for Christmas or for any occasion when you want to work in something red on your table. It is usually a little too expensive to be generally popular but many of us grow our own peppers and can afford a little fling in the way of making the meal look more appetizing.

Five dozen ripe, red, sweet peppers, sliced thin or chopped fine. May use green and red peppers in equal amounts. Five Spanish onions, two large heads of celery, chopped; two cups vinegar, one and one-half tablespoons salt.

Cook all together slowly for fifteen minutes, then add two cups of brown sugar, and cook all at simmering temperature for about an hour. This must not be allowed to get soft and mushy. Put in glasses and cover with paraffin.

Oil Pickles

If you try these and don't say that they are wonderful pickles it must surely be that you don't like olive oil. It is very good for you, just the same, and to cultivate a taste for it is not a bad idea.

However, the other things in the pickle subdue the taste of the oil so that even those who think they have a distaste for it will hardly object to it. Then, too, if you want to try the recipe for these people, you can always substitute the vegetable oils such as the various salad oils that are now so much advertised. Their flavor is very mild.

It is only real "company" for whom I bring out this pickle because it goes so fast I never can keep any:

100 cucumbers about three inches long, 1 quart onions, ¼ pound mustard seed, ¼ pound celery seed, 1 teaspoon black pepper, 1 cup sugar, 1 quart vinegar, 1 pint olive oil.

Slice cucumbers and onions very thin and let stand in brine over night. In the morning drain, and if too salty, wash with clear water. Mix dry ingredients with vinegar and pour oil on rather slowly beating as you put it in. You can put the cucumbers and onions in a crock and pour this mixture over them or you can mix it all together and can it. I mix mine and put it up in the odds and ends of bottles and glasses we all have around the house, covering it with paraffin.

Don't be disturbed if your cucumbers are more than three inches long or if you don't have a hundred of them. I think that most of us have cooked long enough so that we can make substitutions without spoiling things. This is particularly true with recipes like this that have no cooking and are not easily spoiled. You will have to use your own judgment in regard to the vinegar. I think that any pickle is ruined by being too sour and usually dilute my vinegar about half but that will depend on its strength.

Dressing for Fruit Salad

Mix dry ingredients, add butter, beaten egg yolk, and syrup, slowly. Cook over boiling water until mixture thickens; cool and add cream, either plain or whipped. If you have fruit for the salad and you also have canned juices put into the dressing. For this recipe take:

1 teaspoon salt
2 teaspoons flour
1 teaspoon melted butter
1 egg yolk
½ cup cream
½ cup hot syrup from any tart fruit or from sweet pickled peaches or pears.

No time like summer, for having a a good refrigerator it is much easier to make this recipe multiplied several times and put it away as it keeps well.

Mint Sauce

Did you have any old fashioned mint in your garden this year? If so, you can make your winter supply of mint sauce before the final freeze gets it.

Take a jar full of vinegar—any size you think will be enough for the winter—and into this put mint leaves and stalks that have been finely chopped or well crushed. Let stand on the back of the stove where it is warm but not hot.

When you think the mint has sufficiently flavored the vinegar, strain it off into bottles and put away as you would fruit. When you are having lamb or mutton, mint sauce is almost indispensable and all you have to do is to dilute the vinegar if it is too strong and add some sugar.

I was cooking mutton one time last winter and had no mint sauce so I thought I would buy some but, for me, the price was out of reach. I used currant jelly and we thought it almost as good.

If you have saved any little fancy bottles you may be able to please some of your friends with mint sauce as a gift; for people who like it, no small gift could be nicer.

Fall Jellies

My mother has been spending the summer with me and you could almost tell it to look at my cellar shelves. Every time there was a little bit of anything around, she cooked it and popped it into a can with the result that I am afraid that I am going to have to buy more jars for the last of the pickling. It is a mighty comfortable feeling.

Mother brought me a new recipe for jelly that I am going to pass on to you. She thinks it is the best she has ever tasted and I am anxiously waiting for the ripening of the quinces so that I can try it.

Take two quarts of cranberries

(Continued on page 295)

Miscellaneous Fashions



No. 1641—Smart Style for Ample Figures. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 requires 3¾ yards 44-inch material with ⅜ yard 36-inch contrasting.

No. 2162—Becoming Lines. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅝ yards 40-inch material with 1 yard 18-inch contrasting.

No. 2178—Attractive Apron. Cut in one size and requires 1⅝ yards 36-inch material with 7½ yards of binding.

No. 2075—Dress for the Growing Girl. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2 yards 40-inch material.

No. 2174—Middy Dress. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1⅝ yards 36-inch material for the blouse with 1 yard 40-inch material for the skirt.

No. 2187—Girls' Coat. Cut in sizes 8, 10, 12, and 14 years. Size 8 requires 2⅝ yards 36-inch material.

No. 1255—Pajamas for boy or girl. Cut in sizes 2, 4, 6, 8, 10, and 12 years. Size 8 requires 2⅝ yards 36-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

"Did you make these biscuits, dear?"

"Yes, darling."

"Well, I would rather you would not make any more, sweetheart."

"Why not, my love?"

"Because, angel mine, you are too light for such heavy work."—Flamingo.



Prolong the Life of your Linoleum or Congoleum with Valspar!



The famous Valspar boiling water test

It pays to Valspar your hard-surfaced floor-coverings! This is the opinion of Mrs. C. E. Fisher of Greensburg, Pa., who wrote us recently the following very interesting letter:

"Some years ago, during spring house-cleaning, we gave our linoleum a coat of clear Valspar Varnish, and the result was so very gratifying that it has become part of cleanup season just as much as cleaning wall-paper and scrubbing paint.

"*First*, it saves the linoleum by offering a protective coat of hard varnish against daily wear; *second*, dirt and dust cannot be ground into the material, but are easily wiped or brushed away; *third*, the whole kitchen is brightened; and best of all, it is really clean."

If you will Valspar your Linoleum, Congoleum or Oil Cloth you will add greatly to its life and keep the surface bright and smiling. Spilled greases or acids will not spot it and repeated washings with hot, soapy water will never turn it white. A Valsparred surface is absolutely waterproof, and accident-proof.

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26. WILD TURKEY
27. COOPER'S HAWK
28. MOURNING DOVE / DOVE
29. WHITE-TAIL DEER / VIRGINIA DEER
30. GRAY SQUIRREL
31. RACCOON / COON
32. FOX SQUIRREL
33. CROW
34. MOUNTAIN QUAIL / PLUMED QUAIL

Remington

Heavy Duck Load
Long Range Load

12 and 16-gauge recommended for Duck, Brant, and Jack Rabbit. No. 4, 5 or 6 Chilled or Soft Shot

20-gauge—2¾ in. shells—recommended for Duck, Pheasant, Rabbit, Partridge, Prairie Chicken and Grouse. No. 6, 7 or 7½ Chilled or Soft Shot.



Remington Game Loads are scientifically loaded to a uniform standard of velocity, pattern and penetration with moderate recoil.. They are loaded exclusively with the finest American-made smokeless powders in Nitro Club *Wetproof* Shells. *Wetproof* means just what it says.

Remington Game Loads

Good Common Sense Applied to Shotgun Shells

UP to June, 1922—there was no such thing as a specific, standardized load for a *specific kind of game.*

Then Remington Game Loads were brought out. A few thousand sportsmen tried them.

And now in 1924—hundreds of thousands of men are shooting Remington Game Loads. Shipments are going out in carload lots.

Now, *why* have Remington Game Loads become so popular in such a short time?

Simply this. As every shooter knows, there never *had* been any previous standard in loaded shells.

Sportsmen held many opinions as to the best load for shooting any specific kind of game—ducks, for instance. There were 390 loads commonly used for shooting ducks. Naturally some of these were better than others. Probably half a dozen of these loads were really better than the other 384. Many sportsmen were *guessing* at the "best load." This was equally true of suitable loads for other game.

There are only a few really distinct varieties of game hunted with a shotgun. Yet there were 3200 "prescription" loads to hunt them with. The sportsman who didn't *know* the best load to use was often given an unsuitable one.

So, Remington in a common-sense way and with its unequalled facilities for finding out just what loads are *best* for each kind of game developed *Specific Loads for Specific Game—Game Loads.*

Every Remington Quail Load is the right load—the *best* load—for Quail—and the same is true of Remington Squirrel Loads, Duck Loads and so on through the whole Game Load line. Each load is made for a specific purpose.

Shoot Out the Facts

Remington provides you with shells made to a *predetermined performance* in the three necessary respects—the velocity or speed, the pattern or spread and the penetration, all with moderate recoil.

Remington Laboratory science takes the place of "guess-work" or hearsay recommendations. Remington has a definite basis of fact on which to recommend a specific load for a specific game.

No wonder hunters everywhere demand Remington Game Loads.

Study the picture opposite and the information under the boxes on this page. Select the Remington Game Load that is made to get the game you are going out after.

Get some Remington Game Loads and shoot out the facts *for yourself.*



Duck Load
Recommended for Duck, Pheasant, Hawk, Crow, Rabbit, Partridge, Prairie Chicken and Grouse. 12, 16 and 20-gauge; No. 5, 6 or 7 Chilled or Soft Shot.



Grouse Load
Recommended for Grouse, Prairie Chicken, Pheasant, Partridge, Dove, Rabbit, Duck and Squirrel. 12, 16 and 20-gauge; No. 7 Chilled or Soft Shot.



Buck Shot Load
Long Range Load
Recommended for Deer, Black Bear and Wolf. 12-gauge; loaded with 12 pellets of No. 0 Eastern Shot.



Quail Load
Recommended for Quail, Dove, Woodcock, Rail, Plover and Snipe. 12, 16, and 20-gauge; No. 8 Chilled or Soft Shot.



Rabbit Load
Recommended for Rabbit and Squirrel. 12, 16 and 20-gauge; No 6 Chilled or Soft Shot.



Squirrel Load
Recommended for Squirrel and Rabbit. 12, 16 and 20-gauge; No. 6 Chilled or Soft Shot.



Snipe Load
Recommended for Snipe, Rail, Plover, Woodcock and Quail. 12, 16 and 20-gauge. No. 9 Chilled or Soft Shot.



Goose Load
Long Range Load
Recommended for Goose, Fox, Turkey and Raccoon. 12-gauge; No. 2 Chilled or Soft Shot.



Dove Load
Recommended for Dove, Quail, Rabbit, Partridge, Plover, Grouse and Woodcock. 12, 16 and 20-gauge; No. 7½ Chilled or Soft Shot.

Remington

THE AUTHORITY IN FIRE ARMS, AMMUNITION AND CUTLERY

REMINGTON ARMS COMPANY, Inc.
Established 1816
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Makers of Remington Cash Registers

A Study in Game Bird and Animal Life—by the famous sportsman, naturalist and artist Lynn Bogue Hunt. A lithographic reproduction in 10 colors on heavy paper suitable for framing, size 17 by 22 inches, will be sent to you on receipt of coupon and 25 cents in stamps or coin.

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(Please print Name and Address)

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P. O.....

State.....



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Coupe-Sedan
$1550
F·O·B TOLEDO

On school days, on shopping days, on Sundays, on all days of the calendar, season in and season out, the Willys-Knight Coupe-Sedan is keeping owners young and happy—a family car faithful to every trust, and smart and stylish as Fifth Avenue!

This is the car that made folding seats as old-fashioned as haircloth furniture. Doors both *front* and *rear* let everybody enter and leave without climbing over seats or feet. A Wilson-built Body—with the *capacity* of a sedan and the *sociability* of a coupe—finished in a beautiful color scheme of blue, black and nickel.

As fine as it looks, it is yet finer internally. The Willys-Knight sleeve-valve engine is famous around the world as *the engine that improves with use*—supremely smooth and quiet at any gait you drive! No valve-grinding. No bother with carbon. *None* of the clatter and griefs so often associated with ordinary poppet-valve engines.

You can have utter faith in Willys-Knight reliability. Owners report 50,000 miles and more without once having had a mechanic tinker with the engine. And in ten years of Willys-Knight history, no Willys-Knight engine has been known to wear out!

There is a definite social distinction in owning a Willys-Knight . . . abiding pride in its charm . . . lasting satisfaction in performance. The longer you drive the more you enjoy the driving—and the more value you attach to the car. Try a Knight on the road today!

Willys-Knight Models: 2-pass. Roadster $1175, 5-pass. Touring $1195, 7-pass. Touring $1325, 5-pass. Sedan $1695 (De Luxe $1895), 7-pass. Sedan $1995; all prices f. o. b. Toledo. We reserve the right to change prices and specifications without notice.

Willys-Overland, Inc., Toledo, O. Willys-Overland Sales Co. Ltd., Toronto, Can.

WILLYS-KNIGHT

and five or six large quinces that have been chopped fine. Boil these in three quarts of water until they are soft, being sure not to let them burn. After straining the juice through a jelly bag boil it about ten minutes in order to concentrate it.

Take equal parts of juice and sugar and boil about five minutes. The finest jelly is made in the small amounts but if you are in a hurry there is no law against boiling it three or four cups at a time. The quantity of this can be increased and the taste not much affected by using part apple juice. The jelly is a beautiful red and is fine served with meats.

The best jelly I have ever eaten was at a party lately and, while mother has never tasted it, she argues that it cannot equal the cranberry and quince combination. This jelly was made by boiling some tart apples and taking the apple juice with equal parts of the juice off canned (or fresh cooked) raspberries. The flavor is wonderful.

By the way, if for any reason you have not made jelly this summer you can do it this winter almost as well and as cheap. Buy the gallon tins of canned fruit, feed the fruit to the family, and make the juice into jelly. The gallons are much cheaper in proportion than the smaller sizes and the family needs the fruit in the diet.

Flies Don't Over-winter in Heated Houses

The prevailing opinion that the house fly lives through the winter as an adult, hiding in cracks and crevices of buildings, etc., appears to be erroneous. Under outdoor conditions house flies are killed during the first really cold nights, that is, when the temperature falls to about 15 or 10 degrees F. In rooms and similar places protected from winds and partially heated during the winter, flies have been kept alive in cages for long periods; but they never lived through the entire winter. In longevity experiments one record of 70 days and another of 91 days was obtained.

No uncaged house flies were found during three seasons' observations in unheated and only partially heated attics, stables, unused rooms, etc., where favorable temperature conditions prevailed. The common occurrence in such places of the cluster fly and a few other species, which may be easily mistaken for the house fly, is responsible for the prevailing belief as to the way the house fly overwinters. There is therefore no reliable evidence whatever that adult house flies emerging during October and November pass the winter and are able to desposit their eggs the following spring, although they may continue active in heated buildings until nearly the end of January.

On the other hand, there is evidence that house flies pass the winter as larvae and pupae, and that they sometimes breed continuously throughout the winter. In experiments at both Dallas, Tex., and Bethesda, Md., house flies have been found emerging during April from heavily infested manure heaps which had been set out and covered with cages during the preceding autumn. In the Southern states, during warm periods in mid-winter, house flies may emerge and become somewhat troublesome; they frequently lay eggs on warm days.

The second way in which the house fly may pass the winter is by continuous breeding. House flies congregate in heated rooms with the approach of the winter season. If no food or breeding materials are present they eventually die. However, where they have access to both food and suitable substances for egg laying they will continue breeding just as they do outdoors during the summer. Even in very cold climates there are undoubtedly many places, especially in cities, where house flies would have opportunity to pass the winter in this manner.—U. S. Department of Agriculture, Farmers' Bulletin 1408.

Our Fall and Winter Dressmaking Book Contains



page after page of attractive dresses that can be made easily and inexpensively.



besides the many dresses and house garments, our book contains a good choice of costume slips, step-ins, bathrobes, bloomers, nightgowns — pretty, intimate things, which you will find pleasure in making.



and a large variety of garments for house wear to choose from; aprons and morning dresses as pretty as they are practical, and no trouble at all to make;



and everything for the children! Tiny garments for the new arrival, undergarments, play clothes, school togs for the older boy and girl. And jaunty styles for the debutante.

Besides the styles mentioned above, our Fall and Winter Fashion Magazine shows blouses, coats, embroidery designs, Xmas gifts which can easily be made at home, and there are dressmaking lessons showing in great detail how to make several of the styles which would give the beginner a good start. Of course, patterns are obtainable for everything that is shown. It is nice to have a book like this at home because it gives you a large variety of things to choose from. It is worth many times the price asked for it, so we suggest that you send for your copy without delay. Just enclose 10 cents in stamps or coin and ask for a copy of our Fall and Winter Fashion Magazine, addressing your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis.

Friendly Talks for Farm Folks

If, by going without eating, buying a few clothes second-hand or on the installment plan and paying the rent only at the point of being thrown out, an average city worker can save up enough money to keep his car in gas and to equip it with balloon tires and an automatic windshield wiper, he calls it a good year with nothing to complain of much.

The farmer who is raising the staff of life this year has grounds for hopes that it will hold him up for a season instead of letting him down with a sickening thud.

In the write-ups of governors which the Woman's Home Companion is presenting, at least three are mentioned as being lovers of the Holstein or Jersey cow above all other hobbies or pursuits. We suggest, therefore, to gubernational candidates for office that they be photographed hereafter with a calf or cow of black and white, red or fawn persuasion and all will be well. As a vote getter milk would seem to be far ahead of barks or neighs, in our opinion.

There are far too many farmers taking summer boarders again this summer—of the bovine sort.

Grandma Watkins is going to have her hair bobbed at the age of ninty-six. Like a man, a woman is as old as she feels, which is surely her privilege.

The other day over in our neck of the woods, Jake Bigler, an earnest non-pooler, was called to account and fined for watering his milk in the good old-fashioned manner. Seems like these money-making, non-milk-joiners just can't get enough of the League's dollar.

Miss Lucille Hopkins is complaining around that when she went into Tom Newton's barber shop to get her neck shaved, Tom from long force of habit, began shaving her face after finishing up her neck. Does seem as if the ladies ran an awful risk in the once masculine bay rum emporiums.

This is to be an attempt to say a good word for that little-touted by-product of milk—straight cream. You see and hear a lot about milk, about butter, about cheese; but rarely do you see plain cream press-agented or unduly advertised. Yet cream is the frosting of the cake, as it were, and if milk does not contain just so much butterfat, not to mention butter and "cream" cheese, we raise an awful rumpus and declare one and all unfit to eat. It has actually got so that when a person thinks of cream, the vision in his mind at once declares for ice cream or Williams' Shaving. Yet everyone in his right mind knows that there is nothing better on earth to eat than a fresh whipped cream cake, or thick yellow stuff on the cereal and in the coffee. No doubt cream is perfectly able to speak for itself any day, but nevertheless we are of the humble opinion that if it were advertised as persistently and skillfully and scientifically as are the other milk products, the consumption would at once almost double, perhaps treble, as it is no trouble whatever to eat cream on anything eatable. If this belated word for the star of our milk firmanent should be heeded, this lengthy paragraph would not have been indited in vain!

New York. HELEN S. K. WILLCOX.

Stop Rust

Every rod of "Galvannealed" Square Deal fence is made of copper-bearing steel. The patented "Galvannealed" process welds 2 to 3 times more zinc coating into the wire. Copper mixed in with the steel together with the extra heavy zinc coating stops rust; therefore Square Deal lasts 2 to 3 times longer. Costs not one cent more than the ordinary kind. We'll send upon request, copy of official tests that absolutely prove these claims.

Galvannealed Square Deal Fence

has these other good points: Stiff, picket-like stay wires require fewer posts—always tight and trim, no sagging; full gauge wires last longer; famous Square Deal Knot guaranteed not to slip; well crimped line wires give live tension, secure against strains and sudden weather changes.

Two to three times more zinc —more wear—no extra price

Write today for official proof of tests, also get our catalog—and—a copy of Ropp's Calculator (answers 75,000 farm questions). All 3 free. Address

Keystone Steel & Wire Co.
1747 Industrial St. Peoria, Illinois

Notice

"Galvannealed" Square Deal is now marked with a Red Strand. Buy this longer-lasting fence—no extra price.



Always look for the Red Strand (top wire)

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



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Chas. Skidd Mfg. Co.
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$90,000 IN PREMIUMS
1924 Pacific International Livestock Exposition, Portland, Ore., Nov. 1-8

With new pavilion and arena, larger than ever, the 1924 Pacific International Livestock Exposition, at Portland, Ore. Nov. 1-8, will outrival great shows held here before, assembling one of the greatest exhibits of pure bred beef and dairy stock, horses, sheep, hogs and goats ever shown in America. $90,000 premiums. Entries close Oct. 10. Write for Premium Lists to O. M. Plummer, Gen. Mgr., 211 N.W. Bank Bldg., Portland, Ore.

More Money From Cows

Results from study of our CORRESPONDENCE COURSE IN DAIRY HERD MANAGEMENT and help given in solving your herd problems. Course approved by New York State Board of Education.

For particulars write

INTERNATIONAL DAIRY EXTENSION SERVICE
University Station, Box 15, Syracuse, N. Y.

DAIRY MARKET NEWS

FOND DU LAC, Wis., Sept. 19—Average cheese prices (majority of sales), f. o. b. shipping point: Single Daisies, 20¾c; Longhorns, 21¾c; square prints, 23c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Sept. 20: Single Daisies, 19½c. On Farmers' Call Board, Sept. 19: Longhorns, 21⅝c; square prints, 21¾c.

CHICAGO, Sept. 22—The butter market today was weak, unsettled, and in the buyers' favor. Supplies quite liberal and freely offered with concessions available in some quarters on the medium and lower grades. Buyers showed no interest beyond immediate bare necessities and trade was dull. The centralized cars shared in the weakness and operators found it much easier to buy cars than sell them at prices listed. Buyers expressed no confidence and practically no business was reported.

Fresh butter—91-score, 36½c; 90-score, 34½c; 89-score, 33c; 88-score, 32c; 87-score, 31½c; 86-score, 31c. Centralized carlots—90-score, 34c; 89-score, 33c; 88-score, 31½c.

MILWAUKEE, Sept. 22—Butter—Creamery, extra tubs, 36c; standards, 35½c; extra firsts, tubs, 34@34½c; firsts, 32@33c; seconds, 30@31c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 37½@38c; ordinary firsts (standard cases, 36@36½c; miscellaneous lots, shippers' cases returned, candled, 33@34c; seconds, dirties, 23@24c; checks, 22@23c.

Cheese—American full cream, Twins, 20@20½c; Young Americas, 20½@21c; Longhorns, 20½@21c; Daisies, single, 20@20½c; squares, 22@22½c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

NEW YORK, Sept. 22—Butter—Steady, receipts, 8,364. Creamery, higher than extras, 38@38½c; creamery extras (92-score), 37½c; creamery firsts (88- to 91-score), 34¾@37c; packing stock, current make, No. 2, 27½c.

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were firm and active during the week ending Sept. 13th. Considerable buying at primary markets by southern trade. Price advances occurred late in the week under the influence of the active demand. Total U. S. holdings of cheese on September 1 as shown by report released during the week were 76,431,000 lbs. as compared with 63,960,000 lbs. on September 1, 1923, and a five-year average of 60,251,000 lbs.

The average wholesale prices on American cheese, style Twins, for the week ending Sept. 13, 1924, for the corresponding week a year ago and for the previous week were as follows:

	Ave. for the week ending Sept. 13 1924	Sept. 6 1924	Sept. 13 1923
	Cts.	Cts.	Cts.
New York	21.1	20.7	26.0
Chicago	19.6	19.1	23.8
Boston	21.3	21.2	27.0
San Francisco	18.7	18.9	26.3
Wisconsin Boards	19.5	18.8	24.0

The receipts of cheese at these markets were 3,857,465 lbs. for the week as compared with 4,318,540 lbs. last week and 4,472,446 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were irregular and unsettled during the week ending September 13. Sentiment mixed but mostly inclined toward lower prices although scarcity of fancy butter continued to be a supporting factor. Storage report released during week showed holdings on September 1 of 156,232,000 lbs., a surplus of 53,501,000 lbs. over last year. Outcome of this situation is of growing concern. Foreign situation permitted of further exports although quantities limited.

The average wholesale prices on 92-score butter for the week ending Sept. 13, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Sept. 13 1924	Sept. 6 1924	Sept. 13 1923
	Cts.	Cts.	Cts.
New York	38.4	38.1	46.2
Chicago	37.2	37.1	46.6
Philadelphia	39.4	39.2	47.2
Boston	38.7	38.8	46.5
San Francisco	39.6	40.1	48.0

The receipts of butter at these markets were 13,417,833 lbs. for the week as compared with 13,813,177 lbs. for last week and 13,339,258 lbs. a year ago.

September Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 119 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributor's plant.

Table I. September Producers' Prices by Geographic Sections

Section	Range of prices Per cwt.	Comparison of average prices 1924 Sept.	1924 Aug.	1923 Sept.
New England	$2.80—3.87	$3.41	$2.98	$3.44
Middle Atlantic	$2.10—3.21	2.62	2.39	3.01
E. North Central	1.23—3.13	2.47	2.44	2 59
W. North Central	1.40—2.88	2.09	2.05	2.39
South Atlantic	2.38—4.94	3.46	3.46	3.41
E. South Central	1.57—3.37	2.48	2.46	2.30
W. South Central	1.55—3.72	2.54	2.26	2.83
Mountain	1.40—3.20	2.38	2.39	2.47
Pacific	1.55—3.59	2.58	2.63	2.79
United States	1.23—4.94	2.60	2.50	2.80

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers.

Table II. September Producers' Prices F. O. B. City and Consumers' Prices

	Producer Received per cwt.	Consumer pays per quart
		cents
Birmingham, Ala.		16–17
Phoenix, Ariz		10
Little Rock, Ark.		16
San Diego, Calif.	$3.89*	15
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	1.92—2.10	12
New Haven, Conn.	4.22	16
Washington, D. C.	3.20*	14
Jacksonville, Fla.	3.37	17—20
Atlanta, Ga.	2.98	
Chicago, Illinois		14
Indianapolis, Ind.	1.75	12
Des Moines, Iowa	2.90	13
Topeka, Kans.	1.90—200	10—11
Louisville, Ky.	2.04	12
New Orleans, La.	3.04	14
Baltimore, Md.	3.31*	13
Boston, Mass.	3.87*	14.5
Detroit, Mich.	3.00*	12
St. Paul, Minn.	2.50	11
St. Louis, Mo.	2.45	13
Butte, Mont.	2.56	13—14
Lincoln, Nebr.	2.00	10
Trenton, N. J.	3.06*—3.17*	12
New York, N. Y.		14
Cleveland, Ohio	3.20*—3.30*	13—14
Tulsa, Okla.	1.75	1'—20
Portland, Ore.,	1.85	11—12
Philadelphia, Pa.	3.15*	12
Pittsburgh, Pa.	3.50*	14
Province, R. I.	3.87*	14.5
Sioux Falls, So. Dak.	2.00—2.50	12
Dallas, Tex.	2.80*	15
Salt Lake City, Utah	2.15	9—10
Richmond, Va.	3.81*—4.05*	14
Seattle, Wash.	2.45*	11
Spokane, Wash.	2.61	12
Milwaukee, Wis.	2.85	11

*Basic prices for fluid milk; surplus, if any, sold at lower prices.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at producers' railway shipping points, as also price f. o. b. city, are given in Table III.

Table III. September Prices at Country Stations

At Country Stations		Freight Zones or Rates to Country Stations Prices Apply
Bridgeport, Conn.	$3.17*	58c rate.
Washington, D. C.	2.38*	35c rate
Chicago, Ill.	$2.40—2.60	All
Indianapolis, Ind.	1.23	24c rate
Baltimore, Md.	2.67*—2.73*	35c rate
Boston, Mass.	3.05*—3.14*	181-200 mile zone†
St. Louis, Mo.	1.85	34c rate
Trenton, N. J.	2.51*	28-33c rate
Buffalo, N. Y.	2.57*—2.62*	28c rate
New York, N. Y.	2.80*	201-210 mile zone‡
Cleveland, Ohio	2.90*	All
Philadelphia, Pa.	2.57*—2.60*	51-60 mile zone‡
Pittsburgh, Pa.	2.65*	All
Scranton, Pa.	2.50	30c rate
Harrisburgh, Pa.	2.10*	25c rate
Dallas, Texas	2.10*—2.40*	All

*Basic Prices for Fluid Milk.
46.5c rate ‡53c rate

Table IV gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese and cream testing 18 to 25 per cent butterfat.

Table IV. Sept. Retail Prices to Consumer

Cities	Special Milk Per Qt.	Certified Milk Per Qt.	Buttermilk Per Qt.	Cottage Cheese Per Lb.	Light Cream Per ½ Pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Albany	16	26		10	20
Asheville	18	25	10		16
Boston	18	25	10		
Baltimore		30	13	15*	16—20
Buffalo	14	26—27	10	12*	22
Chicago	23	25	10	15*	16
Cleveland	18—25	25—30	12	12—15	5—20
Columbus	17	25	7—12	12	2—13
Denver	14		8	15*	13—13½
Des Moines	15—25		5—10	14	20
Detroit	22—25	25	10—18	10—15	16
Hartford	17—22	22—35	10		18—20
Indianapolis	16		10	20	13
Kansas City	15	25	10	20	10—15
Lincoln	13	20	10	15	10
Louisville	16	24	9—12	20	16
Miami	25—30	30	20	30	25—30
Milwaukee	14	25	6	9—10	12—14
Minneapolis		20—22	12—13	12*	15
Nashville	18		10	20	16
New Orleans	18	30	13	15*	17
New York	32	28	11		
Philadelphia	14—15	30	8—12	7	15
Portland		20	11	15*	12—15
Richmond	18		8		14
Salt Lake City	15		7		15
San Francisco		25	14	20	18
Seattle		20	20	15	14—15
Spokane	15—18½		10—12	12	13—14
St. Louis	18	25	20	15	17
Trenton	16	30	12		13—14
Washington	23	30	14—15	10*	15—18

* 12 oz. pkg. †18—25% fat.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on September 1, figures being given in thousands of pounds (000 omitted):

	Sept. 1 5-yr.-ave.	Sept. 1 1923	Sept. 1 1924
Butter, creamery	110,802	102,731	156,232
Cheese, American	60,251	63,960	76 431
Cheese, Swiss	3,900	4,718	7,393
Cheese, Brick	1,819	3,235	1,881
Cheese, Limburger	1,230	1,531	1,345
Cheese, All Other	9,458	7,219	8,370

These holdings include stocks in both cold storage warehouses and packing house plants.

Noted Cow to Attend National Dairy Exposition

At the request of many breeders, the Carnation Milk Farm has decided to exhibit Segis Pietertje Prospect at the National Dairy Show which will be held in Milwaukee September 27 to October 4. It should be remembered that Segis Pietertje Prospect is the champion milk cow of the world. She produced in one year 37,381.4 lbs. milk containing 1,158.95 pounds fat. Few people fully appreciate the enormous amount of work a cow must do in order to produce better than 18½ tons of milk in a year. It staggers the imagination to conceive of the quantity of feed a cow must consume in order to manufacture that quantity of the most refined human food produced. It has taken wonderful skill to breed such an animal and wonderful skill to feed and care for her that she may produce such a wonderful record.

Give the other fellow a chance to talk; he will appreciate the courtesy and you may learn something.

Portland Cement

If you ask a dozen of your neighbors the question, "What is portland cement?", the chances are that you will get about a dozen different answers. Probably each of them will say that it is building material he has used in making concrete improvements about the farm, but very few of them will be able to tell you how it is made or why it is called "portland".

Some people still have the mistaken idea that all "portland" cement comes from Portland, Oregon, or Portland, Maine. Others think it is merely pulverized rock. Yet there is no secret about the manufacture of the material which was invented one hundred years ago by an English brick mason.

This Englishman gave this new material the name "portland" because of its resemblance, when hardened, to a building stone quarried on the Isle of Portland, on the coast of England. The name has stuck ever since, although the original material has been greatly improved and manufacturing methods have been revolutionized during the last fifty years.

Portland cement, therefore, is the general name of a commodity, just like "Iris potatoes or "sterling" silver. In country alone, it is now made by over 5 companies, each with its individual brand. Mixed with sand, pebbles, and water, it forms concrete.

The essential elements of portland cement are lime, silica, and alumina. These ingredients are secured from different combinations of materials such as limestone, clay, shale, marl, and blast furnace slag. From quarry or pit these materials are transported to the mill where they are reduced to fine powder with much heavy grinding machinery. In the process they must be correctly proportioned and thoroughly mixed so that the mixture is chemically exact.

The finely powdered raw material then goes to the kilns for burning. These kilns are huge steel cylinders lined with firebrick. The powder is burned at a temperature of between 2500 and 3000 degrees Fahrenheit, or a heat greater than is necessary to melt steel. Chemical reactions take place in this burning that give the resulting product its cementing qualities.

Coming from the kilns in the shape of white hot-clinker, consisting of glass-hard balls ranging in size from a small marble to a walnut, this material is sent to coolers and on to storage piles. Later it is ground with a small amount of gypsum, added to regulate the rate of hardening. In this final grinding the hard clinker is reduced to a powder finer than flour. Standard specifications demand that it be fine enough for at least 78 per cent of a given quantity to shake through a sieve having 40,000 holes to a square inch—a sieve that is finer than silk.

In this fine powder you have finished cement.

There is no guesswork about the quality of portland cement. Regardless of the method of manufacture or the brand name, before it is marketed it must meet the standard requirements set up by the United States Government and the American Society for Testing Materials. The farmer buying portland cement for a silo, feeding floor, or sanitary dairy barn knows that the cement he gets is just the same quality as that used for city skyscrapers, railroad bridges, or permanent concrete highways.

Approximately one-fifth of the 137,000,000 barrels of portland cement manufactured in this country last year was used for permanent improvements on American farms.—Portland Cement Association.

Carload Prices of Hay, Straw, and Feed, Sept. 13, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	28 50	28.50	.....	21.50	20.50	26 00	25.50	23 75	19 50	26 50	19.50	25.00	....	16 00	
No. 1 Clover, mixed	20.50	.....	.....	19.00	16.75	.....	.....	.....	18 00	.....	17.00	.....	.....	15 50	.....
No. 1 Clover	.....	.....	.....	.....	.....	.....	.....	.....	19.00	15.00	.....	21.00	.....	16 50	.....
No. 1 Alfalfa	.....	29 50	.....	.....		33 00	29 00	27 25	26 25	23 00	23 00	.....	17 00	19 50	27 00
Standard Alfalfa	.....	25 50	.....	.....		25.00	27.00	24.50	.....	20 00	19 00	19.00	14 50	17 75	26 00
No. 2 Alfalfa	.....	24 50	.....	.....	.....	22.00	.....	21.50	24 00	18.00	15 00	17.00	12 50	15 75	25 00
Oat Straw	13.00	14 50	14.00	12.00	13.50	....	.....	.....	10.00	11.00	8.00	....	8.50	5.00	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	31 50	.....	31 50	30.50	30.50	33.00	.....	.....	29.00	26.50	23.75	.....			
Soft Winter	33 50	.....	33 00	31 50	33 00	33 00	.....	27 00	29 50	.....	.....	25 50		24.00	34.00
Hard Winter	32 00	....	32 50	30 50	...	32.50	.....	.....	29.00	26.50		25.50	.....	24.00	.....
Wheat Middlings		....													
Spring (Standard)	33.50	....	33 50	32 50	33.00	.....	.....	.....	32 50	28.50	26.00	.....	.....	.....	.....
Soft Winter	.....	.....	39 00	36 50	33.00	40.00		.....	35 00	.....	.....	31.50		30 50	44.00
Hard Winter	.....	.....	.....	37 50	.....	37.00	.....	.....	35.00	.....	.....	31.50	29.00	30 50	.....
Wheat Millrun	33.50	.....	33.00	.....	.....	37 00	.....	.....	.....	.....	27 00	.....	.....	26.50	33.00
Rye Middlings	.....	.....	.....	30.50	.....	.....	.....	.....	.....	.....	24.50	.....	.....	.....	.....
High Protein Meals															
Linseed	52 00		50 20	49 75	.....	.....			47 00	46 00	44 00	48.00	48.00	48.00	.....
Cottonseed (41%)	50.00	.....	50.00	47 50	.....	.....	.....	42 00	45 00	46 00	46.50	45.00	.....	.....	.....
Cottonseed (36%)	45.50	....	46 00	43.00	45.50	36.00	.....	37 50	42.00	42 75	44 00	43.00	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60 00	60 00	60 00	60.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	31.00	.....	.....	27 00	28 50	27.50	.....	26 00	26.00	23.50	31.00
Gluten feed	47.95	.....	48 90	44.70	46 50	.....	.....	.....	43 70	40 80	43.90	.....	.....	.....	.....
Hominy feed (white)	47.50	.....	47 00	.....	47 00	45 00	.....	.....	45 00	43 00	.....	40.50	40 00	.....	.....
Hominy feed (yellow)	46 25	.....	45.50	.....	46.00	45.00	.....	.....	45.00	42 00	39 00	.....	40.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	42.50	41 00	.....	.....	.....	46 00
Dried Beet pulp	41.00	.....	.....	.....	40.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.00

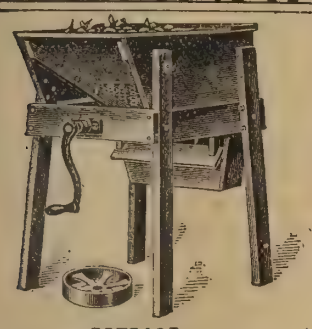
The Dairymen's Store

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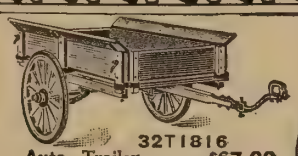
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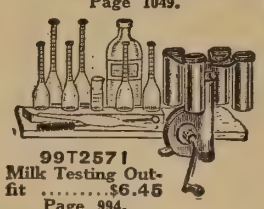
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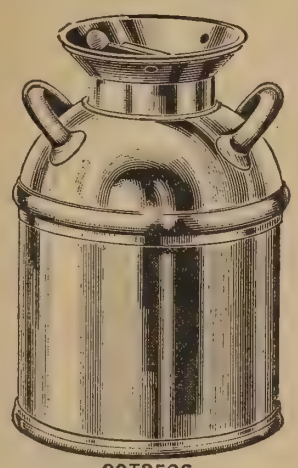
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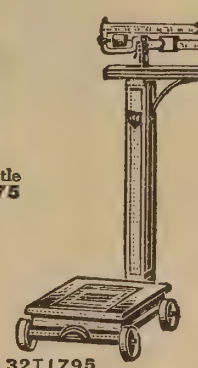
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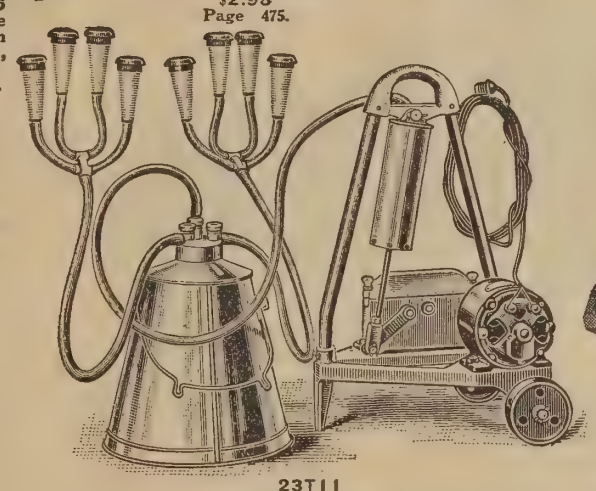
79T758
Epsom Salts for Stock, 100-lb. bag, $2.98
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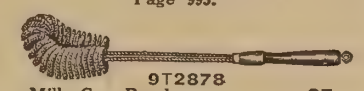
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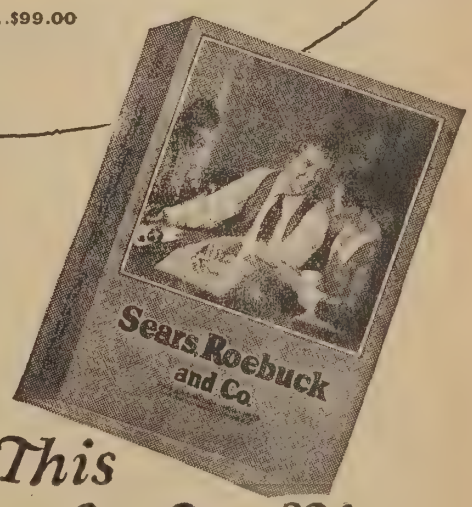


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More Bargains ~

The Dairymen's Store

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White Washing Machines	$4.58 to 8.25	High Top Shoes	$2.79 to 7.45
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Barrel Churn	5.85	Overshoes	2.48 to 3.75
Hay and Manure Forks	1.15	Service Gloves	.50 to 1.98
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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Lesson On Corn Varieties

Foreword: Here is the third installment in the "Adventures of Daniel Dare". This week Danny stars in the agricultural class at school. The subject under discussion just now concerns the varieties of corn. By his brilliant performance Dan wins the admiration of Mary, a sweet little girl who sits just across the aisle, and also makes a hit with his teacher. You'll like Danny Dare. Watch for the next chapter.

"Class in agriculture please come forward."

In response to this call from Miss Edsel a half dozen boys and girls arose from their seats and went to the front seat, among them our little hero, Daniel Dare.

"What's the lesson about today, John?"

"Somep'n 'bout v'rieties of corn, I guess. Least that's what I studied." The girls giggled.

"John, can you tell us how many races of corn there are?"

"Well, there's yellow, and white, and blue, and red corn."

"I think there are something over three hundred, Miss Edsel."

"Right you are. Can you name a few of the more popular varieties in this corn zone?"

"Well, of the yellow, Murdock, Wisconsin number 12, and Reid's Yellow Dent are favorites. In the white varieties there are Boone County White, Johnson County White, Wisconsin Number 7 or Silver King, and Iowa Silver Mine."

"Who can name two varieties of flint? Margaret, can you?"

"Smut Nose and King Phillips."

"Now for the pop and the sweet corn—Mary, how about it?"

"Baby Rice is one variety of pop corn, and Evergreen is a sweet corn. And I can't think of any more just now."

Danny's hand was waving frantically and he was snapping his fingers. Miss Edsel couldn't resist the eagerness of the boy. "Well Danny?"

"I know some more. There are two kinds of pop corn, pearl and rice.



The correct identification of the above corn varieties as given by Danny Dare, reading from left to right, in back row is Johnson County White, Reid Yellow Dent, Calico or Blue Mexican sweet, late blue sweet, late sweet. Front row, left to right, Baby Golden popcorn, white flour (sweet) corn, Early Evergreen (sweet), White Rice, popcorn, Red Rice popcorn, and Japanese Hulless popcorn.

"Yes, that's true. But that doesn't exactly answer my question. Danny, What can you tell us about the races of corn?"

Danny stood up. "There are six, Miss Edsel—dent, flint, sweet, and pop corn are the four most commonly used. Soft and pod are two other races."

"Which race is grown most extensively?"

"Nine-tenths of all the corn grown in America is dent," promptly answered Danny. "It says in the book that for every barrel of pop corn grown there are raised two barrels of sweet corn, seven barrels of flint and ninety barrels of dent. Dent and flint corn are used chiefly for feeding stock. Sweet and popcorn are raised largely for human consumption."

"Why do they raise any flint if dent is so popular?" Miss Edsel shot back at Danny.

"Flint corn is better suited to cool climates. It is also a good forage crop because it produces many suckers and its leaves and stalks are not so woody as those of dent. Because of the hardness of its kernels flint is excellent for long sea shipments. Once the kernels dry out they do not readily take up enough moisture to spoil. The hardness keeps insects from injuring the kernels."

"Most excellent, Danny. Now we'll see if some of the others can recite as well. Jimmie—how many varieties of dent corn are there?"

White Pearl and Queen Golden are popular pearl varieties. In the rice there are besides Baby Rice, Baby Golden, Red Rice, and Japanese Hulless. The kernels of the rice variety have sharp pointed tips while the pearl kernels are round at the top. There is also Golden Bantam sweet, and Blue Mexican sweet corn."

"Now Danny, I have a test for you. You seem to know varieties pretty well. Could you pick them out if you should see them? In back of my desk I have a number of samples of several varieties. Let's see if you know what they are?" Miss Edsel went in back of her desk and lifted the tray of samples onto the desk. True to his name, Danny *dared* to go up and point out to the class the different varieties shown.

"I want to tell you something about pop corn before you go back to your seats," said Miss Edsel when Danny had finished successfully his demonstration in front of the class on corn varieties.

"Have you wondered what makes pop corn pop? Here is an explanation that may interest you. Inside the kernel moisture is locked up by the hard outside covering of the kernel. When you heat the kernel the moisture is changed into steam. Suddenly the steam bursts the kernel and turns the starch inside out, making the kernel about twenty times its natural size.

"Now pass quietly back to your seats and for the next time study about the many uses of corn."

With the Badger Juniors

"Hey, cut it out! Who threw that shoe?"

Laughter broke out among a certain group in the big tent. Over in another corner came a different sound—a falling bed taking a surprised youth down with it. More laughs.



CAMP CONDUCTOR "MAC" McNEEL

"Lights out, fellows. Let's have it quiet," boomed the voice of the tent leader. Darkness descended on the mischievous and laughing boys. The lights outside on the fair grounds shone on the walls and made a very faint glow within. In a few minutes all was varvelously quiet, considering the noise that had preceded. An occasional roar from the roller coaster a few rods away smote the silence as lingering fair visitors took a farewell thrill. But little did it bother the youths, for they were tired from their day's activities and sleep came without calling.

"Good morning, Archie. You're lookin' pretty!" The youth addressed grunted, sat up half way in bed, then flopped down again. His bunkie poked him in the ribs and the jig was up. Somebody threw a blanket and made the mess worse. Finally Archie emerged victorious and perched himself astride his tormentor.

All around there was activity in the boys' tent. Although only shortly after six, the beds were beginning to look quite empty. Sunlight was streaming in through the raised sides of the tent. Another day was begun at the 4-H club camp, Wisconsin State Fair.

Mealtime was always a happy time. The eats were of the best, thanks to Mrs. G. Mason and Mr. and Mrs. E. Hausen, camp cooks. Boys and girls ate together in a big tent situated between the boys' sleeping quarters and the girls' tent. After



MARATHON COUNTY DAIRY DISHES DEMONSTRATION TEAM

Left to right: Vangel Russell (coach), Ragnhild Anderson, Ruby Maas (Captain), Veronica Schilling.

the food came the surprises. Camp Conductor Wakelin McNeel kept things going at a rapid pace, and if anyone ever escaped public speaking before, he had no chance to escape at meal time in the camp.

Four hundred and sixty young people camped at the Wisconsin State Fair. This was the biggest boys' and girls' camp held in the history of the fair. Its size did not detract from its splendid spirit in the least. There are few similar camps where the spirit of brotherly love is any stronger.

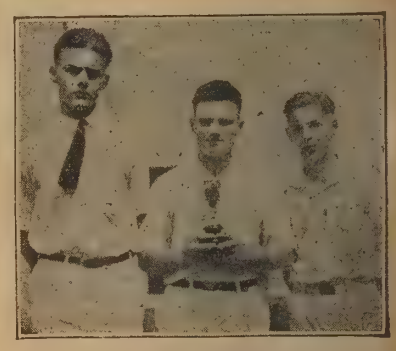
Besides the good times in camp, there was work to be done. Some 45 demonstration teams from all over the state competed for honors. There was a tremendous showing of dairy calves, some 250 head. Pigs, sheep, and poultry were also on parade. Live stock exhibits were housed separately, but the whole interior of the grandstand was given over this year to the work of the boys' and girls' clubs. Here demonstration teams "did their stuff". Here the girls exhibited the products of their labor—canning, and sewing, and garden club produce. Here also the Smith—Hughes high school agricultural students had a fine series of booths telling the story of the hen.



EVELYN HARDENBROOK CHAMPION HEALTH GIRL

The best dairy calf demonstration team was that which represented Milwaukee County—Harry Barstow, captain, Arnold J. Ullstrup and Billy Rolfs. They were coached by E. C. Thompson, county agent and club leader. Harry Barstow was elected champion demonstrator at the fair.

Another dairy demonstration team that won honors was the one from



WISCONSIN'S CHAMPION DAIRY CALF DEMONSTRATION TEAM

Left to right: Arnold J. Ullstrup, Harry Barstow (captain and champion demonstrator) and Billy Rolfs. This team was coached by E. C. Thompson.

Marathon County coached by Miss Vangel Russell, home demonstration agent, on the subject of Dairy Dishes. The team was captained by Ruby Maas with Veronica Schilling and Ragnhild Anderson as mates. E. M. Tiffany, University of Wisconsin, judged the boys' demonstration work and Mrs. Baker, Minnesota, the girls'.

One of the features of the camp was stunt night. The champion stunt was performed by Chief Cook Ernest Hausen, world's record holder for speed in picking poultry. Timed by a race track official, Mr. Hausen broke his own world's record of five seconds flat for picking one bird and did the job in four and three-fourths seconds.

Here are the winners in the dairy calf club exhibits. Leslie Woodruff won the showmen's contest:

Holsteins

Junior heifers—(1) Edw. Fisher; (2) Clarence Halle (3) Alfred Gempler. Senior heifer calves—(1) Delmont Lohnis; (2) Byron Kamrath; (3) Russell Stevens. Bull calves (1) Clarence Halle; (2) Linda Stolper; (3) Erna Stolper. Yearling heifers—(1) Olger Mickelson; (2) Irene Davis; (3) Bryce Humphrey.



CHAMPION POULTRY JUDGE, ALVIN SCHUTT

Guernseys

Junior heifer calves—(1) Walter Entress; (2) Theodore Anderson; (3) Kenneth Woodward. Senior heifer calves—(1)

Frank Fox, Jr. (2) Freddie Fisher; (3) Emil Molpas. Bull calves—(1) Wilbur Reed; (2) Frank Fox, Jr.; (3) Tom Ryan. Yearling heifers—(1) Cyril Smithmeyer; (2) Alvin Rylea; (3) Helen Kersten.

Jerseys

Junior heifer calves—(1) Max Wallace; (2) Stanley Sullivan; (3) Clois Dickan. Senior heifer calves—(1) Adolph Mistele; (2) George Mason; (3) Lawrence Frye. Bull calves—(1) Lenora Wyatt; (2) Vernon Knudson (3) Horace Wyatt. Yearling heifers—(1) Adolph Mistele; (2) Lawrence Frye; (3) Vernon Knudson.

Ayrshires

Junior and senior heifer calves—(1) Glen Nelson; (2) Dan Hanrahan; (3) William Walvoord. Bull calves—(1) Wm. Walvoord; (2) Norman Muska.

Brown Swiss

Junior and senior heifer calves—(1) Lila Schmid; (2) Victor Capaul; (3) Lester Kuehl. Bull calves—Lila Schmid. Yearling heifers—James Hensell.

Upper Michigan Camp

Three hundred seventy-three campers made the fifth annual encampment of Upper Peninsula boys' and girls' agricultural clubs the largest ever held in Michigan, according to A. G. Kettunen, assistant state club leader.

Rain and threatening skies tried to mar the occasion but were unsuccessful. The campers did make mighty good use of the new dining hall, a splendid waterproof structure in use for the first time.

Regular courses of instruction were given the boys by experts in the following subjects: judging, feeding, and caring of dairy cattle; crops, sheep, and hogs, poultry and farm mechanics, potato culture and athletics. The girls were taught nutrition, sewing, personal hygiene, and home nursing, art, music, canning, clothing, and athletics.

First place in the dairy judging contest went to the Chippewa County team composed of William Follis, Evelyn Armstrong, and Egbert Talsma. The Marquette County team won first in the dairy fitting contest. Members of this team were Clyde Berquist and Albert Johnson. Grant Gallup and Warren Brittan of Iron County won the poultry contest.

William Follis won a pure-bred Holstein heifer presented by the Loeb Farms, Michigan, to the best dairy judge in the eastern half of the peninsula, and Raymond Labyak won a similar prize from the Upper Peninsula Experiment Station for excelling as a dairy judge in the western half.

The Upper Peninsula Experiment Station also presented Leroy Oberg with a pure-bred Duroc Jersey hog for his proficiency in judging hogs, and to Hubert Greenlund a pure-bred Shropshire lamb for being the best judge of sheep.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Agricultural fairs and expositions have done much to build up the farming industry. At the present time Hoard's Dairyman is carrying a number of state fair reports which our junior readers should become familiar with. How many of you can tell which was the first state fair held west of the Alleghanies? Can you name the show ring champions in the various dairy breeds at the several fairs reported in the Dairyman? Besides fair reports, you will find several articles worth your attention in the September 19th issue of Hoard's Dairyman. For further discussion of the following paragraphs refer to this issue.

Why should a country boy be contented? Charles B. Wing, an Ohio farmer, says, "What does life give to man? Food and drink, warmth, and rest; food for body, mind, and soul, warmth from the sun and fuel that we burn, and rest for body and mind. We who live in the country are especially favored along these lines and we ought to be fairly contented."

How much can the average farmer specialize in dairying and make it pay? The Department of Economics at the Ontario Agricultural College in making a survey in one of the dairy countries found that the safest and best organization for the average man is to specialize in dairying between 61 and 70 per cent. (See article "Specialization—Does it Pay"?)

How do Danish farmers thresh? On small farms threshing is done by hand with a flail. On the medium sized farm it is done with a small horse-power threshing machine that will take a small handful at a time and thresh the kernels from the grain.

When did Danish co-operation begin? Danish farmers turned to the dairy cow to save them from low grain prices which had heretofore been the principal crop of their farms. More cows gave the idea of co-operative creameries. From this small beginning, co-operation grew to an enormous movement.

How much land is untillable? Mr. Fraser tells us in his twelfth article on Sweet Clover Pasture that one-sixth of the farm land in the nine chief dairy states is untillable.

What can we do with this land to increase its production? At least three-fourths of the blue grass pasture on our millions and millions of acres of untillable land could be reinforced with sweet clover by discing the seed into it.

What kind of seed should be sown? In order to have a continuous supply of sweet clover pasture you must have both first and second year plants every year. For this reason it is best to sow a double amount of unscarified seed, part of which will not germinate until the second year.

Prizes for Boys and Girls

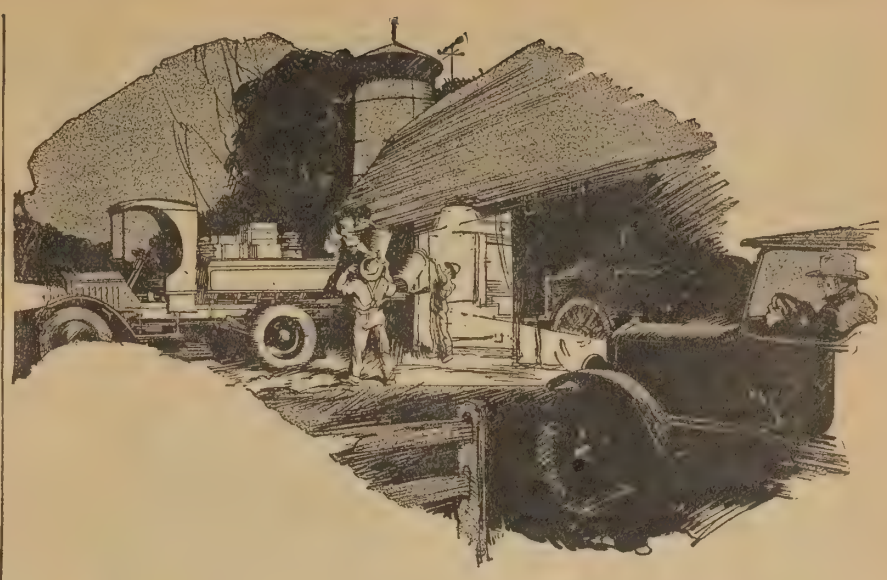
A gold watch, a silver and three bronze medals will be the capital prizes offered the five best judges among the boys' and girls' calf club entries at the National Dairy Show at Milwaukee, Sept. 27 to Oct. 4. In addition, twenty gold, silver, and bronze fobs will be awarded in the four breed classes to winners. Team prizes to the number of five, consisting of fobs, will also be awarded. The Holstein-Friesian Association has voted $250 for prizes, in addition to two silver cups and a team fob prize. The winner of the grand champion Guernsey calf will be given a placque by the American Guernsey Cattle Club. The Brown Swiss Breeders' Association is offering $100 in prizes. The club program opens on Monday, Sept. 29, with cattle judging. The demonstration team contests start Tuesday, club frolic Thursday, and calf judging Friday. Tours through the dairy region for the club members have been planned.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.



Lamps make the automobile a 24-hour utility

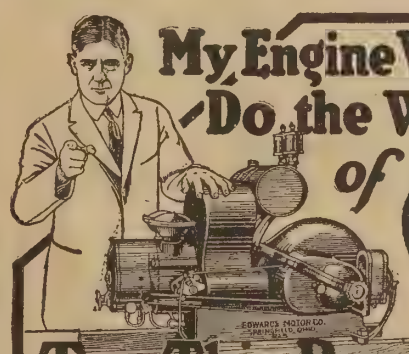
Because it is equipped with electric headlights the automobile is ready for service at any hour of the night—a dependable means of swift travel, for business, for recreation, or for the midnight emergency.

On 3,000,000 American farms the electrically-lighted automobile is a modern necessity that makes for better and happier living.

The General Electric Company makes lamps for every use, from giant ocean beacons to pocket flashlights. Every one carries the G-E monogram, a mark of scientific achievement and useful public service.

The new G-E Farm Book, giving interesting facts on the subject of farm electrification, will be sent on request. Write Section E, General Electric Company, Schenectady, N.Y.; Chicago, Ill., or San Francisco, Cal.

GENERAL ELECTRIC



My Engine Will Do the Work of 6

"I set out to build a farm engine that would have every feature the farmer wanted and none he didn't want. It has now been on the market six years. Thousands of satisfied users tell me I've succeeded. I'm proud to have this engine bear my name."
—A. Y. EDWARDS

EDWARDS FARM ENGINE

Try This Remarkable Engine FREE

There is no other farm engine like it. Simple in construction and easy to operate. It is only one engine, yet it takes the place of six engines. It will give from 1½ to 6 H. P., yet it is so light that two men can carry it easily. Set it anywhere and put it to work.

Change Power as Needed

It is a 6 H. P. when you need 6, or 1½ H. P. when you need only 1½, or any power in between. Fuel consumption in proportion to power used and remarkably low at all times. Adjustment from one power to another is instantaneous.

Burns Kerosene

Operates with kerosene or gasoline. Easy starting, no cranking. The greatest gas engine value on the market. And you can prove all of these statements to your own satisfaction.

What Users Say

Ivan L. Blake, of Hannibal, New York, says: "Only engine economical for all jobs. I run a 28-inch cord wood saw, a 24-inch rip saw, a washer, a pump, and a grinder, and it sure runs them fine. It has perfect running balance, and it sets quiet anywhere."

Clarence Rutledge, of Manitoulan Island, Ontario, says: "Have given my Edwards four years' steady work and like it fine. It uses very little fuel. I run a 28-inch cord wood saw, also a rip saw, 8-inch grinder, ensilage cutter, line shaft for shop, churn, washer, separator and pump. Have had ten other engines and the Edwards beats them all."

Frank Foell, of Cologne, New Jersey, says: "It's a great pleasure to own an Edwards engine. I run a wood saw, cement mixer, threshing machine, etc. Do work for my neighbors. Easy to move around and easy to run. I would not have any other."

Free Trial Offer

Now—I want to prove my claims to you. I want to send you an Edwards Engine for absolutely free trial. Just write your name and address on coupon and mail. I will send at once complete details about my farm engine and about my free trial offer. No cost or obligation. Mail coupon now.

MAIL THIS COUPON

EDWARDS MOTOR CO.
537 Main Street, Springfield, Ohio

Without cost or obligation, send me complete description of your engine, also details of your free trial offer.

Name.....

Address.....



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Waupaca County high grade Holstein and Guernsey cows and heifers for sale in carload lots or will assist you in buying. JENNINGS FARMS, New London, Wisconsin. 5-7

Holstein Springers and fresh cows. W. STRAUSS, R. 5, Watertown, Wis. 9-4

Pure Bred Holstein Bulls from 1,182 lb. record Ormsby sire. Cows and heifers fall and early winter freshening. Bred to Ormsby sire. Federal Accredited. ROWE BROS., Waupaca, Wis. 10-2

For Sale—22 head of T. B. tested, large, young, well marked Holstein springers. JOSEPH FISHER, Janesville, Wis. 11-2

Fifty Registered Holsteins, heavy producers. 22 half sisters by 30 lb. bull, one or all. Federal tested. LESLIE HUTCHINGS, Lake Villa, Illinois.

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

17 heavy springing, registered Holstein cows, mostly young, some daughters of A. R. O. cows and bred to $1500.00 son of Creator. Also 24 lb. son of same sire nearly ready for service. JOHN ZENTENER, Kilbourn, Wis. 11-spl

For Sale—High grade, T. B. tested, Holstein springers, carload lots. S. L. MURDOCK, Troy Center, Wis. 11-spl

For Sale—Registered Holstein herd. 40 head. Price $6,000. 25 from 35 lb. sire. 10 from 30 lb. sire. MAX WITTE, Route 5, Watertown, Wis. 11-*

We are Offering 18 grade cows to freshen this fall, and 3 Guernsey bulls. M. L. WELLES, Rosendale, Wis. 9-3

For Sale—Any part of fifty Guernsey females. Also a real good Guernsey bull. F. J. GLANVILLE, Lancaster, Wis. 8-4

Registered Guernsey Bulls nearing serviceable age. Best May Rose, Golden Secret breeding. A. R. dams, herd accredited. ALLIC KNUDSON, Brodhead, Wisconsin. 8-4

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

For Sale—Carload of high grade Guernsey cows. Pick of herd. Also yearling heifers. KENNETH MAULE, Dousman, Wis. 10-2

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

50 High Grade heifers, 15 Guernseys and 35 Holsteins from one to two years old. 28 open, 22 bred. Well grown and in good condition. Carefully selected from high producers. Price $40 to $80 each. SUNSET FARMS, Sunset Hills, Va. 10-3

Two Serviceable Guernsey Bulls for sale. Dams have over 500 lbs. fat. Six bulls 6 months old. Dams and grandams average 697 lbs. fat. Sale list. HOMER RUNDELL, Livingston, Wis. 9-Spl

Your choice twenty Registered Guernsey females. Herd sire, grandson Langwater Warrior. Must sell, need room. Bargains. GLENGERNSEY HERD, Long Prairie, Minn. 11-2

10 Registered Guernsey cows and heifers from 2 to 7 years old. J. N. McLEOD, Platteville, Wis. 11-4

Pure-bred 2 year old Guernsey bull. Gentle. Sire, Lone Pine Agitator; dam, 620 lbs. fat. EMIL BRANDT, Fennimore, Wisconsin.

For Sale—My herd of high grade Guernseys, 20 head. JOE KNUTSON, Ogdensburg, Wis.

For Sale—One of the finest Guernsey males in the state, weighs 1,800 lbs., fine show type. Also one of his male calves, four months old. EARL W. HAMMOND, Rockport, Ind.

For Sale—three well marked high grade heifers, four months old, price $125.00, two high grade well marked breed heifers, price $100.00 each. Dandy seven month bull, medium Fawn. Dam has 244 lbs. fat in 177 days, price $85.00. BANNER GUERNSEY FARM, Brookfield, Wis.

Registered Brown Swiss cows, heifers and bull calves. WM. REHBERG, Tomah, Wis. 10-2

For Sale—21 two year old high grade Jersey heifers. Pasture bred to registered Jersey bull. I. F. SUTER, Box 242, Palmyra, Missouri. 9-4

Jersey Bulls—Ready for service. Reasonable prices. RAVINE FARM, Highland Park, Illinois. 10-4

For Sale—Registered Ayrshire bull, 7 months, mostly white. WILL MILLER, Koshkonong, Wis.

For Sale—Registered Ayrshire bull, 3 months, mostly white. J. T. HAIGHT, Koshkonong, Wis.

For Sale—My entire herd of Registered Ayrshires, 20 females and 1 male. EDWARD HEGEWALD, R-1, Cedar Rapids, Iowa.

STOCK WANTED

Wanted—Carload of Holstein heifers. Give full description, age and price per head. J. A. DONOHOE & SON, Yankton, S. D. 11-2

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

Holsteins-Guernseys; High class cattle, any age, bought on commission. A. F. BENNETT, Pewaukee, (Waukesha County), Wis. 10-4

FARMS FOR SALE

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

For Sale or Lease—Highly improved stock farm of 560 acres in central Illinois near the city of Peoria. Will equip for dairy farm and will furnish some capital or take interest in the business with the right man who can furnish his own help. Give references and full information. P. O. BOX NO. 743, Washington, Illinois. 10-2

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

Southeast Missouri—"Where Everything Grows". Population increased 50% past year. A wonderful valley of alluvial soil and untold opportunity for the farmer and investor. We sell our own land in any size tracts. Terms. Write DAN AND LEO BECKER, Dept. B, 5126 South Broadway, St. Louis, Mo. 11-2

For Sale—Improved farm and cutover lands. Come and see crops growing now. Dairy industry has increased 500% in one year. Any size farm wanted. Write owner. H. B. OWEN, Pontotoc, Miss. 11-4

Farm for Sale or Trade—430 acres, one mile from county seat and concrete highway. Write for particulars. J. C. CHAPMAN, Owner, Vienna, Ill. 11-2

For Rent or Sale—240 acre stock or dairy farm, with or without stock and machinery. Two miles east Freeport, Illinois. ROBERT H. ENGLE, Rural 3, Freeport, Illinois.

345 Acre Farm—modern house, tractor, 4 horses, 43 cows, heifers, bull, auto truck, valuable machinery, vehicles, crops included by retiring owner; milk for 20 months averaged over $500; mammoth fields, 160 ton hay crop, others in proportion; valuable woodland, 1,000 sugar maples and outfit; choice fruit; 11 room house, cement cellar, bath, furnace, lighting plant; 100 ft. cement basement barn, individual drinking buckets, other barns and outbuildings, 6 room farm house. Exceptional value at $18,000, part cash. Picture and details page 48 New Illustrated Catalog; 152 pages money making bargain farms. Copy free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

Big Bargains in improved farms. Shawano, Oconto and adjoining counties, the alfalfa, potato and dairy section. Write for free catalogs. Deal direct. THE WISCONSIN FARMERS' & HOMESEEKERS' SERVICE BUREAU, Marshfield, Wisconsin.

FOR RENT

160 Acre Improved stock or dairy farm, $35. CLAUDE AUSTIN, Blue Mound, Kans. 10-2

For Rent—175 acre dairy farm, near Chicago, with 75 Holstein cattle. Small payment. Possession any time. Address BOX 299, care Hoard's Dairyman 11-3

Kansas Dairy Farm for rent on 50-50 basis. 322 acres, 3 miles from city limits. 70 acres alfalfa, 100 acres corn, balance pasture. On hard-surfaced road. 180 ton silo, modern cow barn, horse and hay barn, 4 houses. Possession can be given now fully equipped. Prefer man with own help. Write owner. J. V. ABRAHAMS, Topeka, Kansas. 11-spl

For Lease—Model dairy farm fully equipped for certified milk 18 miles from Washington. 200 cow barn capacity. Railroad station ¼ mile from barn. Ample tenant houses. 100 acres of alfalfa. Annual milk receipts $40,000. Could easily be increased 50% to 100%. Leasing farm on account of death of owner. Executors can offer attractive proposition to experienced dairyman with capital. G. M. HUTCHISON, Sunset Hills, Virginia. 11-2

FARMS WANTED

Wanted—Large going farm completely equipped; full particulars first letter; name price and whether exchangeable for city income property. Address BOX 277, care Hoard's Dairyman. 9-*

Farm Wanted—Will purchase a good going clear farm, 180 acres or more. Give location and describe your farm fully with best cash price. Write D. C. ALLEN, Room 412, 10 So. LaSalle St., Chicago.

If you wish to dispose of your farm immediately and will accept some city property, county store, hotel or garage as part payment. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

WANT TO RENT

Wanted—Eighty acre dairy farm, cash rent, with or without equipment. Experienced in crop rotations and dairy farming. Small family. References. Southern Wisconsin preferred. LESTER A. YORK, Hebron, Ill.

Wanted to Rent—Equipped dairy farm. Life experience. Good references. G. J., Juneway Farm, White Bear, Minnesota.

PARTNER WANTED

Partner Wanted—240 acres one mile city 20,000, Northern Illinois, Guernseys. $1,000 to $4,000 needed. Address BOX 300, care Hoard's Dairyman.

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. BECKENNELS, H D W. Herrick, Illinois. 9-4

For Sale—Blood hounds, registered stock, best breeding from $100 to $500 each. W. L. CLARK, Johnston, S. C. 10-2

Pair Guaranteed fox, coon hounds, $75. HERBERT REEVES, Marshall, Ark. 10-3

SWINE

Duroc Boars for Sale—Sensation's Type. 1st prize Sr. boar pig Wisconsin State Fair 1924. Also spring boars. Priced right. BRIAN L. BUNDELL, Livingston, Wisconsin. 11-2

MACHINERY

For Sale—Eight new cream separators never removed from box. Bargain prices for quick sale. THOMAS AFFEE, Box 355, Lansing, Mich. 7-5

Want to Buy a hay baling press in good condition. Give name, make, model, and year, with price in first letter. BOX 266, care Hoard's Dairyman. 8-*

For Sale—De Laval Milk Clarifier No. 100—Capacity 1000 lbs. Less tank. Good condition. P. J. GREINER, Algona, Iowa.

For Sale—Three single unit Perfection Milker outfit. Nearly new. H. W. HART, Dover, Minn.

For Sale—Two unit De Laval milker; fixtures for eighteen cows complete; bargain. J. H. STANFORD, Eagleville, Tenn.

For Sale—One large size, brand new Delco Light unit. Suitable light all buildings, furnish power. Guaranteed. Cost $600. Sell $285. DWAYNE WHITE, Elkader, Iowa. 11-2

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

TOBACCO

Natural Leaf Tobacco—Chewing five pounds, $1.75; ten, $3.00; smoking, five pounds, $1.25; ten, $2.00; pipe free, pay when received. Tobacco Guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 8-4

Homespun Tobacco, Chewing, 5 lbs. $1.75; ten $3.00. Smoking, 5 lbs. $1.25; ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 9-4

Homespun Tobacco—Chewing, five pounds, $1.75; ten, $3.00; twenty, $5.25. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Ky. 11-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie, Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

HONEY

Pure Honey, 10 lb. pail, $1.50; three pails, (30 lbs.), $4.00. AMBROSE RIEFF, Mankato, Minn. 10-2

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Wanted—Man for milk route and dairy work. Must be honest and reliable, neat in appearance and a gentleman. No cigarettes. State age, wages, experience, full particulars, and give references. Address BOX 241, care Hoard's Dairyman. 6-*

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 8-4

Eight Testers Wanted before October 1st for one year in Cow Testing Associations. Prefer single men over twenty one years of age having Short Course or herdsman training. Tell experiences in dairy cattle feeding and operating Babcock tester first letter. With salary $75 to $80. Write CRAMER, Dairy Records Bldg., Madison, Wis. 10-2

Wanted by Oct. 15th—Two clean, reliable, single men. One working herdsman, the other to deliver milk on small route and do milk house work. Good living and working conditions. State wages wanted. GEO. W. AVERY, Stephen, Minn. 10-2

Wanted—about Oct. 1st a capable working manager for large dairy farm. For information address MERTON F. BAKER, Glenwood City, Wis. 10-2

Wanted—Good dry hand milker, single. One who understands keeping barns and milk sanitary, not afraid of work. $40.00 a month and board. Address MOUNT RIGA FARMS, Big Cabin, Okla. 10-2

Wanted—Experienced dairyman; full management, new modern dairy. R. B. FUNK, Poteau, Oklahoma. 10-3

Wanted—A man and wife, no children. Man to take charge of Guernsey herd, wife to cook for small family. Two miles from town, modern improvements, De Laval Milker, etc. Address BOX 71, Lexington, Kentucky. 10-3

Wanted—Single man for four time milker on modern dairy farm in Wisconsin. Must be clean and a good milker. Apply at once stating salary and experience. Address BOX 298, care Hoard's Dairyman.

Wanted—Man for general farm work and help with Guernsey test cows. State wages and give references first letter. C. H. HULBURT, Waukesha, Wis.

Wanted—A man with family, able to help and take care of milch cows, a good dry hand milker, strictly temperate. A good six room house. FRED O'DONNELL, Box 45, Lone Rock, Wisconsin.

Wanted—Farmer, single, reliable and competent, to assist on modern farm near Milwaukee. Attractive position. References required. HUGO J. TROST, Grafton, Wisconsin.

Wanted at Once man to test in Dairy Improvement Association in the Genesee Valley. State experience and training. W. C. STOKOE, County Agricultural Agent, Mount Morris, New York.

Wanted—Woman or girl for general house work, Three in family. Good home. State wages. ROBERT MANLEY, R. 9, Waukesha, Wisconsin.

POSITION WANTED

Position Wanted as farm manager or foreman. Married, no family, six years' experience in dairying and with test cows. Understand grain farming and stock raising. Can furnish very best of references. Can commence soon. GUY F. COVELL, care Larch Wood Stock Farm, Prophetstown, Ill. 8-4

Wanted—Position as working manager of dairy farm. Life experience. Single, age 26, can furnish reference. A. G. PARKER, 918 Leland avenue, Chicago, Ill. 10-2

Position Wanted—As superintendent of manager of dairy farm by college graduate, age 40. Life of experience in all branches of the pure bred business. Guernseys preferred. Available Oct. 1. First class references. Address BOX 278, care Hoard's Dairyman. 9-Spl

Wanted—Position as working manager of a large dairy farm; practical; married; age 35; 3½ years last place. State details. Reason changing, farm sold. Address BOX 295, care Hoard's Dairyman.

Position wanted by married herdsman. Thorough knowledge of breeding, feeding, showing, A. R. work, certified milk. First class references. JOHN G. MACKENZIE, Braeburn Farms, Braeburn, Pa.

Wanted—Position. Herdsman, single, aged 38. Experienced in all lines, including certified milk, test work, fitting for show, calf raising and handling men. Best of references. Will go anywhere. Give full particulars and wages in first letter. J. MILLS, Bagatelle Farm, Old Westbury, New York.

Wanted—Position as milker or test cow milker. Am experienced. State wages, number of cows to milk, and particulars. Address BOX 297, care Hoard's Dairyman.

Wanted—Position as herdsman, Holsteins; married, 28, life experience breeding, developing, good records, 7 day and yearly; best references from present employer and others. State salary and particulars. Address BOX 296, care Hoard's Dairyman. 11-2

Wanted by married man, two grown sons, job on farm. References. Three years experience. D. S. S., Box 159, Palatine, Illinois.

Position wanted as manager on dairy farm. Lifetime experience. Age 36, married, 4 children. Or work on modern dairy farm, steady place. THOS. SORENSEN, R. 2, Spring Green, Wis.

A-1 test cow man, single, would like position by November 1 on an up-to-date dairy. Good milker, feeder, and caretaker. Holsteins preferred. State wages and particulars in first letter. P. O. BOX 214, Chagrin Falls, Ohio.

Wanted—Position in dairy. Experienced, $2000 or its equivalent. B. M. HUTCHINS, R. 5, Garnett, Kansas.

Position Wanted—By married man with small family, to work in bottling house or as herdsman. Experienced in producing milk with low bacteria count. Can furnish references. Address BOX 301, care Hoard's Dairyman.

Herdsman—Hollander wants position on first class dairy farm. Life time experience. Operate all modern dairy equipment. Best schooling. Single, 28 years. Address BOX 302, Care Hoard's Dairyman.

Position Desired—Good farmer and mechanic. Up-to-date, quick, honest and reliable. Good reference. Address BOX 303, care Hoard's Dairyman.

A Gold Medal and Porkers

The first litter of pigs of the 200 or more enrolled in the Keystone Ton Litter Club went over the top in Snyder County, Penn., recently with a weight of 2,106 pounds in the 180 allotted days.

In addition to the honor of owning the first ton litter in Pennsylvania and possibly in the United States in 1924, Elias Ritter, the grower who produced the pigs, can claim the distinction of being one of five men in the United States that ever produced a ton litter that consisted of only eight pigs. Only four times in the history of the ton litter project which has been carried on in the corn belt states for several years has such a feat been accomplished.

The eight "porkers" that have brought this unusual distinction to the Keystone State and to Snyder County are Chester Whites from a pure-bred boar and grade sow. How carefully Mr. Ritter cared for his pigs is shown by the fact that he raised every one of the original litter of eight. A gold medal is to be awarded every man in Pennsylvania who succeeds in producing a ton litter and Ritter's name heads the list.

C. D. BYRNE.
Penn. College of Agriculture

A Washington Champion

Washington's new Holstein champion is Florence Pontiac of Greenbank that now holds the state's highest record for butter production in ten months as a full age cow, according to the Advanced Registry Department of the Holstein-Friesian Association of America. In the herd of the Western State Hospital this cow produced 24,047.7 pounds milk containing 779.09 pounds butterfat, equivalent to 973.8 pounds butter.—Extension Service Holstein-Friesian Ass'n. of America.

"Gee, Mazie, I wisht some one would start a campaign fer savin' darkness instead uv daylight."

A REPLY TO SCHILLING

On Organizing Producers

G. R. RICE, Sec'y Milwaukee Co-operative Milk Producers

THE article, "Organizing New England Dairy Farmers", by W. F. Schilling, attracts attention. President Schilling is a capable writer and an able expounder of the plan of marketing milk as practiced by the Twin City Milk Producers' Association, but his conclusions tend to mislead the fluid market milk producer. Mr. Schilling recites at some length the experiences and practices of his association which are rather interesting, but he also makes some very positive statements of alleged facts which we feel impelled to question.

The two principal types of fluid milk selling organizations are named by him and placed: "The centrally controlled has everything in its favor", and "We were confronted at the outset by the fact that a bargaining organization was a fizzle". It is probably safe to assume that the intended purpose and object of any of our milk selling organizations is service to the industry and betterment of the producer's condition, shall I say dealers, also?

Mr. Schilling speaks of the Twin City Milk Producers' Association as "the *oldest* and *most* successful milk marketing organization in America". "It will be eight years old next September." The Milwaukee Co-operative Milk Producers was eight years old the 16th of last April, and it has functioned continuously since that date.

The net return to the members of these associations for their milk may be taken as an indication of the success of the respective organizations and also perhaps measures the value of the two types mentioned. The Twin City Association represents, according to Mr. Schilling, the superlative in "centrally controlled". The Milwaukee Association may be considered representative of the "bargaining organization" type.

The average net return per cwt. of 3.5% milk at the farm to the association member for the years 1921, 1922, and 1923 was: Twin City Association, $1.95; Milwaukee Association, $2.07. The average difference for the three years is 12 cts. per cwt. in favor of the "bargaining organization", located in the heaviest fluid milk producing section of the whole country and selling to a smaller consuming center than the Twin City Association. The 12c per cwt. difference means $1000 per day on the Twin City Association intake of twenty-five million pounds per month, or $30,000 per month.

Is our "bargaining organization" such a "fizzle"? Is the "centrally controlled" so "sucessful"? The ability to sell any commodity successfully is somewhat of an art in this present day, and especially is it true of milk in fluid form at any advance over manufactured value. It takes only a comparatively small area to supply a large consuming center like Minneapolis and St. Paul with its needs for fluid milk. The section adjoining the zone of needed fluid supply is constantly attempting to "break in" on the fluid market if the price paid is above manufactured value plus the extra cost of delivery. There is only one way to sell successfully, and that is to influence the buyer to buy and pay the price. This may be done in several ways.

One is to apply a padded brick with just the right amount of force to the correct spot above the neck, which will make the buyer amenable to the seller's reasoning. Another is to "corner" the supply so the buyer is compelled to buy from you if he wishes to buy at all. Another is to gain the buyer's good will, his confidence, and his co-operation to such an extent that he will buy his needed supply from you even at a higher price than it might be bought elsewhere.

The first method is not practiced as much by sellers today as it was formerly. The second method has been or is being followed by a considerable number today with rather indifferent success in the selling of fluid milk. Various existing milk producers' associations are obliged to extend their area of supply beyond their need, in their attempt to bring about "monopoly control" of the fluid milk, and "contracts" are still being signed with those outside the needed circle in order to keep them from "breaking" the market with their production.

The third method is followed by a few associations with the result that the buyers of milk do what you and I as individuals are doing constantly; that is, buying from those that have our confidence and good will, even though we pay more sometimes, or all the time, than we might some place else. But does someone say, "That is not true; we buy from the first store we come to"? No, we do not. We pass up Smith's to reach Brown's store, be it shoes, clothes, groceries, machinery, or what not that we need, because of the confidences we have in Brown—because of good will we have the desire to throw everything we can Brown's way. Is good will a business asset? Yes, it is. Can it be capitalized? Does it yield a financial return? You know it! Why do so many fluid milk association salesmen wish to "centrally control"? Are "the open price associations" so "harmless and toothless" when it comes to getting results? What are we organized for? Is it to "harm" someone, is it "control" and selfish power, or is it service to the industry and betterment of conditions?

Mr. Schilling says, "I would not be afraid of the milk dealers", which proves that he is afraid of them and always will be until he grows big enough to think of the milk industry as the unit. Dealers and producers are each a part of the same thing, and should co-operate for the benefit of the industry. They do so work together in some places that we know of, and would without doubt in other places if the good of the industry were uppermost in the minds of all. If the dealer and the producer will think of the good of the industry rather than their own individual good, they will grow together, think together, work together as one. There is, then, no question *between them* to argue over, and "fight" about. The disposition to "harm" either side will be absent.

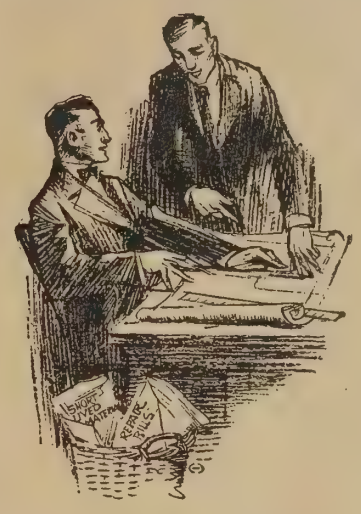
Mr. Schilling to bolster up his courage repeats aloud, "I would not be afraid". His fear engenders fear in the other, so both are afraid, and both do things to protect themselves from detrimental practices, instead of working together for the common good. The dangerous body is the "afraid" person; one never knows when his finger is going to jerk the trigger.

Confidence in each other creates stability. Good will brings the price. Co-operation gives protection to the industry in our individual markets. The three combined promote harmony and the team work that renders efficient service to the industry and betterment of conditions for all, producers and dealers alike.

Be patient—you probably get on somebody's nerves yourself.

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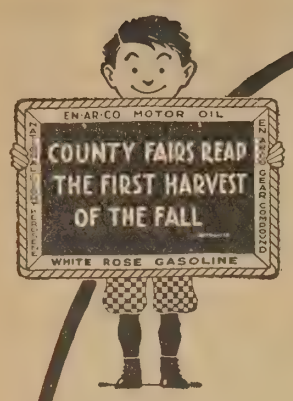
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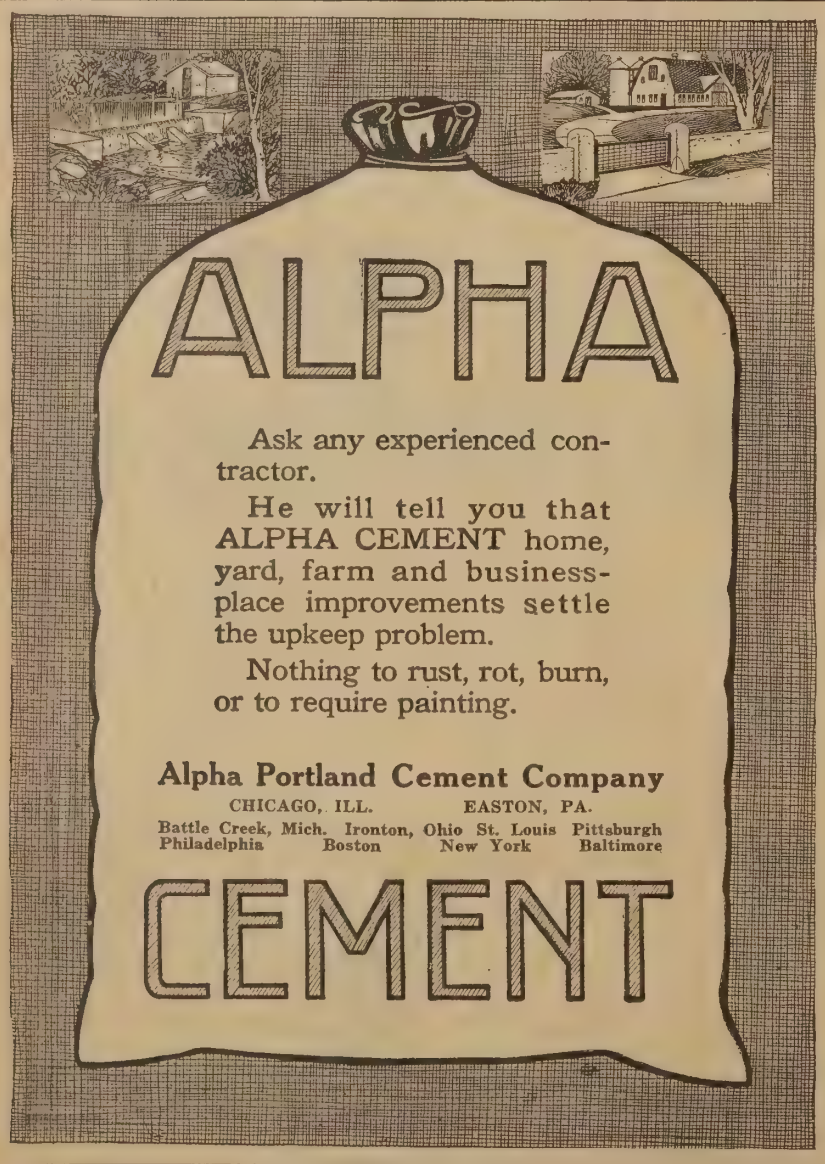
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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Ind.	Culver	Aug.	R. H.	80.6	J. A. Newman
"	La Grange	"	R. J.	61.1	R. Kelley
"	Dubois	"	G. J.	56.0	L. Wisehan
Ill.	Mc Lean	"	G. G.	62.4	Snow & Palmer
"	Kane 3	"	G. H.	72.2	St. Charles School
Va.	Southside	"	R. H.	49.6	O. Moyer
"	Prince Williams	"	G. H.	66.5	E. R. Conner
Minn.	So. Dakota	"	G. H.	61.7	J. F. Porter
Minn.	Kanabec 1	"	R. H.	61.6	A. G. Hageman
Wash.	Gray's Har.	"	G. J.	62.7	H. B. King
Calif.	San Bernardino	"	H.	79.0	S. C. Iest
Ohio	Summit 1	"	R. H.	65.9	E. H. Miller
"	Tri County	"	R. J.	80.3	W. A. Black
Kans.	Washington	"	R. H.	82.8	H. Hatesohl
"	Osage-Lyon Franklin	July	R. H.	63.8	A. Warner
Md.	Baltimore	Aug.	R. H.	65.1	W. R. Whittingham
Mich.	Livingston 2	"	R. H.	62.8	Armstrong Bros.
"	W. Allegan	"	G. H.	56.1	C. S. Wethven
"	Alp.-Leer	"	R. H.	65.7	N. Hobbs
"	E. Montcalm	"	G. H.	53.0	F. D. Powell
"	Musk.-Ravenna	"	G. H.	63.5	I. J. Bennett
"	Berrien Co.	"	R. H.	83.2	Em. Missionary College
"	Alp.-W. Kent	"	R. J.	91.2	W. Oliver
"	Rives-Jackson	"	G. H.	52.8	O. Ankney
"	St. Clair 2	"	G. H.	56.3	J. Volker
"	Macomb 2	July	G. J.	68.3	G. Bryce
Wis.	W. Salem-Bangor	Aug.	R. H.	65.2	J. D. McDonald
"	Mon.-Gil.-Modena	"	G. H.	63.3	Brown & Ayres
"	Denmark	"	G. H.	60.7	H. Hansen
"	Cr. Plains	"	R. H.	49.4	G. P. Nace
"	Allen.-Kohlsville	"	G. H.	58.6	G. Schmidt
"	West Bend	"	G. H.	62.0	C. Klunke
"	Wright.-Greenleaf	"		55.3	C. Van De-Walle
"	Gr. Bay- De Pere	"		55.7	Wis. Reformatory
"	Elroy	"	G. G.	54.7	G. Pruess
"	Clinton	"	R. H.	63.1	Duoss Bros.
"	Rockfield	"	R. H.	55.9	Mrs. C. Bast, Sr.
"	Oneida Co.	"	R. G.	78.5	Mrs. J. Miller
"	Colfax	"	R. H.	51.9	J. Farner
"	Foot.-Evansville	"	R. H.	67.2	W. Lewis
"	Iola	"	R. G.	48.3	J. G. Erickson
"	Ith.-L. Rock	"	G. H.	64.4	H. Schmitz
"	Stratford	"	G. G.	65.6	H. E. Kaetterhenry

Association Notes by Testers

Culver, Ind.: The 361 cows tested in August averaged 746 lbs. milk, 28.7 lbs. fat; profit, $12.62. J. D. Newman's herd qualified for the bronze medal given by the state dairy association when 10 cows in a herd produced in excess of 300 lbs. fat per year. Sweet clover is making excellent pasture crop where it is not allowed too strong a growth before starting to pasture it. Market milk sold for $2.30 a cwt. The cheese factory paid $1.30 a cwt. for milk. Milk retailed for 10—12c a quart, butter for 42c a lb.—W. R. Matthews.

LaGrange Co., Ind.: One member built a silo. The condensery paid $2.00 per cwt. for 4% milk, the creamery 32—45c per lb. for fat.—R. K. Dugdale.

Elkhart Co., Ind.: Last month, of the 309 cows tested, 13 produced over 60 lbs. fat, 22 over 50 lbs., 48 over 40 lbs. and 100 over one pound daily. The high herd of six registered Holsteins owned by Arthur Landis produced 46.43 lbs. fat. One new dairy building is being constructed. Market milk sold for $2.25—3.25 per cwt. The condensery paid $2.00 per cwt. for milk.—W. D. Campbell.

McLean Co. D. I., Ill.: The year's report shows that the grade Jersey herd of D. Hastings made a profit of $38.00 more per cow during the year just completed than it did three years ago when he started testing. Milk retailed for 11c per quart.—H. R. Fletcher.

Kane Co. No. 3, Ill.: Four members weigh milk daily. One member remodeled his barn. The high herd owned by J. H. Burr averaged 40.2 lbs. fat. The 512 cows tested averaged 23.4 lbs. fat. Flies and mosquitoes were bad last month, the main reason for the average production being 5 lbs. lower than in July. Market milk sold for $2.50 per cwt.—W. P. Schmit.

Southside, Va.: This has been an adverse season. Very little corn will ripen for grain and silage corn will make about half a crop. The prolonged drouth has made pasture practically worthless, yet the wells have furnished plenty of water. Two silos were built, one wooden and one hollow tile. Production is the lowest for ten months on account of the large number of dry cows and lack of feed. Market milk, grade B, sold for $3.93 per cwt. The cheese factory paid 42c per lb. for fat. The creamery at Danville paid 36c per lb. for fat. Milk retailed for 15c per quart, butter for 40c per lb.—C. A. Buck.

Prince Williams Co., Va.: The corn crop in this section is very poor. Some dairymen will have trouble getting sufficient corn to fill their silos. One member has put in a concrete floor to mix his feed on. One new dairy barn is being rebuilt. This association ended its year's testing the last of August with an annual meeting. The association was reorganized and an annual report made. Three bronze cups were given to its members, one for high herd, won by C. B. Fitzwater, which averaged 9,873 lbs. milk, 384.5 lbs. fat. This cup was donated by merchants of Nokesville and Manassas. The cup given for largest increase over last year's production in fat was won by C. N. Rhodes and was given by the National Bank of Manassas. Mr. Rhodes increased his herd average from 280 lbs. in 1923 to 335 lbs. in 1924. The cup given for highest fat producing cow was won by Clover Hill Farm and donated by Larkin & Dorrell, feed dealers of Manassas. This cow was a pure-bred Jersey and produced 613 lbs. fat. The association average for the year was 277.5 lbs. fat, 7,400 lbs. milk.—T. T. Curtis.

Gray's Harbor, Wash.: Due to dry weather and extremely high price of feed, production has fallen off. One dispersal sale of 90 head of cattle was held the last of the month.—F. R. Haynes.

Tri County, Ohio: Of the 213 cows tested last month, 16 cows produced over 1,000 lbs. milk and eight over 50 lbs. fat. The total average production was 565.5 lbs. milk, 27.2 lbs. fat. The Tri County and Ohio Valley Associations held their annual picnic August 15th. One milking machine was installed and one silo built. The corn crop is very late in this section and in danger of frost. Market milk sold for $2.53 per cwt. and retailed for 15 cents per quart.—E. A. Mizer.

Washington Co., Kans.: One member is remodeling his barn and erecting a silo. Members of this association are planning a stock show to be held at Linn, September 12—13, at which over $400 in prize money will be given away. The co-operative creamery paid 33c per lb. for fat, other stations 26—28c during August.—H. G. Lenhert.

Alpena—Leer, Mich.: There was a decrease in milk production last month. Only five members fed grain with pasture. The association average was 629 lbs. milk, 28.2 lbs. fat. Ten cows produced 50 lbs. fat, 29 over 40 lbs. Market milk sold for $2.50—3.00 per cwt. and retailed for 16c per quart.—C. Jennings.

East Montcalm, Mich.: Two separators were tested. Three members limed ground for alfalfa and sweet clover. About one-half of the members fed grain with pasture. All members but one use pure-bred bulls. Market milk sold for $2.00 per cwt.

The condensery paid $1.75 per cwt. for milk, the cheese factory $1.65. The creamery paid 38c per lb. for fat.—K. L. Orr.

Alpine—West Kent, Mich.: One separator was found to be testing at a loss. Several barns were newly whitewashed. The second crop of alfalfa is harvested in good shape. Three full herds are being shown at state fairs. An association tour on August 28th was attended by several members and the tester. Market milk sold for $2.60 per cwt. The condensery paid $1.75 for 4% milk direct ratio.—P. C. Wittenbach.

Rives-Jackson, Mich.: A new electric milker was installed on one farm. One barn was whitewashed and another is being rebuilt which was recently completely wrecked by a cyclone. Market milk sold for $2.35 per cwt. The condensery paid $1.70 for milk, the cheese factory $1.55. Milk retailed for 12c per quart.—J. Bird.

St. Clair No. 2, Mich.: Most cows are up in production, due to the quality of new seeding pasture. Two silos are under construction and one member has a new milk house and cow stable. All members sell whole milk. Market milk sold for $3.00 per cwt. at Detroit.—J. N. Ingland.

McComb No. 2, Mich.: Two herds were tested for tuberculosis and no reactors found. One member sold his entire herd of 14 grade Holsteins. Market milk sold for $3.00 per cwt. basic, $1.68 for surplus.—C. Blumer.

Mondovi — Gilmanton — Modena, Wis.: Sixty tons of oil meal have been purchased co-operatively and delivered in this association. August has been a good month for pasture in this section and cows are producing well and maintaining a good condition. Two concrete block silos are being built. Two more members had their herds tuberculin tested and no reactors found.—W. E. Acker.

Allenton—Kohlsville, Wis.: This association will send a carload of typy cows and bred heifers that fill all the requirements to the National Dairy Show Grade Cow Sale. The condensery paid $1.88 per cwt. for milk, the cheese factory $1.70. Milk retailed for 8c per quart.—V. M. Anderson.

Elroy, Wis.: Nineteen cows produced over 40 lbs. fat. Three herds averaged over 30 lbs. Four separators were found to be doing poor work.—A. G. Steffen.

Ithaca—Lone Rock, Wis.: One member has rented a limestone crusher and is grinding his own lime for next year's alfalfa. Some members are putting up soy bean hay of a good quality. Butterfat sold for 41¼c at the Richland Center condensery. The condensery skimmed for about a week until their stocks of condensed milk were lowered. Cheese sold for 12½—18c. Sweet cream brings from 40—42½c.—F. A. Dengler.

Footville—Evansville, Wis.: Two barns were whitewashed. A new barn equipment was installed by one member and an electric lighting plant by another. Market milk sold for $2.50 per cwt. The condensery paid $1.60 per cwt. for milk.—A. C. Lasse.

Denmark, Wis.: A few farmers have purchased most of their winter supply of feed. This association sent a judging team to the fair to participate in a judging contest held in this part of the state. They won second place. The condensery paid $1.70 per cwt. for milk. Milk retailed for 7—9c per quart.—M. H. Nelson.

"The secret of health," writes a doctor, "is the eating of Limburger cheese." But the trouble is to keep it a secret.

Ever Failing or Never Failing Pasture

(Continued from page 269)

ness. If a firm making grain binders would start forging each individual part by hand, it could not expect to compete with other companies using modern methods. Likewise, the dairy farmer who depends on bluegrass pasture and has to raise a large amount of hay, silage, and grain to supplement this pasture, and feed each cow by hand during much of the summer six months, has enormously increased his cost of production over that of the dairyman who simply opens the gate to his sweet clover pasture and lets the whole herd both harvest their own feed and feed themselves in the natural way all summer. And every dollar of that difference is added to the latter's profit.

The Revelation In Farm Accounts

In an abundant six months' pasture crop, the farmer has a remarkable lever for reducing the cost of production. Everywhere that farm accounts are kept—and that is now upon hundreds of farms—the fact is coming out that there is a wide range in cost of production, far wider than the whole farm profit, and that in any group the five or ten men having the lowest cost of production have made money even under unfavorable price and crop conditions, while the five or ten having the highest cost of production, not only have no profit whatever, but often come no where near making expenses, laborer's wages for the farmer, and reasonable interest on the investment. With sweet clover pasture the farmer can make successful attack upon his cost of production, and that is the reason for this series of articles.

Is Sequel to The Winter Feeding

In the twenty-acre dairy demonstration conducted by the writer at the University of Illinois for six years, and reported in Hoard's Dairyman nearly two years ago in the series of articles entitled "Most Milk Per Acre on Farm Feeds Alone", the incomparable place of alfalfa hay for winter feeding was brought out. Incomparable in yield per acre, incomparable as a balancing protein feed with corn silage, incomparable to sustain the health and vigor of the cow, incomparable as a roughage in producing milk, and incomparable in economy of cost.

This pasture series is really a sequel to that demonstration of winter feeding or barn feeding. It is on exactly the same idea of farm production of the cheapest and most suitable dairy feeds, only it goes a step further and takes advantage of the summer growing season to get a greater degree of economy in the same kind of feed. Sweet clover is not a rival of alfalfa but her summer sister, and will do exactly the same things as alfalfa—and more, for it takes the place of silage also. It is just as suitable to the cow's health and vigor; it is just as great a feed and stimulant for milk production as alfalfa. It is just as high a yielder; it is just as sure a grower. But in economy of feed cost and especially in the saving of labor, it has considerably the advantage of alfalfa, as we have seen.

So the sweet clover system is not something different, to supersede the corn and alfalfa system, which would not have been complete for the year around feeding without the former. The two are one, each affording the greatest economy and convenience during its particular season.

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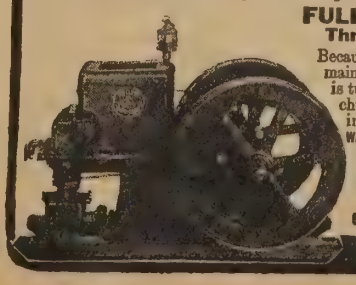
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Wayside Musings

THE FRIENDLY HEART

JOSEPH S. MORRIS, WISCONSIN

THE great friend of humanity—Jesus—gathered His friends around Him and talked to them. They would sit down by the seaside, or upon the mountain, or gather by the wayside. His companions would gather close to Him and the people would gather round. All would sit down on the ground and then He would begin to talk to them and teach them truths that would warm their hearts. His method has always had a strong appeal for me. As I grow older I have less and less heart to listen to oratory. There is too much of it that seems like using force to get us to think the way the speaker thinks. The truth is that we can never give intelligent assent to a proposition until we have had it made clear to us, had time to "digest" it, and have made it our very own.

I have often thought that it would be one of the finest things in the world to have in every community a warm and cozy and appealing room to which men and women, young people, aye even little children, might go to meet a teacher with a friendly heart. A friend to whom they could bring their troubles, and burdens, and difficulties, their secret heartaches and "talk them out" under the smile of a friendly heart. Such a friend as could comfort, council, advise, and send them on their way with a new found joy and a new grip upon life. After all, life is not easy for any, and many there be who lose their way because they have not had a friendly guide and counselor at the critical moment.

And this leads me to say that every home should have its sanctuary, its inner counsel chamber. Have time, and take it, to gather round in a family circle of friendliness—father, mother, children, young and old. Give these young lives a chance to speak openly. Invite frankness. Carefully, gently, in friendly, kindly fashion reprove, correct, instruct, approve, as frequently as possible, but never, never, seek to suppress. Our children are often wrong in their conclusions. It is a fine thing for a father to be able to say to that son who knows just about all there is to know: "I know how you feel, Mr. Man; you think you are absolutely right and you just can't see why the rest of us are unable to see the thing in your way. I know all about it, for I have lived a few years longer than you and have learned not to be so cocksure about things. It's all right to have strong convictions but spend a lot of time to determine that they are right and you'll get on quite well. Sometimes I may be wrong in opposing your views and when I find I am, I will tell you so. Trust me. I want to be your best friend." And it is a fine thing for the mother to keep the bond between herself and her daughter so strong and loving that the daughter will always and gladly go to her mother with her problems and difficulties. Remember, fathers and mothers, that the road over which your sons and daughters must travel is in some respects like the road over which you travelled as ignorant boys and girls. Your job is to help them to keep to the right but not to attempt to discourage them from venturing out.

Mothers and fathers of the farm homes are necessarily much closer to their children than is frequently the case in the city home. Much of the guidance they get they must get from you. City young people frequently get help from sources not available to the farm young people. Farm fathers and mothers are, by circumstances, kept in closer touch with their boys and girls. This is best for the young people and it is best for fathers and mothers for it makes them keep young with their children.

After we have had these chatty times together, when we have sat down and talked things over, and each has been permitted to say his humble say, wouldn't it be a fine thing to invite the great Master Friend to talk with us all? Is that possible? Yes! He said: "I will come to you."

No one would be willing to admit that their religion was good on one special day of the week and not on all the other days, and yet, isn't it true that often when we need it most we fail to use it?

I often think of the great host of spiritual leaders all round the world and wish for them all the Master's habit of the Friendly Heart.

SALE ANNOUNCEMENTS

Sept. 26—Guernseys. W. E. Wright, Akron, Ohio. Ohio Guernsey Breeders' Ass'n., Wooster, Ohio, Sale Managers.
Sept. 27—Holstein—Pierce—St. Croix Annual Sale, River Falls, Wis. Twin City Pedigree & Service Co., Mgrs.
Sept. 30 and Oct. 1—Sale of grade cows with cow testing association records at National Dairy Exposition at Milwaukee, Wis. C. L. Hill, Rosendale, Wis., Sales Manager for National Committee.
Oct. 2—Ayrshires. Dispersion of Aldebaran herd at Racine, Wis.
Oct. 3—Guernsey. Dispersal of herd of late H. L. Stout at Chicago Guernsey Farm, Hinsdale, Ill. Chas. L. Hill, Rosendale, Wis., Sales Mgr.
Oct. 4—Guernsey Consignment Sale, Sparta, Wis. W. H. Hanchett, Sparta, Wis., Sale Mgr.
Oct. 6—Holsteins. Wisconsin Dairy Show Sale at Waukesha, Wis. Wisconsin Holstein-Friesian Association, Managers.
Oct. 7—Holsteins. Hillsboro Holstein Ass'n., Hillsboro, Wis. Gus Knick, Sec'y.
Oct. 7—Guernseys. Norman E. Parsons, Danville, Indiana.
Oct. 8—Montgomery County Holstein Breeders' Ass'n. fall sale at Rockville Fair Grounds, Rockville, Md.
Oct. 8—Holsteins. Hickory Grove Farm's Second Annual Sale at Fairwater, Wis. W. J. Beilke.
Oct. 8-9—Mankato Holstein Farm Dispersal, 125 head. Mankato, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 8-9—Blue Earth Co. Guernsey Breeders' Assn. at Mankato, Minn. Dr. M. B. Wood, Sale Mgr.
Oct. 9—Second Annual Mississippi Valley Holstein Show and Sale at St. Louis, Mo.
Oct. 10—Holsteins. Second Annual Freeborn County Consignment Sale. E. G. Cort, Mgr.
Oct. 11—Holsteins. Clark Co. Holstein Sale at Neilsville, Wis. Jno. Wuethrick, Greenwood, Wis., Sale Mgr.
Oct. 11—Dr. H. P. Fischer Dispersal 75 Holsteins at Shakopee, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13—F. H. Bauer Dispersal 70 head Holsteins at Delano, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Oscar W. Hanson, 65 Holsteins at Withrow, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.
Oct. 15—Jerseys. Dispersal Sale J. R. Woods, Austin, Minn. B. C. Settles, Sale Mgr.
Oct. 15-16—Guernseys. Consignment and Dispersal Sale. Lowell Gable, Paoli, Pa.
Oct. 16—Holsteins. S. C. Heeg & Sons, Howell, Mich. F. J. Fishbeck, Sale Mgr.
Oct. 16-17—Johnson County Holstein Co. Dispersion Sale, Warrensburg, Mo. J. L. Ferguson, Secretary.
Oct. 17—Bradford County 2nd Annual Registered Jersey Consignment Sale at Troy, Pa.
Oct. 17-18—Holsteins. Dispersal of Daisy Hill Herd, Chagrin Falls, Ohio.
Oct. 21—Guernseys. Goldmead Farm's annual sale of Registered Guernseys at Versailles, O. Spiller & Worch, Owners.
Oct. 21—Holsteins. Ozaukee County Holstein Breeders' Sale, Cedarburg, Wis. Theodore F. Wittenberg, Sale Manager.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Oct. 23—Holsteins. Howell Sales Co., Howell, Mich. Guy Wakefield, Fowlerville, Mich., Sale Manager.
Oct. 24—Holsteins. Dispersion of the Spring Valley Stock Farm herd at Pittsford, Mich. Elisha Bailey & Son, Owners.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 30—Stephenson County, Illinois, Holstein-Friesian Ass'n. Sale.
Oct. 31—Holsteins. Enock Carlson, Roberts, Wis.
Nov. 1—Holsteins. Place & Kellogg Dispersal, Dorset, Ohio. Managed by Ohio Holstein-Friesian Association.
Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 4—Walworth Co. Holstein Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 5—Holsteins. Rock Co. Holstein Breeders' Semi-annual Sale at Janesville, Wis. John W. Jones, Sec., Milton, Wis.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.
Nov. 12—Holsteins. District Holstein Sale, Berea, Ohio. Under management Ohio Holstein-Friesian Association.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.

A Premium for Bacon Hogs

HOARD'S DAIRYMAN: — Conditions of the export market for American bacon have gradually but surely developed unfailing signs of declining prestige, with resulting lowering of values as compared to those obtained by our competitors, principally the Danes, and a careful analysis of the situation brings the realization that while our product leaves little to be desired as regards trim and cure, it falls far short in selection and quality.

Both these factors can only be controlled by our hog producers, the farmers, as no matter how carefully the meat is handled, it is a physical impossibility to stretch or otherwise mold faulty sides of Wiltshire Bacon; and likewise there is no known process of producing streaky bacon from fat, soft, and oily carcasses.

It is, and will remain, a problem for the farmers to solve by proper breeding and feeding methods, and the time is ripe to consider this question seriously if we do not wish to see our products forced out of the British market.

The firm of Cudahy Brothers Co., Wisconsin, who are large exporters of bacon for the English trade, have found it imperative to institute certain measures whereby they hope to awaken the interest of the farmers sufficient to insure a grading up policy toward the bacon type hogs and thus create a desirable source of supply for their export business.

It will be their policy to assist wherever possible in the formation of breeding clubs, arranging for local fair competition, helping out with educational demonstrations, and last but not least, they are prepared to pay premiums for hogs of recognized Yorkshire breeding.

The preference for Yorkshires is based on the actual performance of this breed in the bacon improvements of hogs in Denmark, Great Britain, and Canada, which countries have so far outstripped the U. S. A. in the manufacture of choice, lean Wiltshires sides that an actual difference of from three to five cents per pound exists between theirs and our American bacon. The secret of success in this particular trade lies in the ability to furnish an even, uniform, and well balanced selection of lean, fine grained, and streaky sides of bacon which can be depended upon to cut out to advantage and will contain a maximum of choice back and other high priced parts of the carcass.

Without a doubt the Yorkshires have proved themselves to approach this goal in general more than any other breed of hogs, and we may as well face the situation for what it is by acknowledging a preference for the breed that so far has proclaimed its superiority in the transmission of bacon qualities.

A select bacon hog weighing between 180 and 220 pounds should possess a side measuring 28 inches to 30 inches from edge of first rib to the ham knuckle bone, and not exceed 14 inches in width anywhere on the side from back to belly. The shoulder should be trim and neat, while the jowl must be light and firm, and the ham must be fleshy and tapering low on the hock with no superfluous fat on the outside. Belly must be trim and correspond in thickness to the back fat, which preferably should be evenly distributed from neck to ham and not exceed 1¾ inches.

Any hog fulfilling these conditions and besides showing a good quality of firm, white fat and good texture of lean meat and skin is acceptable as a premium bacon hog, but it will not be hard to understand that one breed of superior bacon lineage can be relied upon to produce a larger degree of uniformity in the products than two or more breeds with slight or more pronounced diversions due to variations in breed characteristics.

After all it is a special business this bacon hog must cater to, and it requires special procedures to establish a first rate article for which sufficient money can be realized in order to warrant the payment to producers of a premium.

The premiums will vary according to the infusion of bacon blood so that hogs of first cross sired by Yorkshire boars will be paid with 25 cents per 100 pounds live weight extra, while second crosses or three-fourths bred Yorks can demand 50 cents per 100 pounds premium, and full blood Yorkshires will receive 75 cents over and above market price of similar weight hogs of lard type.

There is no illusion on the part of the company that a first or even second cross of Yorkshires on the ordinary sow stock in the state will perfectly remodel the progeny, but it is recognized by them that the producers are somewhat handicapped for breeding stock in making the change, and it will therefore prove a helpful feature to farmers that this arrangement can be carried on for at least three years after which time the premium will only be paid on select hogs regardless of immediate ancestry. In our neighboring country, Canada, there never was any discrimination shown farmers in this respect. They have to produce a top-notch bacon hog in the first place, before any cash consideration comes their way, and in many cases it has served to discourage rather than promote the bacon type that so scant a percentage of hogs graded "selects" or markets.

It is to be hoped that dairy farmers will embrace this opportunity to get a fresh start in the hog raising, thereby finding both a ready market for their surplus skimmilk and a profitable purveyor of their two safest and most reliable crops, barley and alfalfa.

Wisconsin. F. B. HANSEN.

Concentrate your energy, thought, and capital exclusively on the business in which you are engaged.

Tropical Competition and the Dairyman

HOARD'S DAIRYMAN:—Dairymen generally may not be aware of the increasing competition being given them by cocoanut and other oils from tropical regions. Of course, the one way in which this competition is felt is through the manufacture of oleomargarine into which these tropical oils enter. There are two ways, then, for the tropical oil competition to increase. One is through the increased total production of oleomargarine and the other is through the increased percentage of these oils used as raw materials in oleo. To judge the competition from the increase or decrease in the total production of oleo does not tell the whole story and that is what we wish to point out in this discussion.

It is quite well known that the production of oleo increased considerably during the war period. In fact, from 1916 to 1920 the increase was from 150 to almost 400 million pounds. Since 1920, however, there has been a decided decrease amounting to almost 200 million pounds in two years' time. Apparently this has been a source of satisfaction to dairymen, and rightly so, but it is important to see the whole situation. The decrease in total production does not represent a corresponding decrease in tropical competition. This is very well shown by a study of the raw materials that went into oleo since 1916. The most significant point is the extent to which coconut oil is replacing the other raw materials in the manufacture of oleo. In seven years the amount of coconut oil in oleomargarine increased from a fraction of one per cent to about twenty-five per cent. During the same period the amount of cottonseed and peanut oils used dropped eight per cent and the amount of animal fats and oils like butterfat, oleo oil, and neutral lard decreased over 12 per cent.

Tropical oil competition is not decreasing, therefore, as the decrease in total production of oleo would indicate. In fact, it is increasing since coconut oil has become one of the very important factors in the difference in cost of butter and oleo.

What does the future hold in store for dairymen? One can safely make only a limited number of observations. First, the butter substitute industry and the whole coconut oil industry of the tropics were unduly stimulated during the war period and they have apparently suffered more from the depressed conditions since the war than the dairy farmers themselves. Second, while the high prices prevailing during and since the war along with the depression tended to increase the consumption of substitute butters, that situation has been changed somewhat now more to the advantage of the buttermaker. This is probably true that it will be many years before the oleo makers can again give the buttermakers the competition they gave during the recent war and after-war period.

One of the very important points revealed by a study of butter substitute consumption is this: The rate of consumption is determined by the price of butter more than by its own price. In other words, oleo is consumed because butter is high priced, not because of a preference for the substitute. This leads to another observation: The consumption of butter decreases when the price is high regardless of whether or not there is a cheaper substitute available on the market. This is very well demonstrated by a study of butter consumption since the Civil War. During the Civil War butter sold for 50 cents a pound wholesale in New York and the consumption fell to less than 15 lbs. per capita. From 1870 to 1900 the price fell gradually to 20 cents a pound and the consumption increased to almost 20 lbs. per person. This was the highest rate of consumption of butter reached in the United States since the Civil War. From 1900 to 1920 the price increased gradually at first and then sharply after 1915. Consumption, on the other hand, fell back to less than 14 lbs. The point is this: Butter consumption decreased during the decade from 1910 to 1920 not primarily because of the presence of a cheap substitute but because the price of butter had been relatively high. This is an assumption based largely upon the fact that the same thing happened during the Civil War without a butter substitute on the market.

In view of the foregoing situation this one suggestion is made: In price lies the most effective weapon the dairymen have against tropical competition. The majority of American people prefer butter and are willing to pay a premium for it but there is a great mass of people of limited means, including a great number of dairymen, who feel that this premium often gets too great and they buy substitutes instead. A careful study ought to be made to determine what premium different classes of people will pay for butter over oleo. So long as a pound of oleo will spread as many pieces of bread as a pound of butter and so long as the difference in price is unreasonable in the popular mind, educational work based upon the health qualities of the respective products will not prove permanently helpful. The economic argument for consuming oleo is apparently more convincing to many people than the health argument for consuming butter.

There is certainly no happy solution to tropical oil competition. It is simply a challenging economic situation which will likely swing forward and backward as time goes on, first to the advantage of the dairyman and then to the advantage of the oleo maker. From the experience of the past this can safely be said: The cheapness of substitutes will never drive butter from the American dining table, neither will the health qualities of butter and the desire for the genuine product ever drive oleo from the market. However, the presence of the substitute will likely serve to limit at times the price of butter on its upward trend and this is its most serious aspect.

Wisconsin. GEORGE F. JOHNSON.

Business Manager for New York Guernsey Breeders

B. J. H. Rikert, a graduate of the College of Agriculture at Syracuse University, has been appointed business manager for the New York State Guernsey Breeders' Association, Inc., with office at 302 Fayette Park Building, Syracuse, N. Y.

The New York State Guernsey Breeders' Association, Inc., was organized in May, 1922. The Association has a large membership of Guernsey breeders; 28 county associations affiliated with it and a number of junior calf club members. It has done much to promote the breeding and improvement of high grade and pure-bred Guernseys; it has given considerable aid to its members in buying and selling first class animals and has developed several markets to take Guernsey products at a premium.

Mr. Rikert was born and reared on a general dairy farm in Dutchess County. In college he specialized in animal husbandry. During his senior year he was student instructor in animal husbandry and also had charge of two classes of short course students. In the fall of 1920, he won both silver prizes in judging horses and cows at the State Fair. The same year he was a member of the college stock judging team which judged at the National Stock Show at Chicago. Mr. Rikert brings to the Association an experience of two years' agricultural organization work in this state and Minnesota.—L. A. TOAN, President.

Bessie, aged four years, who was down town with her mother, caught sight of a baldheaded man.

"Oh, mother," she exclaimed in high, shrill tones, "just see that man! He hasn't a hair on his head. Isn't it sad?"

"Hush!" replied her mother. "He will hear you."

"Oh," replied Bessie in subdued tones, "doesn't he know it?"—Everybody's Magazine.

GUERNSEYS

150 GUERNSEYS

O. G. CLARK & CO

Will Sell at

West Salem, Wis.

Thursday, Oct. 16th

150 high grade, springing Guernseys, cows and heifers. All the offering are young, big and sound, a few fresh, balance soon due. Everything Tuberculin tested. West Salem is easy to reach and easy to ship from. Attend this sale.

O. G. CLARK, Mgr.
West Salem Wisconsin

GUERNSEY CONSIGNMENT SALE!

Sparta, Wis.

SATURDAY
OCTOBER 4th
AT 1 O'CLOCK P. M.

60 Grade Cows
30 Grade Heifers
10 Purebred Young Bulls

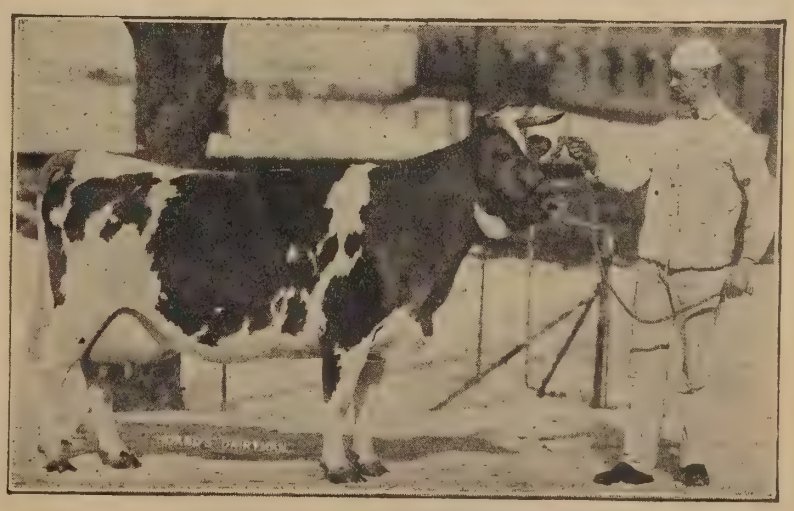
--- Under Direction of ---
Monroe County Guernsey Breeders' Ass'n

All animals T. B. tested by Federally licensed Veterinarian. This is Monroe county's third consignment sale and special pains have been taken in selecting an unusually fine offering.

F. E. BLAKE, Auctioneer

W. H. HANCHETT, Sparta, Wis.
SALE MANAGER

Daughter of Anton's King Confidence



TEMPERANCE J. OF PROSPECT 13036 A. R.
Born Aug. 22, 1918
Sire—Anton's King Confidence 43517 A. R.
Dam—Heartsome of Prospect 26602 A. R.

A cow we recently sold to the University of Wisconsin. She was bred and raised on the Hoard's Dairyman Farm. At the annual Little International she easily won the Guernsey female Grand Championship. The man holding her is Gordon Vial, who had charge of her at the University Show. How about your next herd sire?

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

Radio Time
-- Is Here Now !





There is no need to "sell" Hoard's Dairyman readers on the idea of Radio. Everyone knows that radio is now practical for every home. Every home wants a radio receiving set.

But wanting one and getting one are sometimes two very different things. It isn't always easy to see where that much extra money is coming from.

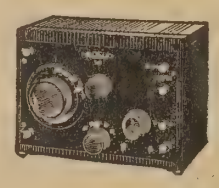
Here's a chance to get a receiving set without spending a cent of your money. It's a chance open to every reader of Hoard's Dairyman who is willing to recommend the "Dairy Gospel" to a few of his neighbors and friends.

Just send the coupon at the bottom of this ad, and we'll tell you the whole story. And do it now. Don't wait. The sooner you get started, the sooner you will be ready to tune in. You'll be surprised to find how little work and time you will have to invest to get a good receiving set—complete, ready to set up.

Take Your Choice --- and send the Coupon NOW!

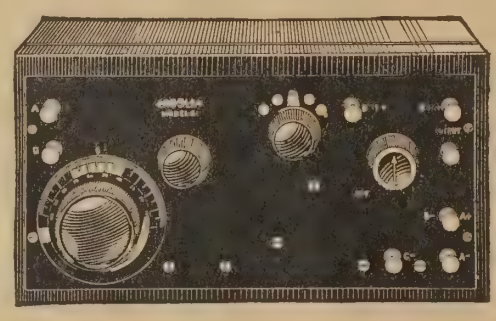
The first fellow who starts in your neighborhood will be the one who will get his subscriptions easiest and quickest.

Crosley Type 50



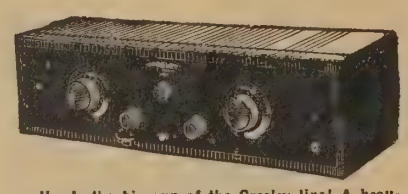
This is a one tube regenerative set—a little peach. It will bring in stations up to 1,000 miles or more good and clear on head phones. Very simple to erect; inexpensive to run, and easy to tune. The writer of this ad has one in his own home, and if he couldn't get another, he wouldn't sell it for $100.00, and it didn't cost anywhere near that!

The Crosley 51



This is a two tube set, which gives a little greater volume on long distance, and will operate a loud speaker on stations up to 500 miles away. The manufacturers claim this to be the most popular radio set in the world.

The Crosley 3R3



Here's the big gun of the Crosley line! A beautiful three tube set; so efficiently hooked up that it gives five tube results from three tubes. It possesses wonderful selectivity; brings in stations from great distances; is very simple to tune, and easy to "log"—which means that once you find a station with the dials set in a certain position, you can always get the same station when you set the dials there. No one needs or could ask for a better set than the 3 R 3.

C-O-U-P-O-N

HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin.

I am going to do my best to earn one of your Crosley, Type..... Radio Receiving Sets. Let me know just how many subscriptions I will have to get and send me whatever you think I need to get started.

Name .....

P. O. .....

R. F. D. No. ..... State .....

POULTRY On The DAIRY FARM



J. B. HAYES

Finishing Pullets

This season of the year is entirely too late for one to think of growing out a bunch of pullets for winter producers. That part of the scheme should have been considered at hatching time last spring. A late hatched chick will never develop as rapidly, economically, or reach maturity in as short a time as earlier hatches. Most of the late stock will always appear rather immature, never attain sufficient size, and will not start laying early enough to hit the market of high egg prices. With late hatched birds a proper feeding method will help but cannot work the miracle of making something worth while out of nothing.

In handling test cows a feeder is always careful to have the animals in prime condition before the real work starts. There must be a reserve established before the work starts, to assure a maximum production for a continued period.

Pullets that are precocious develop rapidly but never attain sufficient size and are apt to be a flash in the pan. One of the flock owners had an example one year that was typical of this condition. After a growth of about four and a half months, production started. This pullet was a little, undersized individual that was lacking in reserve. Her production during the year was shown by the trap nest to be a heavy lay of about twenty eggs that utilized the reserve and was followed by a resting period of almost a month. She finally finished the year with a rather low record. There was not enough chicken there to stand the grind.

It may be fine to own occasional pullets that start laying at an early age but there must be proportionate development. Early maturity is desired but not necessarily early production.

In order to properly produce, a pullet should be in prime condition. The fear of having hens too fat has been drilled into all of us so long that we are beginning to feel about the same in regard to pullets. There are more pullets that are poor producers because of improper condition than there are those that are too fat in the fall. We do not expect them to become flabby fat but prime condition is required. Sometimes it seems that one could be safe in stating that a pullet going into winter quarters cannot be too fat.

Mash feeding is a wonderful asset in the right place but can often be overdone. A properly compiled mash will mature pullets too quickly when fed in unlimited quantities. A proper proportion between mash and grain feeding is necessary for best results. One needs to feed rather heavy on grain and then allow as much mash in addition as they will consume. Under some conditions the hopper feeding of grain as well as mash is advisable.

A regular scratch mixture that is rather heavy in corn will be found satisfactory. Even a straight ration of corn may be fed when the mash is properly balanced. Grain will put on flesh and that is the ideal that one should strive to attain.

Young stock should be moved to the laying house before they are fully matured and production has started. Quietly moving them at this time will not cause any damage while a later change will seriously hamper production. About the middle of September to the first of October should be set as to the time to make the change. After housing for about a week they will become accustomed to the new quarters and will return each night if released. In cases where development is a little bit slow, a more rapid maturity will be experienced when the stock is housed. Under no conditions should the flock be released again after the first break in the weather. They will feel a great deal more comfortable if confined.

All the windows should be removed from the house during the summer and kept out until cold weather. Every time that the young stock begins to roost on the window sill along the nests next to the windows or in other adjacent places, we feel that it is just an expression of their wayward disposition. When one considers, though, that these birds have been roosting in trees or other places where fresh air was abundant it is partially explained.

Colds are caused each year from lack of ventilation. Allowing the windows to remain open overcome this objection and prevents part of the trouble. A stuffy, poorly ventilated building will cause the flock to feel the same way. As the season progresses one can adjust the ventilation to meet the conditions.

In cases where development seems to be a little bit slow, one can hasten growth by the use of a moist mash. Using a dry mash of equal parts ground corn, ground oats, wheat middlings, wheat bran, and meat scrap or digester tankage moistened with milk will give the extra feed needed to start production. Some pullets are just like a train on a steep grade that needs just a little more push to get over the top after which they can sail along on their own power. Moist mash feeding will supply the extra push.

This material should be given to them at noon during their regular resting period. Feeding at this time will not interfere with the consumption of other feeds but does give the finish. In all cases the mixture should be crumbly but never sloppy and given only in an amount that will be consumed in about fifteen minutes. Any that remains should be removed and the feeding troughs scraped clean.

Iowa Station Report, 1922, gives comparison of semi-solid and dried buttermilk with fresh buttermilk for fattening poultry which shows that the fresh buttermilk is superior to either of the dried products. Preliminary results of a test of different feeds for egg production indicate that dried and fresh buttermilk are superior to tankage and beef scrap.

If you want to trip someone on a catch question just ask what a baby chick would say if the mother hen laid an orange. Of course, your friend won't be able to answer, so you wisely reply, "Oh, see the orange marmalade."

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Johne's Disease of Cattle

When a cow or a younger animal of the herd persistently scours yet retains appetite but becomes more and more emaciated and finally dies, Johne's disease, also called "chronic bacterial dysentery", may be suspected as the cause. This insidious disease has been recognized for some years and was first discovered by Bang, in Denmark, but took its name from Johne, another noted scientist, who isolated the casual germ. Cases of it have been found here and there in some eight states, but the disease has never become prevalent like tuberculosis to which it is somewhat similar in both its symptoms and the character of its specific germ. It is more prevalent, however, than is generally suspected and often has not been correctly diagnosed, being taken for the last stages of tuberculosis when the affected animal became almost "skin and bone" in condition. Fortunately it is now possible to test cattle for the disease in much the same way that tuberculosis is detected. The biologic used is called "Johnin". This diagnostic fluid was first prepared by Twort and Ingran, in England, and later has been produced at the Wisconsin Agricultural Experiment Station and successfully used for the detection of the disease. Notable work in that connection has been done by Professor E. G. Hastings, bacteriologist, and Dr. B. A. Beach, of the veterinary department of that institution, regarding which full particulars are given in Bulletin 343.

At the time that bulletin was published the Johnin test was in its experimental stage, but over 1000 cattle had been tested and the disease was found present on post-mortem examination in 29 out of the 30 reacting animals. The test is of great importance, as presence of the disease can thereby be detected while it is yet in a dormant or incipient stage, as well as corroborating the diagnosis of suspected Johne's disease in a wasting, emaciated animal. Veterinarians should apply the test when suspicious cases are found and meanwhile should study the bulletin mentioned as should owners of valuable cattle. By use of the test, elimination of reactors and disinfection of infected premises it should be possible, in time, to stop the spread of the disease.

The Wisconsin bulletin states that the most striking symptom of Johne's disease is the gradual loss of flesh. This continues until the affected animal becomes a mere skeleton. The eyes remain bright but become sunken. Milk yield shrinks and eventually stops. Appetite is not impaired, nor is fever ever present, as a rule. Tuberculosis naturally is suspected when these symptoms are seen but the animal fails to react to the tuberculin test. When that occurs the likelihood of Johne's disease should be understood and Johnin used to determine if it is present. Meanwhile the suspected animal should be isolated and the pens and soiled bedding disposed of in such a manner that infection will not spread from it to susceptible animals. Sheep as well as cattle may contract the disease, but they are much less commonly affected. Feed contaminated by the bowel discharges is probably the chief source of infection. A peculiar character of the disease is that it may lie dormant for years, then suddenly appear when some debilitating cause has lessened the resistant powers of the animal; also that the aggravated symptoms temporarily may lessen when the feeding is generous and all conditions are favorable to the animal, but they invariably return and eventually prove fatal. In the later stages of the disease the scouring or diarrhea may be constant, but in some instances it is entirely absent. Identity of the disease, apart from the test with Johnin, is largely dependent upon the post-mortem appearances and laboratory examination of tissues from the intestines and messenteric lymphatic glands. One of the most characteristic post-mortem lesions is thickening and an intensely wrinkled condition of the mucous membrane lining the small intestine, notably the last third, which cannot be smoothed out by stretching. The appearance and odor of the fecal discharges is also diagnostic, in some degree, of Johne's disease as compared with other forms of dysentery.

Abnormal Breathing

We have a fine Jersey heifer that will be fresh in November that has some kind of a thing in her nose. When it is hot weather she can't hardly breathe through her nose, but in cooler weather you can't hardly tell there is anything the matter with her. When she gets too bad she opens her mouth and then you can tell it is just in her nose for she breathes easy then.

Kensington, Kans. R. G.

In such a case it always is wise to have the tuberculin test applied by a veterinarian, as tuberculosis of the glands of the throat often causes loud or labored breathing. That disease is incurable and contagious and makes the milk dangerous for use by people or animals. If there is a tumor (polypus) in a nostril it may be removed if just inside of the outer opening, but if far back, it would be best to fit the cow for the butcher after her milk flow becomes unprofitable.

Drying off a Cow

Sometime ago I bought a Jersey cow. The man tells me she won't dry up before calving time. Is there any special way to milk her toward the last? I would not like to spoil her udder.

T. A. L.

The cow certainly should be dried off for six weeks before calving and the process should be started eight weeks before that time. As the cow is no doubt a persistent milker she should be kept off grass and put on a light, dry ration to check the secretion of milk, yet she should not be allowed to become constipated. It may be necessary to feed bran and oil meal to accomplish that. The drying off process consists of gradually lengthening the intervals between milkings. Milk once a day, then each other day and finally stop milking when the secretion has about stopped. If any sign of garget is seen frequent milking has to be resumed until it subsides, but camphorated salves or lotions should not be applied.

Obstructed Teat

I have a valuable young Holstein heifer that has an obstruction in one of her teats. We have to use a milk tube every time we milk her. Can anything be done to remove the obstruction without losing the quarter?

Gresham, Neb. C. E. B.

If a growth obstructs the flow of milk and is located just inside the orifice of the teat, a veterinarian can remove it by means of a special instrument. If the growth is high up in the teat it would be best to let a calf nurse or to dry off the secretion of milk in that quarter. If a stricture at the tip of the teat is the cause of hard milking it may be remedied by slitting down through it in four different directions with a teat bistoury. A veterinarian should be employed to operate. Continued use of a milking tube will be likely to cause ruinous garget.

Use of Young Bull

We have a well bred young Guernsey bull, sixteen months of age and well grown. Since this bull was fourteen months old he has served twelve cows. We did not intend to use him any more until he is two years old, but have a neighbor that is very anxious to use him on six cows. He wishes to breed them as fast as they come in heat, and we would like your advice on this subject. Do you think we would endanger the bull's future breeding powers by using him much more?

Mechanicsville, N. Y. D. G. R.

It would be unwise to let the young bull serve the neighbors' cows. A 12-month-old bull is better not to do service but if he must be used one or two cows is enough. Allow a bull of 12 to 18 months to serve five to ten cows; 18 months to two years, 10 to 15; two to 3 years, 15 to 25; 3 to 4 years, 30 to 50; and from 4 years to 5 years and up, 30 to 50 cows. If well distributed throughout the year the number of services may be somewhat increased over the conservative figures given here. Do not let the bull run with the cows. One service at a period of heat is sufficient.

Douching Solution

What solution is it that is used to wash out cows that fail to breed sometimes? What strength solution and how applied?

Haw River, N. C. W. K. S.

A great many different solutions are used for the purpose mentioned. For flushing of the vagina it is common to use a solution of two tablespoonfuls of salt or bicarbonate of soda per gallon of blood warm (100° F.) boiled water, introduced by means of a fountain syringe, or a nozzle, rubber tube, and funnel or large, clean pail having a spout fitted near the bottom to which the tube is attached. Veterinarians also use a ¼ to ½ per cent solution of Lugol's solution, or 1 per cent solution of hypochlorite of soda.

Lump Jaw

Kindly advise me if actinomycosis (lump jaw) in cattle can be cured. If so, what is the treatment?

Sparta, Mich. G. S. F.

Actinomycosis or "lump jaw" is curable when soft tissues are involved but treatment rarely pays when the bones are badly affected. Treatment consists in cutting out or sloughing out the diseased tissues. Iodide of potash is also given internally until symptoms of iodine poisoning (iodism) appear. It is then discontinued for some time but repeated later, if seen to be necessary. Two drams of the drug given daily in water have the desired effect. The treatment, however, causes weakness, emaciation, and shrink in milk flow, when iodism is caused, and may also induce abortion. A bulletin on the subject may be obtained from the U. S. Department of Agriculture, Washington, D. C., giving full particulars.

Tumors in Udder

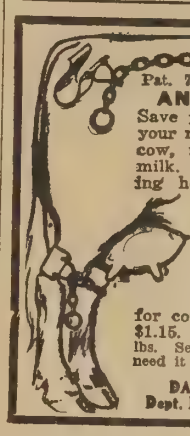
I have a Holstein heifer that freshened five weeks ago. Her bag was caked terribly but the cake has all gone now except in one quarter of the udder. There are two hard knots about the size of a goose egg in the udder and I am writing to ask if you can tell me what I can do to take these knots down.

Walnut Hill, Ill. E. C.

It is common for scar or tumor tissue to replace some milk-secreting gland tissue when the udder has been attacked by garget. Hard, insensitive tumors may also be caused by tuberculosis of the udder. To determine if the heifer is free from the latter disease, it would be advisable to have the tuberculin test applied by a qualified veterinarian, if that has not been done. Meanwhile, massage the affected parts two or three times daily and twice a week rub in some iodine ointment.

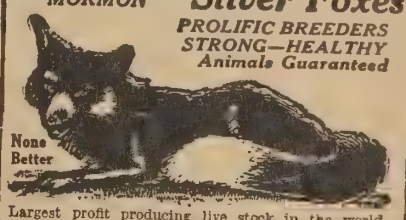


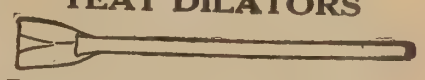
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HIGHEST QUALITY REGISTERED
SILVER BLACK FOXES
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Fort Atkinson Wisconsin

30,000 Ayrshires Tested In Scotland Last Year—

Averaged 7500 lbs. of Milk

These records are made chiefly on pasturage and hay on typical Scottish dairy farms and comprise herd tests in which every cow in milk is included.

In the United States Cow Testing Association records give the facts needed by a dairy farmer who desires to know the profitableness of every cow he milks. Such herd records show the high average production of the breed on American dairy farms.

EDWIN MARQUART'S HERD AT KNOWLES, WISCONSIN, for two years has led the Northeast Dodge County Association with an average herd production of 9,213 lbs. milk, 415.7 lbs. fat.

IN ELEVEN MONTHS THE HERD OF J. A. ERICKSON in the Moody County Association at Brookings, South Dakota, has produced an average of 7,803.6 lbs. milk, 322.2 lbs. fat, more than any other herd in the Association in twelve months.

IN THE MIDDLE BUCKS COUNTY ASSOCIATION, the grade Ayrshire herd of W. S. Bishop, Doylestown, Pennsylvania, led in production last year with an average of 8,890 lbs. milk, 388.4 lbs. fat.

THESE ARE HERD RECORDS—every cow in milk being tested. It is the herd average which tells the real story.



You can own an Ayrshire herd, which, under your own farm conditions, will average high yields of 4% milk year after year. Breeders near you will supply foundation stock at very reasonable prices. For their names and for further facts on Ayrshires, write

The Ayrshire Breeders' Association
10 Center Street, Brandon, Vermont



NETHER CRAIG FOOTLINE
SENIOR HERD SIRE

Sire:—HOBSLAND'S LUCKY BOY, the leading breeding bull of Scotland and America, whose dam, Hobsland's Surprise Packet, was one of the best daughters of our great foundation sire, Hobsland Innellan.

Dam:—NETHER CRAIG MISSIE, a great breeding cow whose produce stood first at 1923 National Dairy Show. She has made about 55,000 lbs. of milk in the last five years.

We are showing four bulls ready for service at the 1924 National Dairy Show, out of good Advanced Registry cows. These bulls are priced to sell.

BARCLAY FARMS

JOHN COCHRANE, Mgr. **Rosemont, Penn.**

REMINDER---

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THURSDAY —
Oct. 2, 1924 10:00 A. M.
77 - Registered Ayrshires - 77

ONE-HALF WISCONSIN AYRSHIRE CLASS LEADERS IN THIS SALE

The Ayrshire cow more nearly combines the qualities of correct dairy form, hardiness and high average production than any other dairy breed.

AYRSHIRE HIGH LIGHTS

1. Long life—Productive age range 3 to 20 years.
2. Very hardy—largely immune to ordinary cattle diseases.
3. High *average* production—both milk and butterfat.
4. Adaptable to a wide range of soil and feed conditions.
5. The best shaped udder of any breed.
6. Good quality of beef when put on block.
7. Good traits predominate. Grade up your herd with Ayrshires.

ALDEBARAN FARMS **RACINE WISCONSIN**

DISPOSAL SALE

Registered Ayrshire herd which includes

22 MATURED COWS IN MILK, 19 HEIFERS IN FULL MILK, 6 FRESH HEIFERS, 6 YEARLING HEIFERS, 14 HEIFER CALVES.

(All above tuberculin tested.)

This herd is at Park Falls, Wisconsin and is ready for inspection at any time.

W. B. JOHNSTON **Park Falls, Wisconsin**



Edgerstoune's Luxury Bond
Born Aug. 10, 1923

Edgerstoune's Luxury Bond

A Promising Young Bull For Sale

His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.

EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale., Sires backed by world's record production and most popular breeding. Herd federally tested.

CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Electric Pasteurization

There have been many and varied announcements of the pasteurization of milk with some form of electricity and the use of "violet rays". When sifted down none of these appear to have proven practical or satisfactory. We are, therefore, inclined to be skeptical about the practicability of the plan described in the following item from the U. S. Bureau of Commerce:

"Interest in Germany attaches to a so-called Scheidt process, named after the inventor, for the sterilization of milk by a system of producing ultra-violet rays in vacuum pipes made of thoroughly transparent quartz, employing at the same time the so-called Moore light. The milk is run in a thin layer along pipes so that it will be completely subjected to the rays. In order to be certain that the milk is uniformly distributed over the pipes, funnel apparatus is placed at certain locations where the milk is collected for re-distribution on the pipes.

"The process does not involve production of heat waves nor, it is alleged, does it alter the chemical composition of the essential ingredients of the milk. When the apparatus has been used for milk sterilization, it can be washed automatically with water. The water is in turn sterilized, and if it emerges from the apparatus in a clear state, it can be further used for spraying out milk cans or other containers."

Thunderstorms and Sour Milk

Do you believe that thunderstorms cause milk to sour? It is generally believed they do. The souring of the milk is generally attributed to the electrical action between clouds, which is responsible for the lightning associated with thunder storms.

There is no relationship between these electrical discharges and the souring of milk. Some authorities report that electricity will destroy bacteria or retard their growth. In such cases electrical action would cause milk to keep longer.

Souring of milk is caused by a growth of bacteria which feed upon the milk sugar and convert it into an acid when the milk is held at a warm temperature. The acid sours the milk.

It is believed that the temperature conditions immediately preceding a thunderstorm cause the souring of milk. Thunderstorms usually follow a period of hot, humid weather. The heat and humidity cause the refrigerators, cellars, and cooling tanks to warm up. The milk is also warmed up, stimulating a rapid growth of bacteria, which really causes the milk to sour.—E. H. PARFITT, Purdue Experiment Station.

SWINE

HAMPSHIRES

Spring Pigs $20 each —$37.50 per pair. From Famous LOOK-OUT-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

DUROCS PUREBRED SPRING PIGS—Healthy, vigorous stock, both sexes. Shipped on approval. WALTER SCHEDLER, Coxsackie, N. Y.

AYRSHIRES

ALLEGANY-STEUBEN AYRSHIRE CLUB

CONSIGNMENT SALE!

Hornell, N. Y., Oct. 29

OVER FIFTY AYRSHIRES. Extra good aged cows, A. R. cows, young cows and heifers bred to freshen near sale time and three young bulls. County wide T. B. eradication. All herds accredited. Best in breeding, health and production.

Send for catalogue.

IRVING M. JONES, Alfred, N. Y.

WALLIS FARMS AYRSHIRES

Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance. See us at The National.

H. M. WALLIS, *Owner* Racine, Wis.

Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.

B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

FOR SALE

AYRSHIRE BULL CALF three months old, extra good individual. Sired by son Penshurst Rising Star.

LEASKDALE FARM, WHEATON, ILL.

HOLSTEINS

Dutchland Creamelle Denver Prince

The sensational sire of show champions and high producers. Must sell his son from 22.9-lb. 4-year-old daughter of Sir Calomo Wayne. A show bull and three-fourths brother to champion female 1923 National. Born September, 1922.

Write for particulars.

CARL H. POPPE, Washington, Illinois.

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,

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Meredith Jersey Farm

SHOW HERD WINS AGAIN

We have a small group of animals on the show circuit again this year and they have been doing fine. Up to date we have shown at seven Fairs in the Middle West and have won

6 GRAND CHAMPIONSHIPS—12 CHAMPIONSHIPS—54 FIRSTS

Our young stuff by our herd sire, FINANCIAL BEAUTY'S KING, 132904, Silver Medal Sire, has done exceptionally well.

We have some bull calves by this sire—also some by FASHIONABLE FERN LAD, 163968, twice Grand Champion at the National Dairy Show and winner of numerous other championships—that we are offering for sale at very reasonable prices. Some of them are out of dams with good Register of Merit records. These calves will win for you, not only in the show ring, but by increasing the production of your herd.

Write us for a descriptive list with prices.

Meredith Jersey Farm

Des Moines, Iowa

Name Your Own Price!

We Have a

JERSEY BULL CALF for You

BE REASONABLE!

INDERKILL FARM, Staatsburg, N. Y.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves. R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Colden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.

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and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.

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REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.

Federal Accredited Herd No. 72406

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Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

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50 HEAD JERSEYS - 50

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High record cows and their progeny. Several high class bulls from R. of M. dams. U. S. Accredited Herds. Financial King and Noble of Oaklands breeding.

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Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write

ROLLA OLIVER, Route No. 5, Independence, Mo.

CEDAR CREST FARMS FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,

Lake Villa, Illinois

Belswood Farm Jerseys

Four choice bulls, 5 to 12 months of age, all out of Register of Merit dams. Accredited herd.

A. F. BLOCK, Mgr. Norwood Park, Ill.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.



Raleigh's Torono's Meme 544207 16086 lbs. milk 902.15 lbs. fat.

World's Championship Blood

We have nine bull calves for sale carrying the same blood lines as the famous Raleigh's Torono's Meme, World's Champion Jr. 2-year-old Jersey, including her son, Meme's Torono, sired by Raleigh's Torono, a silver medal bull. Write us for complete pedigrees and prices.

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300 Choice Registered Cows, Heifers, Bulls

Consigned by the leading breeders of Holstein cattle from 30 counties in Western Wisconsin. All cattle selected by a sale committee appointed to secure only the most desirable animals.

The Greatest Opportunity you ever had to buy one animal or a carload of cows, heifers or bulls that are bred right, developed right and are choice individuals.

Don't fail to attend this sale. For further information address

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Over 50 cows in the Oaklands herd are with calf to him. He continues to breed as sure and his progeny continues to be the same outstanding individuals. Our show herd now on the circuit is composed largely of the progeny of Oxford Sultan of Oaklands. Won at the Wisconsin State Fair the following group classes:

Aged herd—THE OAKLANDS
Young herd—THE OAKLANDS
Calf herd—THE OAKLANDS
Get of sire—THE OAKLANDS
4 cows in milk—THE OAKLANDS

Sons of Oxford Sultan of Oaklands transmit type and production.

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Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home--joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.

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GUERNSEYS

GUERNSEYS!

The Quality-Quantity Breed

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This advertisement is written by an organization that is trying to improve dairy conditions in the United States. We advocate the judicious use of pure-bred cattle, in bull associations, cow testing associations, calf clubs, and similar organizations.

Ask for "The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
Box HD-121 Peterboro, N. H.

We Have Sold 20 HEAD to Lowell Gable, at Paoli, Penn.

This lot consists of one young bull and the remainder females. A majority of the latter are good milk cows and they are bred to Emmadine's great herd sires. ALL OF THESE ANIMALS WILL BE IN THE LOWELL GABLE SALE OCT. 15TH.

EMMADINE FARM
Hopewell Jct., N. Y.
J. C. Penney, Owner, Jimmy Dodge, Mgr.

Two-days Sale!

REGISTERED GUERNSEYS

OCTOBER 15

FIFTY FRESH COWS

Consigned by the leading breeding farms. The A. R. cows include

DUCHESS RUTH, 850 LBS. FAT
BERNICE DARLING, 703 LBS. FAT
KING'S LASS, 683 LBS. FAT

The bulls include

LANGWATER BUTTERBOY
PENCOYD STRONGHEART
HIGHPOINT KING CAVALIER

OCTOBER 16

Joint Dispersal Sale!

Upland and Meadowbrook Farms

Highclass A. R. and Imported cows. Mixter King, full brother to the World's Champion. Mixter Faithful and a number of his get. Also 30 grade cows. 150 head in all.

For catalogue address
LOWELL GABLE, PAOLI, PA.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.
WADDINGTON FARM, Wheeling, W. Va.

PUBLIC SALE!

Of Registered and Accredited
GUERNSEYS
TUESDAY, OCT. 7, 1924
7 MILES N. E. OF DANVILLE, IND.
Beginning at 1 P. M.

17 COWS. Good breeders and heavy producers. 4 are imported and 7 have A. R. records. 3 YEARLING BULLS. 2 BULLS 9 mo. old and 4 BULL CALVES. Cows bred to Georgeland Winner, a grandson of King Masher, 11,084. Georgeland Winner's 3 nearest dams have records averaging 568 lbs. butter fat.

Indianapolis and Danville traction cars met at Stop 16. Send for catalog.

NORMAN E. PARSONS DANVILLE, IND.

HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO
For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

10 Registered Guernsey Heifers!

MAY ROSE BREEDING. Some are from 500- and 600-lb. dams. Several are bred to a bull whose dam has 909-lb. record. Also several young bulls from 600- and 700-lb. cows.

DALE E. RUNDELL, Livingston, Wis.
ORE HILL FARM

—Registered— Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

HELENDALE GUERNSEYS

FOR SALE: Several good typy registered females at very moderate prices, also some young bulls.

WM. A. ERBACH, Athens, Wisconsin

While attending the National Dairy Show

VISIT THE FEDERAL ACCREDITED GUERNSEY HERDS OF BASSE BROS. five miles south of show grounds. 14 cows on A. R. test. Herd sire, son of Langwater Royal 4th, full brother to Pearl's Dot, 1st in Class AA. 25 daughters in our herds. Several for sale. Also bulls ready for service and younger, out of A. R. cows.

BASSE BROS., R No. 3. Sta. D., Milwaukee, Wis.
Tel. St. Martins—11J3 or 11J5

FOR SALE

YOUNG GUERNSEY COWS with A. R. records over 500 lbs. of B. F. and bred to freshen in November. Also 4 or 5 yearling heifers and one bull from dams with good A. R. records. Accredited herd.

ANTON O. BERGE, VALDERS, WIS.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

Lone Pine Guernseys

DISPERSAL SALE — Chicago Guernsey Farm

HINSDALE, ILL., OCT. 3, 1924

Owing to the death of Henry L. Stout this herd will be sold at above time and place by the surviving partner, F. D. Stout.

Type --- Breeding --- Production

The greatest lot of cattle offered at public sale this year. Twenty-nine cows in the sale have A. R. records that average 636 lbs. fat and one is over 900 lbs. and three other over 800 lbs. of fat. Many winners at the National Dairy Show including three cows that have won 1st.

Messrs. Stout have bought the best of the breed regardless of price and at that the best things offered are those bred on the farm.

THE HERD CONSISTS OF 85 HEAD and this sale will include the 60 best ones and others will be disposed of at private sale.

For Catalogue Address

CHARLES L. HILL, Sale Manager, Rosendale, Wisconsin

See Page Ad with Pictures issue of Hoard's Dairyman, September 19.

WAUKESHA CO. GUERNSEYS

If interested in purchasing Guernseys, visit our county where you have the opportunity of inspecting nearly 200 herds which include grades and pure-breds. All are tuberculin tested. It will be important to buy through an old, reliable County Breeders Association. *Write or Call on —*

WAUKESHA COUNTY GUERNSEY BREEDERS' ASS'N

F. E. FOX, Secretary - WAUKESHA, WIS.

FIFTH ANNUAL SALE

Blue Earth Co. Guernsey Breeders' Association

Mankato, Minn. — Oct. 8-9, 1924

35 P. B. COWS and HEIFERS. Some A. R. cows. 23 P. B. BULLS. Several out of A. R. cows up to 650 lbs. 50 GRADE COWS and HEIFERS. Several with C. T. A. records up to 500 lbs.

H. O. TELLIER, AUCTIONEER, FIRST NATIONAL BANK OF MANKATO, CLERK OF SALE.
Sales commence promptly at 1 o'clock each day.
Catalogues Sept. 15. Write for one to

DR. M. B. WOOD, Sale Manager, Mankato, Minnesota

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

Summer Bargains In Guernsey Bulls

Midsummer price reduction sale of Registered Guernsey males, calves and yearlings, May Rose breeding, mostly from A. R. cows. Federal Accredited herd.

RICHARD F. KLEMM, Baraboo, Wis.

Name Your Price!

We have a good bull for you. Leading Guernsey families. Tested dams insure production.

MASSACHUSETTS GUERNSEY BREEDERS' ASSOCIATION
J. E. HARPER, SEC'Y.
146 Summer St., Boston, Mass.

ISLAND FARM

Offers **-- Guernsey Males and Females**

grandsons and granddaughters of Beda's May King and Gold Lassie's Julian. 90 completed A. R. records average over 11,000 lbs. milk and 550 lbs. butterfat. Prices right. Write for descriptions and pedigrees to

ISLAND FARM
740 East Superior Street, Duluth, Minn.

Thorn Hill Farm Guernseys



Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.
E. S. PERSON, Minot, N. D.



This picture shows thirteen A. R. cows of the Circle W herd. These cows average 270 days on test and during May, June and July they produced 47,575 lbs. milk and 2, 171 lbs. of fat or an average of 41.9 lbs. milk and 1.91 lbs. fat per day for each individual. **BROOKMEAD'S SEARCHLIGHT**, our senior herd sire, is being used on these females. His offspring possess real type and character and have proven their merit in the show rings of the Middle West and East.

Write us for description and prices before you buy your next herd bull.

CIRCLE W FARM WALTER C. WHITE Owner — R. S. MARTIN Manager — **GATES MILL, OHIO**

CORIUM FARM, Inc.

FOND DU LAC - WISCONSIN

Announces the Purchase of ---

LANGWATER ULTIMAS 39637 A. R.



LANGWATER ULTIMAS

His first 6 daughters to complete their tests averaged 11,514.0 lbs. milk and 626.50 lbs. butterfat, holding the record of any bull of the breed for daughters with their first calves.

Langwater Ultimas will be bred to the daughters of Cherub's Prince and Superb of Edgemoor.

We invite you to inspect the Corium Farm Guernseys at the National Dairy Show; all but four of these animals sired by bulls in service at Corium Farm.

VISITORS WELCOME AT THE FARM AT ALL TIMES

DISPERSAL SALE!

Egypt Mills Guernsey Club

Cape Girardeau, Mo., Oct. 7-8



EMINENT OF SARNIA 32963

The Egypt Mills Guernsey Club is a corporation founded in 1919 to develop and promote the breeding of pure-bred Guernseys in Cape Girardeau Co., Missouri. The cattle used as a foundation were imported from the Islands and purchased in Wisconsin. The contract on which the cattle were placed with the farmers called for the dispersal of the entire foundation and increase at the end of five years' time. The five years is up and the cattle will be offered for sale at above named time and place. Included in the lot are many cows with A. R. and Cow Test records, many cows untested but capable of large records, 20 or more young bulls and a large lot of fine heifers.

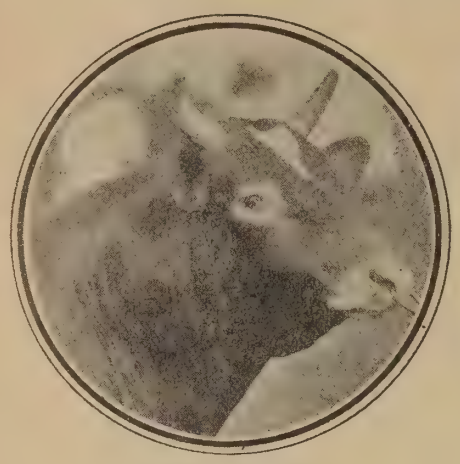
The club was most fortunate in securing as a herd sire Eminent of Sarnia 32963, one of the great sires of the breed whose first 9 daughters tested averaged 566.6 lbs. fat in classes GG, G, G, EE, E, E, FF, D, and D. One of these sold for $5,000. There are over 70 daughters of Eminent in this sale, and most of the heifers not his daughters are his granddaughters.

Eminent of Sarnia will be in the sale, and is in fine condition and a regular breeder. This will be a wonderful opportunity to pick up foundation Guernseys that you know will be great producers.

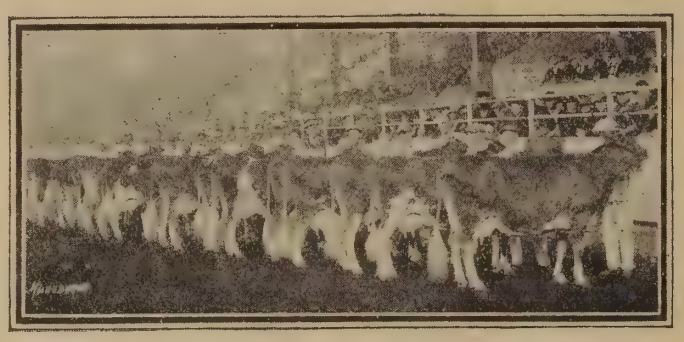
FOR CATALOGS Address —

CHARLES L. HILL, Sale Manager Rosendale, Wisconsin

Breed Character as Illustrated in the Herd Sires at Emmadine Farm



RESOLUTE 71989



FIRST 16 OF GUERNSEY AGED COW CLASS, 1923 NATIONAL DAIRY SHOW
7 of these were shown by Emmadine and 4 were included in the first 10.



FOREMOST 39191

Our bull calves are the result of carefully selected crosses of the breed's best blood. Inspect our herd at the National Dairy Show and secure information that will help you in selecting your next herd sire.

Up to June, 1924, 21 of our cows made records averaging 12,640 lbs. milk and 629 lbs. fat.

Our Successor Berkshires well merit the attention of every farmer interested in breeding profitable hogs.

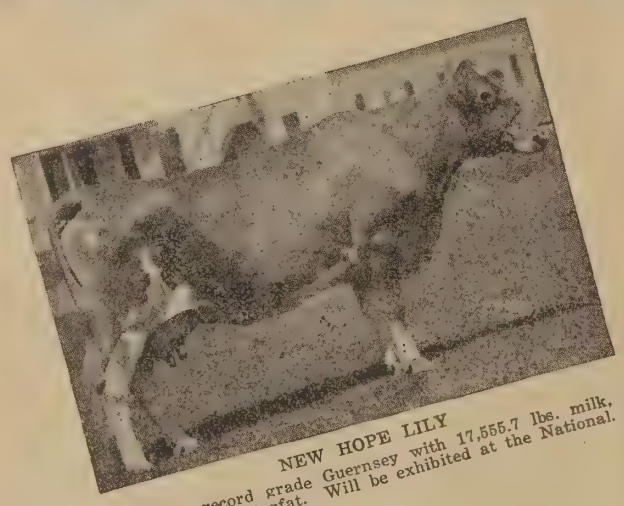
At the New York State Fair, 1924, we won both Grand Championships—the aged bull, 2 year-old bull, aged cow and Senior Heifer Calf classes. Also the following groups—Get of Sire, Exhibitor's herd, Produce of Cow, best 4 cows over 3 years old.

EMMADINE FARM, Hopewell Junction, Dutchess County NEW YORK

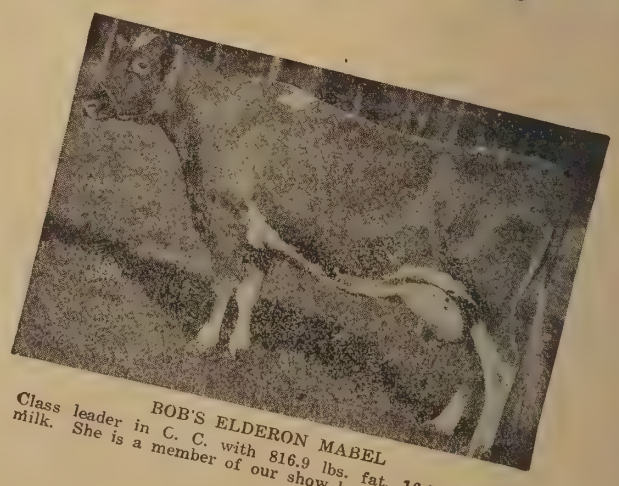
J. C. PENNEY, Owner JIMMY DODGE, Manager

Larsen's Fern-Dell Guernseys

100
PURE BREDS
—
200
GRADES



NEW HOPE LILY
World's record grade Guernsey with 17,555.7 lbs. milk, 887.74 lbs. butterfat. Will be exhibited at the National.



BOB'S ELDERON MABEL
Class leader in C. C. with 816.9 lbs. fat, 16,952.3 lbs. milk. She is a member of our show herd.

WE HAVE FOR SALE

20 PUREBRED COWS — 60 GOOD GRADES

THE PURE-BREDS are cows with official records and two-year-old heifers. Part of them are bred to a May Rose bull whose dam has a 732-lb. record.

THE GRADES include heifers and heifer calves, all by excellent registered sires, many of the older heifers bred for late fall and early winter freshening.

This is a herd that has been built up primarily for production. Our show herd, consistent winners this fall, prove the type we have obtained. A clean herd of the kind we believe you want to buy from.

SEVERAL GOOD BULLS

One of these is a first class two-year-old, Corium Raider Durand. He is sired by a son of Border Raider whose dam, a daughter of Gov. of the Chene, produced 629.5 lbs. fat in Class F. His dam, a granddaughter of Border Raider produced 738 lbs. fat. You will like him.

Another 2-year-old bull sired by a son of May King's Vrangue of Ingleside out of a dam that produced 459.07 lbs. fat in Class E. A very good individual. Other young bulls from a few weeks to 14 months old from A. R. dams with records up to 612 lbs. fat.

See Our Show Herd at the National — The twenty-four head we have had out this fall have placed well at Aurora, the Wisconsin State Fair, the Michigan State Fair, the Illinois State Fair, and the Dairy Cattle Congress. We invite you to inspect them at the National.

If you wish to purchase good Guernseys, see us at The National or come to Fern-Dell Farms. You will find our prices reasonable. We will gladly meet you at Green Bay if you will let us know in advance.

LARSEN'S FERN-DELL FARMS, A. W. FOX, Manager Green Bay, Wisconsin

Connecticut Holstein Record

Connecticut's new champion Holstein cow for ten months' production as a junior three-year-old is Nutmeg Elsie Hibma, owned by F. M. Peasley. In 305 consecutive days she produced 16,630.5 pounds milk containing 615.32 pounds butterfat, equivalent to 769.1 pounds butter, according to the Advanced Registry Department of the Holstein-Friesian Association of America.—Extension Service Holstein-Friesian Association of America.

The great advancement of the world throughout all ages is to be measured by the increase of humanity and the decrease of cruelty.—SIR ARTHUR HELPS.

BROWN SWISS

ANNOUNCEMENT

KINNELON FARMS, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name, ownership and location.

The entire herd was moved during the month of August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.

The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.

Herd fully accredited, Certificate number 65301

LEES' HILL FARM, New Vernon, N. J.
P. O. Morristown
MR. AND MRS. WARREN KINNEY, Owners
HARRY KROEMMELHEIM, Herdsman

HOLSTEINS

BULL CALF

BORN DEC. 18, 1923.

ire: "Chief Korndyke Johanna Ormsby," whose even nearest dams average over 1,000 lbs. butter in year. Dam: "Ormsby Banostine Homestead," a randdaughter of "Duchess Skylark Ormsby" over 500 lbs. butter 365 days. Now on semi-test. Price 100.00. Pedigree and Photo.

KEWAYDIN FARMS, R 1,
. A. Schmidt & Sons, Ladysmith, Wis.

Fond du Lac Co. Holstein Association

OFFERS GOOD HOLSTEINS

oth pure-breds and grades from clean herds. ? you want cows, bulls or calves for calf club ork we can supply your order up to several ar loads. Our prices are very reasonable.
ARL BRUGGER, Sec., Fond du Lac, Wis.

Green County Holtsein Breeders' Association

an furnish Holsteins. Choice grades nd pure-breds, all ages, any number. Bulls of serviceable age. Calves or calf clubs. Reasonable prices.
W. KEATING, Sec'y, Monroe, Wis.

AUK COUNTY HOLSTEIN ASS'N.

ire-bred cows, bulls, heifers, calves. Good olsteins from clean herds. On hand at all nes.
. T. GILL, Sec'y., Reedsburg, Wis.

HERD SIRE FOR SALE

bst King Pontiac Lad 15th, our 4-year-old sire is sale. His sire is a 39-lb. 1040-lb. son of King ntiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

BUY YOUR HOLSTEINS

re you can get good, clean cattle at fair prices—re an experienced, reliable man will give you every stance free of charge. Grade or pure-breds in any mber you wish. JEFFERSON COUNTY HOLSTEIN LE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.

Purebred and Grade Holsteins

have a surplus of splendid fall-freshening, pure- and grade Holsteins. Oldest Holstein section in isconsin. More Holsteins than any similar territory.
DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

Wisconsin Dairy Show Sale!

— TO BE HELD AT —

WAUKESHA, WIS.

Monday, October 6th, 1924

FOLLOWING DAIRY SHOW

Committee Cut Sale to One Day — Less Numbers, but More Quality

The Females in the Sale

Include Many Offerings From Truly Wonderful Bulls

A good list of Matador Segis Walker's daughters including: A 21-lb. 3-yr.-old; a 2-yr.-old daughter of a 30-lb. dam, with over 1000 lbs. butter for the year; 2-yr.-old from a dam with 800 lbs. butter and 20,000 lbs. milk in a year as a 2-yr.-old; 1st calf heifer with over 24 lbs. and bred to Carnation Segis Prospect; a good record daughter of a 35.83-lb. cow, and bred to Carnation Segis Prospect.

Two granddaughters of Matador, one from a 26-lb. dam, both in calf to a finely bred Homestead bull.

Three full sisters sired by Sir Bess Ormsby Fobes, and from a World's Record dam. Two bred to Creation. This trio is hard to beat. Chance for Foundation Herd.

A 35.83-lb. foundation cow with the following records: 21 lbs., 2 yrs.; 23 lbs., 4 yrs.; 33 lbs., 5 yrs.; 35 lbs., 6 yrs.; and nearly 1000 lbs. butter in a year. Two of her daughters in the sale also.

Drafted—One of Wisconsin's Greatest Producers. The old fashioned kind. A cow with 31 lbs. butter in 7 days, 1197 lbs. in a year, and 28,900 lbs. milk. Due soon after the sale.

An Outstanding Daughter of Creator, from a 32-lb. 3-yr.-old dam; next dam, 34 lbs. In calf to the Prilly bull. This wonderful heifer has everything to be desired in a Dairy Heifer.

A fine 30-lb. cow; a 29-lb. cow; a 27.39-lb. cow and her two daughters; a 23.73-lb. daughter of King Pontiac of Brothertown; a record daughter of a 30-lb. dam, next dam 35 lbs.; a good record daughter of King Superba; a 20-lb. 2-yr.-old due right after the sale to King Bess 6th; a daughter of Bairdland Segis Sirprize, bred to a full brother to the Grand Champion bull at Wisconsin.

Two daughters of Marathon Aaggie. Bred to the 42-lb. bull, King Bess Burke Ormsby.

A daughter of King Bess Burke Ormsby, bred to a son of Iowana Sir Ollie.

One of the nicest things in the sale—a daughter of a 29-lb. cow, and from a 41-lb. sire. Due right after the sale. A beautiful heifer.

A 2-yr.-old granddaughter of Count, and from the foundation cow, Pauline Aaggie Grace, 31:50 lbs.

A Wonderful List of Bulls

Popular Breeding

A son of Sir Pietertje Ormsby Mercedes 41st. From a 30-lb. 4-yr.-old daughter of Iowana Sir Ollie, with nearly 1000 lbs. for a year. A Classy calf and lots of breeding.

A son of Marathon Aaggie from the 33-lb. 4-yr.-old state record daughter of King Bess Burke Ormsby.

A great grandson of old Sir Pietertje Ormsby Mercedes. His dam has 1080 lbs. butter for the year. Good breeding.

A remarkable bull calf sired by Carnation Segis Prospect and from a 30-lb. 3-yr.-old daughter of Matador Segis Walker, now on year work. A bull with a future.

A long distance grandson of old Sir Piet., and from a 945-lb. 2-yr.-old granddaughter of Count.

A son of Ormsby Princess Lad Son. His dam has 33 lbs. butter in 7 days, 648 lbs. milk.

A 27-lb. grandson of King Segis Pontiac Count.

Several bulls from the Show Circuit, including a Jefferson Co. Show bull, a Jr. Champion at Wisconsin, a son of the State Record cow with 832 lbs. milk in 7 days and 3400 lbs. in 30 days.

Two wonderful aged bulls. One, a son of 37th, a good individual of great dairy type. This bull has produced a good list of daughters, either in A. R. O. production or show ring achievement. The other aged bull is a Show Bull. Having won his class several times at Milwaukee in younger form, he comes back this year as a 5-yr.-old and stands third in one of the greatest bull classes of our breed. His daughters in the sale will look well.

In selecting the cattle for this sale, the Committee has taken great pains to have each animal qualify for a sale of this kind, if not always in regard to records, without exception in regard to Dairy Qualities and Future Promise.

Held Under the Auspices of the Wisconsin State Holstein Association

Auctioneers --- Mack and Wood

FOR CATALOGUE WRITE

F. H. EVERSON, Mgr. LAKE MILLS WISCONSIN **or** **L. L. OLDHAM, Sec.** MADISON WISCONSIN

PURE-BRED HOLSTEINS LEAD WISCONSIN'S COW TESTING ASS'NS

A Holstein Herd is Highest in 165 Associations

"Canary," A Holstein Leads Them All for 1924



--Support the Cow Testing Ass'n

PAULINE ORMSBY DE KOL CANARY

A pure-bred Holstein, the highest cow of all breeds in Wisconsin's 165 cow testing associations. In 323 consecutive days she produced 22,914 lbs. milk and 839 lbs. fat. Owned by Leo Kuhl & Son, Hazel Green. Clarence Kuhl, the man in the picture, fed and milked "Canary" during the entire test period. "Canary" is from Wisconsin's leading Cow Testing Association herd consisting of thirteen pure-bred Holsteins. These thirteen Holsteins produced an average of 15,118 lbs. milk and 534.5 lbs. butterfat during the last association year. The average net profit over feed cost was $196.00 per head.

Is YOUR HERD in a Cow Testing Association ?

As preliminary and supplementary to Advanced Registry work each breeder can benefit directly by entering all of his producing animals in a cow testing association.

There are four outstanding reasons why every dairyman should be a member of a cow testing association.

1. It helps to reduce feeding costs.
2. It weeds out the poor producers at small expense.
3. It points out the cows best qualified to be placed on official or semi-official test.
4. By obtaining cow testing association records on all the daughters of the herd sire his breeding value is indicated definitely and quickly at a minimum cost.

The cost of testing a herd of thirty cows or less in a cow testing association averages approximately $40.00 per year. Besides the above mentioned outstanding advantages cow testing associations when universally adopted will help to stabilize the entire dairy industry by getting rid of unprofitable milk producers, the real cause of surplus dairy products.

If you are not in a cow testing association NOW, See Your County Agent.

Cow testing associations deserve the active support of every Holstein owner. The Cow Testing Association Manual just completed will be sent to you free upon request.

See Our Exhibit at
The National Dairy Show
Milwaukee, Wis. (State Fair Grounds) Sept. 27-Oct 4

The Extension Service
HOLSTEIN-FRIESIAN
ASSOCIATION of AMERICA

230 E. Ohio St. CHICAGO, ILLINOIS

Daisy Hill Herd

TO BE DISPERSED!

For Reasons Beyond Our Control

October 17-18
At the Farm

110 Head Pure Bred HOLSTEINS

INCLUDING,—

1200-LB. COWS
1100-LB. COWS
1000-LB. COWS
900-LB. COWS
800-LB. COWS
30-LB. COWS

and others with smaller records but of our best breeding that any good dairyman can afford to buy.

Only a Few Bulls Beside the Herd Sires

A Clean Herd With Health Guaranteed

For Catalogs Ready Oct. 1 Address ---

Daisy Hill Farms
Chagrin Falls, Ohio

Second Annual Mississippi Valley
Holstein Show *and* **Sale**

October 9, 1924
St. Louis, Mo.
St. Louis University Field, Laclede and Grand Aves.

60 Head
Selected Holsteins Registered Free from Tuberculosis

Consignments

4 Grand Daughters of Matador Segis Walker, by a 28 lb. son

7 Grand Daughters of Sir Pieterje Ormsby Mercedes, by a 30 lb. son

5 Grand Daughters of Finderne Pride Fayne, by an "ONA" cross whose first four dams average more than 1100 lbs. of butter

Bred cows and heifers that will be springers

Open heifers of best blood lines

Bulls of approved breeding

The Holstein Classic of the Mississippi Valley
Catalogue on request
Write Doane Agricultural Service
3207 Washington Ave., St, Louis, Mo.

BUY AT MURPHY FARMS

Your Herd Sire — Foundation Females

Murphy Farms, the home of Wisconsin Fobes 5th, has a herd of 170 registered females representing the best blood lines of the country. Ninety-two 7-day records have been completed there in the last four years and 48 of our milking herd have finished excellent year and 305-day records, including 6 that are state champions in their classes. Twenty-five cows are now on test, one promises to become Wisconsin's first 30,000-lb. cow within the next two months.

Our Herd Sires Are

AMBASSADOR FOBES—a son of 37th and that Grand Old Cow, Wisconsin Fobes. He is a full brother to "Fobes 5th."

PRIDE OF THE SIR PIETS—a son of Wisconsin Pride 2d, world's record daughter of "37th", and by Marathon Bess Burke.

We Have For Sale—

Sons of these sires from a few weeks old to those that are serviceable. Most of them are from A. R. O. dams. We have a few from non-record dams.

Several good cows and heifers, offered because our herd has now reached the size where we must begin to sell good females to make room for daughters of our own sires. All of these have good records or are from tested dams.

Every animal sold from Murphy Farms must be exactly as represented. You will find our prices very reasonable.

Farms at Egg Harbor Door Co., Wis. **MURPHY FARMS** Office 303 Bellin Bldg. Green Bay, Wis.

JEFFERSON COUNTY —HOLSTEINS—

See them at the National!

Jefferson County has good Holsteins and in order that those who do not visit the county may know something of the kind we breed, we have for the past several years sent a representative county herd to several of the larger fairs. We will have such a herd at the National Dairy Show this year and we invite you to inspect it.

At Aurora, Ill., the Wisconsin State Fair and the Minnesota State Fair the herd won 17 firsts, 2 junior championships, 4 senior championships and 4 grand championships.

Are You Thinking of Buying? — Stop at Our Booth . .

Jefferson County offers decided advantages if you want to buy Holsteins. There are 1,000 herds of black and whites in the county; you have a chance to select just what you want whether pure-breds or grades.

Our secretary is employed by us to give you every assistance. He will gladly take you to visit those herds where such cattle as you want are for sale, and if you buy, he will get your cattle assembled, tested and loaded out for you. **This Service is FREE to You!**

Call at our booth at the show. It will be with the Jefferson County exhibit. We would like to tell you about Jefferson County Holsteins.

Jefferson Co. Holstein Breeders' Association

T. W. ANTHES, Sec. JEFFERSON, WIS.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

JOHN H. PULS - - ALLENTON, WIS.

PUREBRED and GRADE HOLSTEINS

PURE-BRED HEIFERS and COWS, due to freshen this fall, at $150 to $200. Also have some granddaughters of 37th, with records up to 25 lbs., junior 2-year-olds at $350.

RANDOLPH HOLSTEIN ASS'N.,
B. W. Pierce, Sec'y., RANDOLPH, WIS.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Echo Sylvia King Model 266177

SENIOR SIRE IN THE TRAVERSE CITY STATE HOSPITAL HERD

This herd stood 2nd as breeder and tied for 3rd as owner of cows on the 1924 Honor Roll

A WONDERFUL PRODUCING HERD OF 200 HEAD

ECHO SYLVIA KING MODEL has 42 A. R. O. daughters and as many more in the herd as yet untested. His highest record daughter, to date, is a 32.33-lb. Jr. 3-yr.-old. His sire is by the best son of MAY ECHO SYLVIA. His dam is a 36-lb. 4-yr.-old daughter of a 37-lb. cow. His full sister is a 34.77-lb. Sr. 3-yr.-old.

Send for our list of bulls for sale from this great herd.

BUREAU OF ANIMAL INDUSTRY
Department B Lansing, Michigan

Iowana Ona King Pietertje

Born July 25, 1923

A son of Meadow Holm Ona Hartog King, and from a daughter of Sir Johanna Fayne. His dam has a good two-year-old record and is dam of a 950-pound junior three-year-old.

Bull is three-fourth white and a fine individual.

Send for pedigree and particulars.

IOWANA FARMS (*Herd under Fed. Supervision*) Davenport, Iowa

Bargains in Registered HOLSTEIN BULLS---all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.

Hargrove & Arnold, Norwalk, Ia.

When writing advertisers please mention Hoard's Dairyman.

200 Carloads of Holsteins

is our motto for this year. We can supply you with as many as you want. Carload lots our specialty. Fine selection, courteous service, and reasonable prices. Less than one-half of one per cent T. B. Home of the World's Greatest Bull Association.

LIVINGSTON COUNTY HOLSTEIN-FRIESIAN ASS'N
Burr J. Hoover, Secretary Howell, Michigan

10 Ormsby Cows — Several Excellent Young Bulls

I am offering for sale 10 good Ormsby cows sired by a grandson of S. P. O. M. They are from 4 to 7 years old and are fresh or due shortly. The bulls are exceptionally good calves priced to move quickly. This is a clean herd.

C. J. WILL. TEMPLETON, WIS.

OUR HERD SIRE Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Walcowis Farms

OFFER—

Desirable grandsons of Iowana Sir Ollie, sired by Sir Ollie Mooie Watson and North Star Gift Champion. Dams have records up to 32 lbs., also good year records. Write or visit us.

WALCOWIS FARMS, N. Dickinson & Son,
Lake Geneva, Wisconsin.

HOME FARM HOLSTEIN FRIESIANS

A Feature of the Sale

will be the four wonderful daughters of Sir Sadie Cornucopia, that average nearly 1,000 lbs. butter for the year. Their average weight is 1850 lbs.; they have made together 10 yearly records that average 825 lbs. All sired by the best son of Sadie Vale Concordia—the first 30-lb. cow. *This group includes the highest record cow ever sold in Iowa.*

HOME FARM DISPERSION TUESDAY— OCTOBER 14th

52 FEMALES 12 BULLS — At the Farm, Adjoining Chapin, Iowa — *An Accredited Herd* — *60- to 90-day Retest*

The Home Farm Herd, established in 1881, was for nearly 30 years the leading show herd of the Middle West—ranking in a class by itself not only for winnings in the prize rings but in the butter tests at fairs. The herd has been developed in recent years with the same ideals of type that characterized the early show animals and the average quality and conformation of the herd today is the best in its history. Every female in the herd except one has been bred on the farm.

There will be sold—7-day record cows up to 36 lbs. and yearly record cows over 1,100 lbs.; King Korndyke Sadie Vale 24th and 12 of his daughters; four daughters of Sir Sadie Cornucopia; twenty daughters of Woodcrest Sir Clyde.

Watch for further announcements.

W. B. BARNEY & SONS
CHAPIN, IOWA

TO BE SOLD



QUOQUE KORNDYKE SADIE VALE 2d
A daughter of Woodcrest Sir Clyde from a 36-lb. daughter of K. K. S. V. 24th.

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

RIVER MEADOW FARMS, Portlandville, N. Y.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

OHIO HOLSTEINS FOR SALE

Registered **COWS, HEIFERS** and **BULLS.** Very choice Calf Club **CALVES.** State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.

HOLSTEIN BULL

BORN MARCH 11, 1923

His Sire a son of Marathon Bess Burke and Wis. Fobes 6th. His Dam, Sis Veronica Piebe, has a 305-day record of 683 lbs. butter from nearly 18,000 lbs. milk. This bull is a good, straight individual and a good buy. Pedigree, photo and price on application. Herd Federal and State Accredited.

J. LYNARD Owatonna, Minn.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes,** a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby,** a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.
Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

HOLSTEIN FEMALES FOR SALE

SIX REGISTERED COWS and **HEIFERS** with good long time semi-official or cow testing association record backing. Write for price list. Federal accredited herd.

B. A. NORRIS, Anoka, Minnesota.

Visit Hollyhock Farms

--- While at the National Dairy Show!

We Invite You to Include in Your National Dairy Show Trip . . . a Visit to Hollyhock Farms . . .

The Best Individual Son of S. P. O. M. 37th.

His Dam is that Great Foundation Cow Wisconsin Fobes.



SIR BESS ORMSBY FOBES 217272

His First Six Daughters Tested on Hollyhock Farms Average 21 lbs. butter in 7 days as jr. 2-year-olds.

¶ Regardless of what line of breeding most interests you we believe you will enjoy seeing Hollyhock Farms and our Holstein herd. Sir Bess Ormsby Fobes, our senior sire is recognized to be the best individual son of "37th". We have fifty of his sons and daughters. Some of these are out of "41st" daughters, which is proving a wonderful cross. We would be pleased to have an opportunity to show them to you.

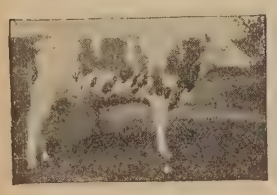
¶ The Farms are 30 miles east of Milwaukee, on highway 67. Take either highway 41 or highway 19 to 67. Train service is good to Oconomowoc via. C. M. & St. P., or to Dousman via. the C. & N. W. Electric line offers hourly service to Dousman road near the farm.. Also bus leaves Milwaukee every hour for Oconomowoc.

¶ We will gladly meet you at Oconomowoc, Dousman, or the interurban stop if you will advise us when you are coming, or when you get there.

HOLLYHOCK FARMS, Dousman, Wis.

GUSTAVE PABST, Owner **Phones — Oconomowoc 92, or Dousman 371** **F. J. SOUTHCOTT, Manager**

A Clean Herd Under Federal Supervision



This Handsome Bull For Sale--$400

Six nearest dams average 1,007 lbs. butter in a year

Sire, **SIR WALKER SEGIS HOMESTEAD,** a show bull (31 A. R. O. daughters), a "PIEBE" son from a 1,230-lb. (former world champion) daughter of **"COUNT".**

Dam, **MARIE PONTIAC PRIDE,** 745 lbs. butter in 365 days as a junior two-year-old, while her dam made 1,016 lbs. butter as a four-year-old.

A TOP-NOTCH INDIVIDUAL WITH A SPLENDID PEDIGREE. Born August 26, 1923. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

A Very Good Bull For Sale

7-DAY AND YEARLY RECORDS—INDIVIDUALITY

CARLETON SILVER BOW is a young bull we know will suit you. He was born Dec. 11, 1923. His dam, a daughter of Count King, produced 27 lbs. butter in 7 days and 917.58 lbs. in a year. His sire, Colonel Abbekerk Pontiac Segis, a son of Count, is from a 34 lb. 1,227 lb. dam. His two nearest dams average 31 lbs. in 7 days, 1,072 lbs. in a year.

He Is Priced To Sell. Write Today For Price, Pedigree, Etc.

CARLETON COLLEGE FARMS. Federal Accredited Herd NORTHFIELD, MINN.

Do Not Take Chances!!

Buy From An Accredited Herd!

We can offer a dozen well bred, high producing females, bred to or sired by our three times thousand pound, line bred Ormsby sire. Herd state and federal accredited.

BECK & PETERSON, R. 3, RACINE, WISCONSIN

—2nd— ANNUAL Hickory Grove Stock Farm Sale

At the Walter Beilke Farm, Fairwater, Wis., Oct. 8th

58 REGISTERED HOLSTEINS, including 39 Females, all close Springers, Yearlings to 8 years; 19 Serviceable Bulls

WALTER BEILKE consigns 17 females, 2 to 8 years, close springers in calf to a 28-lb., 856-lb. son of King Bess, who is a 33-lb., 1,235-lb. grandson of S. P. O. M. Real producers, good size and type, all have good C. T. A. records; 13 serviceable bulls sired by the 28-lb. bull, several from A. R. O. dams.

BEIR BROS., RUSH LAKE, consign 18 young cows, all springers, bred to a 900-lb. Ormsby bull, including a 25-lb. cow and 2 of her daughters. The straight, typy kind, Five bulls sired by the 900-lb. bull. Two from A. R. O. dams.

W. J. GILLETTE & SONS, ROSENDALE, consign 4 yearling granddaughters of King Bess, all out of good A. R. O. cows. A 27.98-lb., 703-lb. grandson of King Bess, born Jan. 6, 1924.

A good opportunity to purchase foundation animals and real herd sires at your own price. Homestead-Ormsby breeding means combined production and individuality. Sale at farm one mile north of Fairwater, six and one half miles south of Ripon, County road E. Trains met at Fairwater. Sale starts at 10:30 a. m. sharp. Held under cover.

Everything Sold Subject to 60-day Retest

AUCTIONEERS: POHLMAN, JONES — WRITE FOR CATALOG — IN THE BOX, FORREST GILLETTE

WALTER J. BEILKE FAIRWATER, WISCONSIN

HOLSTEINS and GUERNSEYS, For Sale

We have from 100 to 500 high grade and registered cows and heifers for sale at all times. Also choice registered bulls of each breed. These cattle come from the best herds in western Wisconsin. They are selected from the largest federal tested territory in the state and are assembled in the largest and most sanitary sale barn in the northwest.

West Salem is on the main line of the C. M. & St. P. and of the C. & N. W. Write us or better still come and select just what you want.

O. G. CLARK & CO., - - - - WEST SALEM, WISCONSIN

Mankato Holstein Farms

DISPERSAL

MANKATO, MINN. 125 HEAD -- Oct. 8-9

Four Clean Tests --- Selling With Retest Privilege



MANKATO FLOA ORMSBY KORNDYKE LAD
The only bull in the world whose dam and sire's dam are 1000-lb. 2-year-olds.

SELLING—



RUBY KAREN MERCEDES
Butter, 7 days, 4 yrs. 35.03
Five records average over 900.
Daughter of Sir P. O. M. 14th.
Two daughters and a son also selling.



MANKATO FLOA ORMSBY MERCEDES
Butter, 365 days, 2 yrs. 1051.52
Daughter of Sir P. O. M. 14th.
A son and daughter also selling.

A Wonderful Offering of Foundation Ormsbys

The herd has been built up entirely on "Ormsby" blood lines and combines very closely the blood of SIR PIETERTJE ORMSBY MERCEDES and ORMSBY KORNDYKE LAD, the only sires in the world having sixteen 1000-lb. daughters. The foundation sire was the great show bull, Sir P. O. M. 14th. Following him came a son of King Korndyke Colantha Ormsby from a Bess Burke dam; next, Ormsby Korndyke Lad 8th, a son of O. K. L. from a 1000-lb. 2-year-old. The present herd sire include the only bull in the world whose dam and sire's dam are 1000-lb. 2-year-olds, and a son of Marathon Bess Burke and Ruby Karen Mercedes.

OVER 100 FEMALES—

FIVE COWS with records from 1000 to 1200 lbs. butter in a year and ten daughters of 1000-lb. cows.

FIVE 30- TO 35-LB. COWS and several sons and daughters of 30-lb. cows.

THIRTY-FIVE DAUGHTERS of Mankato Ruby Marathon Ormsby, a show son of Marathon Bess Burke (The John Erickson Sire) and Ruby Karen Mercedes.

TWENTY DAUGHTERS of Ormsby Korndyke Lad 8th, a son of O. K. L. from a 1000-lb. 2-yr.-old.

OTHERS BY Sir P. O. M. 14th, 22d, 37th, King Colantha Ormsby Bess, Sir Korndyke Bess, and other noted sires.

25 MALES—

MANKATO RUBY MARATHON ORMSBY—Senior sire. A show son of Marathon Bess Burke and Ruby Karen Mercedes, one of the only six cows having five consecutive year records averaging over 900 lbs.

MANKATO FLOA ORMSBY KORNDYKE LAD—*Only bull in the world whose dam and sire's dam are 1,000-lb. 2-yr.-olds.*

A YOUNG SON of the senior herd sire from a 34-lb., 1194-lb. daughter of Sir P. O. M. 14th.

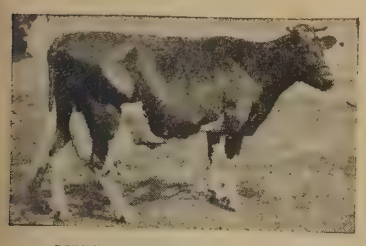
A YEARLING SON of Sir P. O M. 43rd from Snooks Nig De Kol who made 1,078 lbs. butter in a year.

See the Herd at the National

The Mankato Farms Show Herd Won the Premier Exhibitor Banner at the 1924 Minnesota State Fair

SEND FOR ILLUSTRATED FOLDER

TWIN CITY PEDIGREE & SERVICE CO., Sales Managers, 211 Market Bank Bldg., MINNEAPOLIS, MINN.



MISS PIETERTJE BURKE
Butter, 365 days 1194.98
Daughter of Sir P. O. M. 14th.
Twin daughters and a son selling.



BESS ORMSBY MAID
Butter, 365 days 1128.61
Daughter of Sir Korndyke Bess.



CORNUCOPIA CORONA 2D
Butter, 365 days 1009.95
Two daughters also selling.

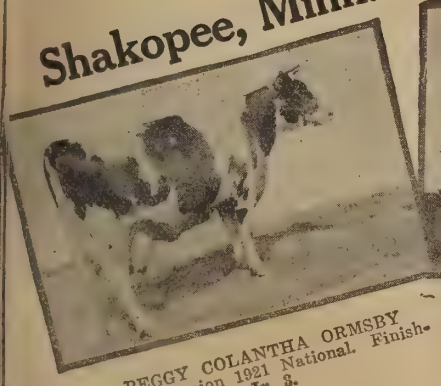


TWIN YEARLING SHOW HEIFERS
Whose dam and sire's dam are the highest record daughters of Sir P. O. M. 14th.

Dr. H. P. Fischer Dispersal

Federal Accredited Herd

Shakopee, Minn. — **October 11th**



PEGGY COLANTHA ORMSBY
Jr. champion 1921 National. Finishing with 1100 as Jr. 3.



PRINCESS AAGGIE POLKADOT DK
Butter, 365 days 1,399.78
Milk 34,070.50
The Highest Year-record Cow Ever Offered at Auction



DUKE'S MIXTURE
Three-year-old son of cow at left and the $33,000 sire.

70 REGISTERED HOLSTEINS

A wonderful herd for type, breeding and high production. Herd is headed by DUKE PIETERTJE KORNDYKE ORMSBY, with DUKE'S MIXTURE, his 1399-lb. son, as junior sire. Nearly every female of milking age has a large record and the herd contains several first prize winners at State and National shows.

FEMALES

FOUR COWS with records from 1000 to 1400 lbs. butter, and up to 34,000 lbs. milk in a year.

TEN OTHERS with records over 800 lbs. butter in a year, most of them in heifer form.

FIFTEEN DAUGHTERS of Duke Pietertje Korndyke Ormsby, the $33,000 sire, with records up to 1100 lbs.

TWENTY-FIVE DAUGHTERS of Duke's Mixture, the 1399-lb. son of Duke Pietertje Korndyke Ormsby.

MALES

DUKE'S MIXTURE—The 3-year-old show son of Princess Aaggie Polkadot De Kol and Duke Pietertje Korndyke Ormsby. A bull qualified to head any herd.

DUKE PIETERTJE KORNDYKE ORMSBY 31ST—A 3-year-old son of "Duke". An outstanding show bull. First at the 1924 N. W. Dairy Exposition.

SONS OF "DUKE" and Duke's Mixture from high record dams.

IF YOU WANT SOMETHING CHOICE in a herd sire, attend this sale.

SEND FOR ILLUSTRATED SALE FOLDER

TWIN CITY PEDIGREE & SERVICE CO., Sale Managers
211-H Market Bank Bldg. **MINNEAPOLIS, MINNESOTA**

F. H. BAUER DISPERSAL

OCT. 13th
DELANO - MINN.

70 REG. HOLSTEINS

Rich in the blood of PIEBE LAURA OLLIE HOMESTEAD KING, sire of the American Champion butter cow, May Walker Ollie Homestead (1523 lbs.)

60 FEMALES

Over half of them are daughters of SIR PIEBE HOMESTEAD SEGIS, a show son of "Piebe" and from a daughter of King Segis Pontiac.

Practically all the cows will be fresh or due this fall. Many of them bred to the junior sire, SIR ARBY ORMSBY PIEBE, who combines the blood of Ormsby Korndyke Lad, "Piebe", "Count" and Pietertje Maid Ormsby.

10 MALES

A splendid lot of bulls of excellent type and breeding. A few ready for service.

Send for descriptive folder.

This Sale Offers a Good Opportunity to Buy Foundation Cattle of Popular Breeding.

TWIN CITY PEDIGREE & SERVICE CO.
SALES MANAGERS
211 Market Bank Bldg., Minneapolis, Minn.

Stop Mistakes in Painting

—follow the Farm Painting Guide



SHERWIN-WILLIAMS FARM PAINTING GUIDE

TRADE MARK

SURFACE	TO PAINT— USE PRODUCT NAMED BELOW	TO VARNISH— USE PRODUCT NAMED BELOW	TO STAIN— USE PRODUCT NAMED BELOW	TO ENAMEL— USE PRODUCT NAMED BELOW
AUTOMOBILES	S-W Auto Enamel	S-W Auto Enamel Clear		S-W Auto Enamel
AUTOMOBILE TOPS AND SEATS	S-W Auto Top and S-W Auto Sear Dressing			
BARNS, SILOS, OUT BUILDINGS, Etc.	S-W Commonwealth Paint S-W Roof and Bridge Paint		S-W Preservative Shingle Stain	
BRICK	SWP House Paint S-W Concrete Wall Finish			Old Dutch Enamel
CEILINGS, Interior	Flat-Tone	Sear Not Varnish	S-W Handcraft Stain Floorlac	Enameloid
Exterior	SWP House Paint	Rexpar Varnish	S-W Oil Stain	Old Dutch Enamel
CONCRETE	S-W Concrete Wall Finish			
DOORS, Interior	SWP House Paint	Sear-Not Varnish Velvet Finish No 1044	Floorlac S-W Handcraft Stain	Enameloid
Exterior	SWP House Paint	Rexpar Varnish	S-W Oil Stain	Old Dutch Enamel
FENCES	SWP House Paint Metalastic S-W Roof and Bridge Paint		S-W Preservative Shingle Stain	
FLOORS, Interior (wood)	S-W Inside Floor Paint	Mar-Not Varnish	Floorlac	S-W Inside Floor Paint
Concrete	S-W Concrete Floor Finish			S-W Concrete Floor Finish
Porch	S-W Porch and Deck Paint			
FURNITURE, Indoors	Enameloid	Sear-Not Varnish	Floorlac	Old Dutch Enamel Enameloid
Porch	Enameloid	Rexpar Varnish	S-W Oil Stain	
HOUSE OR GARAGE Exterior	SWP House Paint	Rexpar Varnish	S-W Preservative Shingle Stain	Old Dutch Enamel
IMPLEMENTS, TOOLS, TRACTORS, WAGONS, TRUCKS	S-W Wagon and Implement Paint	Rexpar Varnish		
LINOLEUM	S-W Inside Floor Paint	Mar-Not Varnish		S-W Inside Floor Paint
RADIATORS	Flat-Tone S-W Aluminum or Gold Paint			Enameloid
ROOFS, Shingle Metal Composition	S-W Roof and Bridge Paint Metalastic Ebonol		S-W Preservative Shingle Stain	
SCREENS	S-W Screen Enamel			S-W Screen Enamel
WALLS, Interior (Plaster or Wallboard)	Flat-Tone SWP House Paint			Old Dutch Enamel Enameloid
WOODWORK Interior	SWP House Paint Flat-Tone	Sear-Not Varnish Velvet Finish No 1044	S-W Handcraft Stain S-W Oil Stain Floorlac	Old Dutch Enamel Enameloid

For Removing Paint and Varnish use Taxite—quick—easy—thorough—economical—can be used by anyone—on any surface.

SHERWIN-WILLIAMS PAINTS AND VARNISHES

For Cleaning Painted and Varnished Surfaces use Flaxoap Made from linseed oil—contains no free alkali—restores original lustre

© 1924, S. W. Co.

For instance:— painting woodwork first thing to do.



The joy of new paint

Away, every trace of dinginess! Woodwork, yesterday streaked and dull, today lights up the whole house with its fresh whiteness. Scratched floors that embarrassed beautiful rugs now set them off as a new frame enhances a fine picture. You can see your home begin to smile as each stroke of the brush covers an old surface.

LOOK on the "Guide" for the *right thing to use* for *woodwork*.

Consult the "Guide" before selecting the finish for *any* surface.

Something is wrong when a once beautiful room has to be done over again too soon. The chances are the wrong type of material was used.

Every expert knows that each type of surface (indoors and out) calls for its own type of paint. Paints must be selected according to *type*. The same is true of varnishes, of stains and enamels.

When you look at the Farm Painting Guide you look at authoritative recommendations. On a line with the surface to be finished you pick out the correct material as easily as you select a color from the color card.

Save this copy of the "Guide" for use when needed.

Your "Paint Headquarters" serves you with the Sherwin-Williams Painting Guide. It will pay you to look up this store.

You will know "Paint Headquarters" by the Painting Guide displayed in the window and inside the store. This store serves you intelligently, backed by the "Guide." The proprietor and clerks help you save money by avoiding mistakes. Look for this store and "follow the 'Guide'." It costs you nothing to be *sure*.

Write for free suggestions on your painting problems to the S-W Dep't of Home Decoration. Ask, also, for free booklet B 450 and the handsome set of color plates giving eight beautiful color schemes for different rooms. Send 50c (65c in Canada) for the 177 page book of valuable detailed information on beautifying the home. Reproductions of the latest color ideas for interior and exterior—a book you would not part with for many times its price. Write Dept. B 435 at address below.

Getting good work

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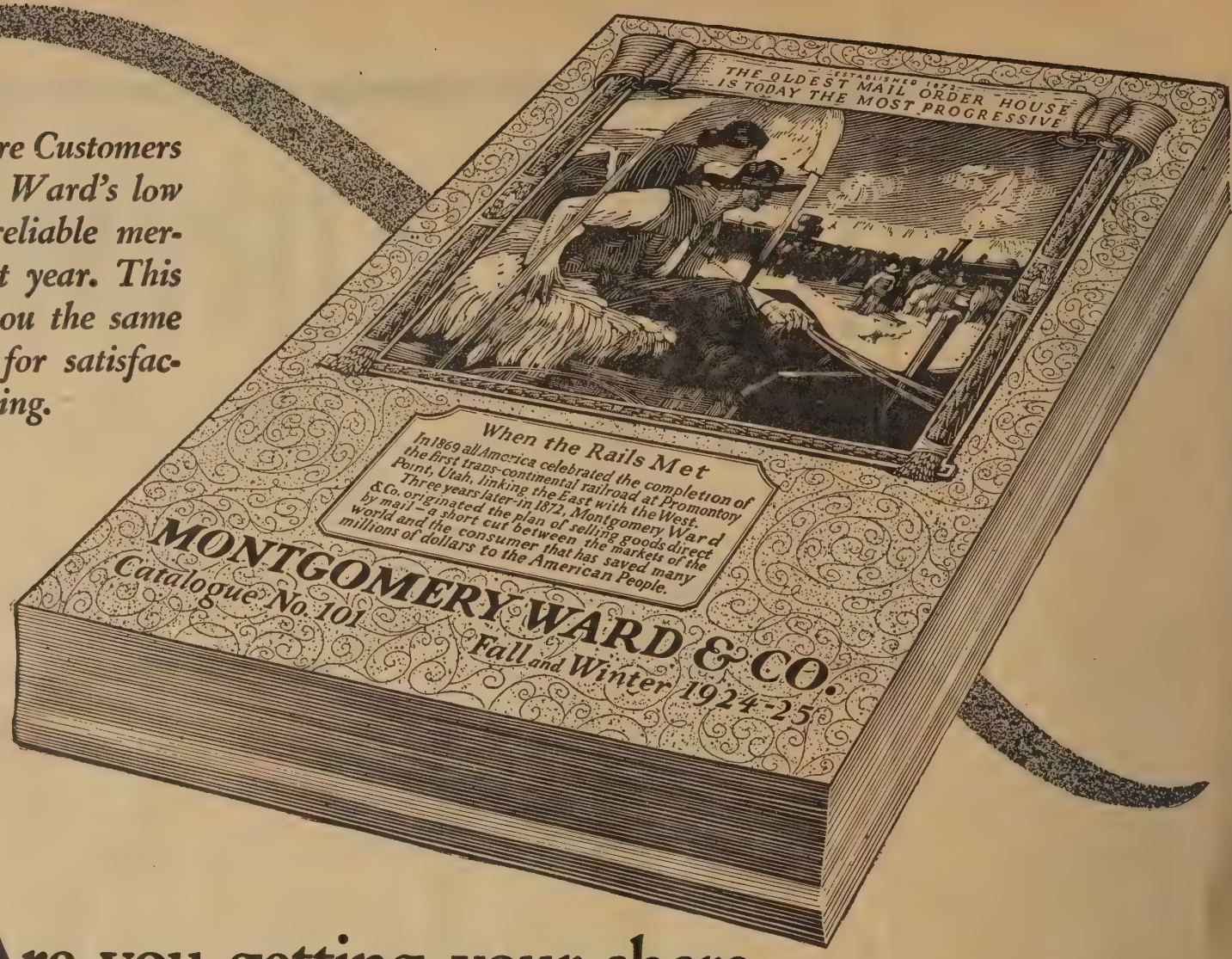
HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 12 Fort Atkinson, Wisconsin October 3, 1924

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HOARD'S DAIRYMAN

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A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., OCTOBER 3, 1924 Number 12

HOW PETER COLOGNA KEPT HIS BOYS

CLIFFORD FARMER, MISSOURI

SIXTEEN years ago Peter Cologna held a consultation with himself. His health was failing, his three sons were nearly grown and likely to leave him with the two hundred acres of timber land on his hands. Money was scarce, farming was not showing



PETER COLOGNA

a profit, so he could not blame the boys for wanting to turn to something more promising.

Then he had a vision. He had heard of the success other farmers had had with dairy cows and the idea of turning the place into a dairy farm suggested itself. The boys liked live stock, of that he was sure. He called them in and they talked the matter over. The outcome was that the sons agreed to stay and give dairying a try.

To finance such a venture money had to be borrowed and a local banker consented to a loan of $400. Out of this amount a cream separator was purchased, cutting the capital to $315. This amount was used in selecting all of the "four gallon" cows that could be found in the county for sale. But they soon found that a "four gallon" cow did not always give thirty-two pounds of milk. The first cream check, received October 5th, 1905, amounted to 51 cents.

But the Cologna brothers were made of the kind of material which succeeds in spite of mistakes. The dealer who sold them their cream separator gave them a trial subscription to Hoard's Dairyman. Following the advice they found in its columns, they bought milk scales and a Babcock tester and began culling the cows and replacing with better ones. From that time until the present, milk has been weighed at each milking and records kept, no guesswork being used in culling. In 1907 the records show receipts from the dairy herd had doubled that of 1905 but, with the herd averaging only 177 pounds butterfat and most of the grain to be bought out of that, there was only a very slight margin for a profit.

At first most of the feed had to be bought outside. Then as the timber was cleared out and the run-down spots that had been cultivated formerly covered with manure from the dairy herd, more and more the feed was homegrown. So well has the farm been built up in the years that followed that now legume crops grow abundantly, thanks to the barnyard manure.

The first bull was a nondescript sort of the all-purpose breed and his heifers were not very promising. Then a neighbor bought a registered Guernsey bull and offered to breed the Cologna cows for two dollars each. The old bull was discarded at once. From that time forward things were better. The heifers sired by this bull showed improvement over their dams, convincing the Colognas that Guernseys were good dairy cattle. So well did they like these calves that they went out and purchased a registered Guernsey cow of high producing ancestry. She arrived at the farm in the spring of 1907, marking the first introduction of females of the breed in south Missouri.

This cow was in calf to a good bull and dropped a bull calf which was retained as the herd sire. After that the herd made rapid strides forward, choice females being added from time to time and good sires being selected. Guernsey blood soon predominated in the grade herd. The grades were gradually culled out to make room for the pure-breds and at present the herd numbers around 100 head, most of which are pure-breds. The farm has grown to 600 acres, better buildings have been erected, modern equipment put in and the timber cut off to make room for clover, alfalfa, soy beans, and corn. The rougher land has been seeded in pasture grass, silos erected, and the whole farm built up to high productiveness.

The great amount of work necessary to carry on such a farm successfully has called for specialization. Joe, the youngest son, looks after the herd, John attends the creamery and Louis has charge of the crops.

In 1911 the Colognas made another stride forward when they decided to build a modern creamery on their farm in order to be able to market the quality products of their Guernsey herd at a premium. Success followed the venture. They found ready sale for their "Fancy Table Butter, a Quality Guernsey Product". Leading grocery men in surrounding towns were eager to handle it and soon a demand was created that took every pound of butter they could produce. A quality product was their aim and twelve years of marketing in this way has brought no complaints. An average of ten cents a pound above market price for butterfat has been received for their butter, to which may be added 18 or 20 per cent, the difference in butter and butterfat. This difference in 1923 amounted to $1,700, enough to pay many times over for the extra work necessary in marketing their cream the fancy butter route. Last year's total butter sales amounted to $7,500 and this year is expected to go higher with more cows in milk.



NELLIE OF KOSHKONONG PLACE 2ND, ONE OF THE PURE-BREDS ON THE COLOGNA FARM

Improving their herd by the use of better blood is given by Joe Cologna as the secret of their success. In 1907 the herd averaged 177 pounds butterfat. In 1920 and 1921, when Advanced Register work was done, the herd averaged 402 pounds. This was partly due, of course, to better feeding but principally to better individuals.

Peter Cologna has a right to be proud of the achievement of his sons and to thank his lucky star for the decision that made him start them into the dairy business. That decision has kept them together in one great family and has brought success to them all.



THE FARM DAIRY IN WHICH THE COLOGNA BROTHERS MADE BUTTER THAT LAST YEAR SOLD FOR $7,500

Uniform Production Plan

A committee representing the milk producers and dealers of Milwaukee, Wis., was appointed last April to study the plan which was in effect for the first six months of 1924 to see if any changes could be made which would make it more satisfactory to the majority of producers. The committee report reads as follows:

"After studying the situation, the committee finds the feeling of producers toward the old plan about as follows: Those who ship nearly the same amount at all times of the year feel that the amount permitted above the base quantity should be less, so as to throw more of the supply into the 'manufactured price' class, thereby lowering the percentage of surplus and increasing the 'average price'. Those who have fallen into the 'manufactured price' class feel that the penalty is too great because of the low price which they receive for the entire month's shipment.

"To overcome the objections of both groups, the committee suggests the following plan:

"The average monthly production of each shipper during August, September, October, and November, 1924, shall be considered their base quantity.

"During the first six months of 1925 all producers will receive the regular 'average price' for any amount up to one and one-half times their base quantity. For all milk above this amount they will receive the 'manufactured price'. (For example: If a shipper has a base quality of 10,000 pounds and ships 20,000 pounds, he would receive the 'average price' for 15,000 pounds and the 'manufactured price' for 5,000 pounds.)

"Adjustments in the base quantities may be made by the dealers in the following cases: 1. New shippers who did not ship during the base months. 2. Shippers who wish to permanently increase the size of their milking herds. 3. Shippers having a low base quantity because of some cause entirely beyond their control.

"A list of all adjustments made shall be given to the Milwaukee Cooperative Milk Producers at the end of each month.

"Each shipper's base quantity shall be shown on his November, 1924, check or milk statement."

The plan outlined in this report has been adopted by nine of the largest Milwaukee dealers and will become effective January 1st, 1925.

Uncle Ab says that at least two lives are gladdened whenever someone is a bit more generous and more kind than is necessary.

SEWAGE DISPOSAL FOR FARM FOLKS

N. S. FISH, Wisconsin College of Agriculture

WHEN running water is installed in the farm home a sewage disposal plant becomes possible. The septic tank will take care of the drain from the kitchen sink, the bath tub, wash bowl, and toilet. The cost of a sewage disposal system need not be excessive. It can be built by the farmer himself and will give service for many years.

The cesspool and septic tank methods of sewage disposal may be said to be the results of attempts to apply municipal methods of sewage disposal to farm conditions. The septic tank represents in a way a simple municipal sewage disposal plant, while the cesspool remains as the example of a more primitive means of disposing of domestic waste.

Do Not Use a Cesspool

Cesspools still continue to be built. The common cesspool is nothing more than a large hole in the ground loosely walled up with stone or brick laid without mortar so as to allow the liquids to escape into the surrounding soil. The solids settle to the bottom and are more or less completely decomposed. Unless the soil is of loose formation, such as gravel, the solids will choke up the soil and the liquid will not readily leach away. If the soil is of dense formation or hard rock formation, fissures may be encountered, thus allowing the liquid to travel long distances and contaminate a water vein.

The great danger in using a cesspool lies in the fact that by its operation raw sewage is permitted to escape with no purification whatever. Under favorable conditions the cesspool is by no means safe. The fact that a neighbor has used one with no ill effect is no reason why anybody else should use one, as one death from such a source is too much to pay for the needless risk.

Such a means of sewage disposal is but little if any cheaper than the construction of the septic tank.

Septic Tanks

The septic tank at present is the most successful means of sewage disposal adaptable to farm conditions. The tank, as regards both construction and operation, is similar to a municipal sewage disposal plant. It is usually built of concrete or brick; even gasoline barrels have been used successfully.

The theory of sewage purification by means of the septic tank is based on bacterial action. It is a well known fact that sewage kept in a dark, air tight place tends to liquify. Two changes take place in the tank, the first being the settlement of the solids to the bottom and the grease and lighter particles floating to the top. The second is the breaking up of the settled solids. These changes are brought about by minute organisms, known as bacteria, which change the sewage to soluble compounds. The groups of bacteria accomplishing this are known as anaerobic and facultative bacteria. The dissolved organic compounds, if latter brought into contact with an abundance of air, are acted upon by a different class of bacteria known as aerobic, which change the organic compounds into insoluble, harmless, mineral compounds. Both types of bacteria are always present in decaying waste and the group that will act on the sewage depends on the conditions surrounding it. Thus, in an air tight place, as in a septic tank, the anaerobic type will thrive best, while with an abundant supply of air, as in a porous soil, the action is that of the aerobic type.

The method of purification of sewage by means of the septic tank involves both of these actions. The sewage is held in an air tight enclosure until it is liquified. It is then discharged into a tile system laid in a porous soil where it undergoes further purification by the action of aerobic bacteria and becomes nearly pure water.

It has been stated, and many are of the opinion, that when the sewage leaves the septic tank it is 90 per cent pure. This is wrong, as the sewage goes through very little purification in the tank. The function of the tank is to break up the solids. It does not necessarily remove or destroy disease organisms.

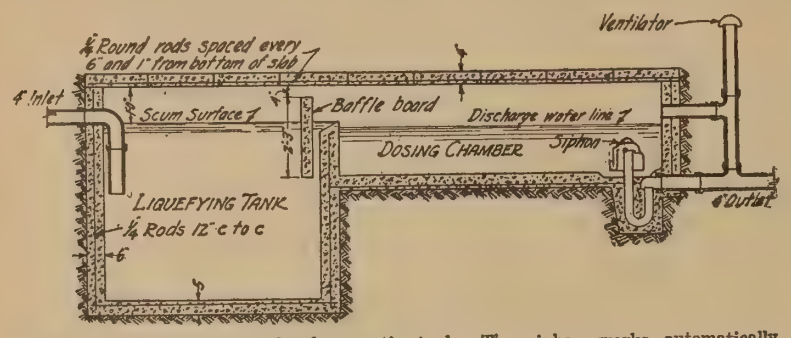


Figure 1. Standard two-chamber septic tank. The siphon works automatically emptying the tank whenever it reaches a certain level. It requires little or no attention. The following table gives the capacities of different sizes of this style of septic tank:

No. of people	Size of Liquifying or Settling Tank: Capacity* Gals.	Inside length Ft.	Inside width Ft.	Depth† Ft.	Size of Dosing Chamber: Capacity Gals.	Inside length Ft.	Inside width Ft.	Drawing depth‡ Inches
4	270	3	3	5	120	4	3	15
6	359	4	3	5	180	6½	3	15
8	493	5½	3	5	240	8½	3	15
10	624	6	3½	5	300	9	3½	15
12	718	6	4	5	360	9'5"	4	15

*Capacity is given for a depth one foot less than specified to allow for sludge and scum. †Below bottom of inlet. ‡Of siphon.

How Built

Figure 1 illustrates a double compartment septic tank. It consists of two distinct chambers separated by a partition and baffle board placed in such a way that the liquid flowing from the first to the second tank disturbs neither the top nor the bottom surface of the liquid in the first tank. In this way a scum forms in the first tank which not only excludes air but also aids bacterial action. The solids are retained and liquified in the first tank so but very little solid material gets to the second compartment. The discharge of the sewage takes place in the second chamber by means of an automatic syphon.

An overflow is provided to carry off the liquid in case the syphon fails to function. This is usually run into the vent pipe located just outside the tank.

By its construction the double compartment tank, with its one deep chamber and one shallow chamber, brings the point of discharge nearer the surface. This is very important on very nearly level ground because it allows the absorption system more fall. The depth of the second compartment can be made deeper and its length lessened if the slope of the land will permit.

On leaving the tank the liquid passes into the absorption system. Between the tank and the absorption system vitrified clay or cast iron pipe with water-tight joints laid with a fall of ⅛-inch per foot or more should be used.

The absorption system consists of a line or lines of four-inch common drain tile laid with open joints in some porous substance as sand, gravel, or cinders. Tarred paper or other suitable material should be placed over the joints to keep out dirt.

The liquid leaks out of the joints between the tile and is immediately absorbed. Further purification is accomplished here by the aerobic bacteria. The intermittent discharge of the liquid by the syphon is necessary for the successful operation of the absorption system. The rest period gives the air a chance to permeate the soil and furnishes oxygen necessary for life of aerobic bacteria.

The Tile Line

The number of tile required is influenced principally by the character of the surrounding soil. Ordinarily 50 feet of tile should be provided for each person in the house. In a soil containing sand or gravel this amount can be reduced.

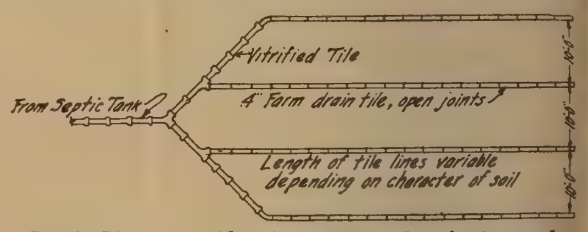


Fig. 3. Plan of an absorption system used on level ground.

The lines of tile should preferably be laid six feet apart with a fall of about 3 inches in 100 feet. The tile works successfully when placed 14 to 20 inches below the surface. No difficulty from freezing will be experienced at this depth.

The location of the absorption system should be at least 100 feet from a well or spring and in such a direction from it that the surface wash and underground seepage are away from the water supply.

Single chamber septic tanks are sometimes used in connection with tile lines.

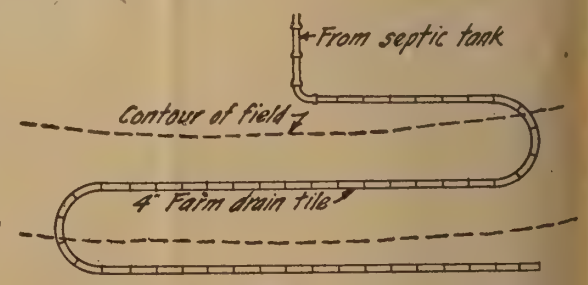


Fig. 4. Plan of an absorption system used on hilly slopes.

Another method of disposing of sewage is that of running it into a stream. This is recognized as a dangerous practice and in most states permission must be obtained from the State Board of Health.

Another method that can quite frequently be used is a single chamber septic tank and a dry well as illustrated in Figure 5. The dry well is built the same as a cesspool but does not render itself liable to clogging in that it does not receive solids. The dry well should not be less than five feet in diameter and should have a depth of six feet or more below the inlet pipe. The dry well should be located where there is no danger of contaminating a water supply, well or spring. The leaching compartment should be 50 feet away from the dwelling or cistern and 150 feet away from a surface well or spring. No abandoned water supply well should be used for a dry well.

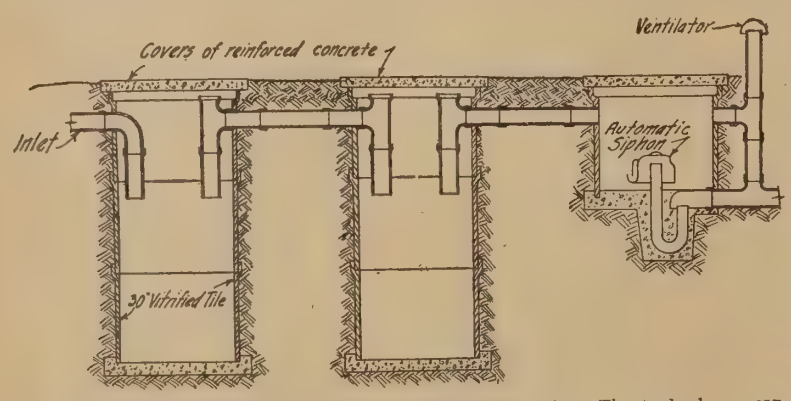


Figure 2. A septic tank constructed of vitrified sewer pipe. The tank shown can be satisfactorily used for a family of 4 to 6 people.

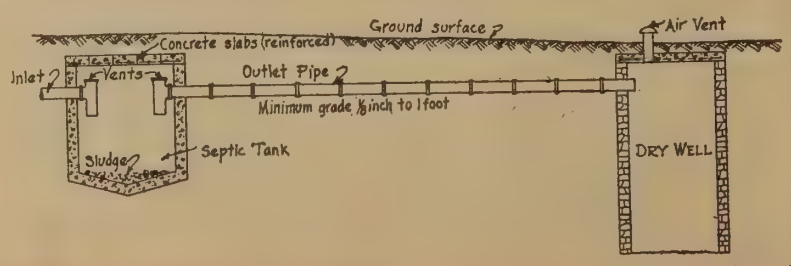


Fig. 5. A sewage disposal system consisting of a single chamber spectic tank and dry well.

BREEDING TO THE BREEDERS

A. C. HEYMAN, OREGON

FOR nearly two centuries breeders have worked to perfect various strains of dairy breeds. Yet the average dairy cow of the United States produces annually less than 160 pounds of fat, and the average of 120 cow testing associations shows an annual production of only 264 pounds fat.

When we compare these records with the work of one breeder, who started with the average of the best pure-breds and developed a family of Jerseys which has increased production 70 per cent in five generations, besides giving to the breed three world record cows, as many as produced by any herd, no matter how large, we ask, "How was it done?"

This was the question I put to Mr. C. C. Dickson of Oregon, owner and manager of the Ashburn Herd, who has accomplished this remarkable record with the progeny of three old proven cows.

"By breeding to the breeders," was his curt reply.

Then he went on to say, "When I left college in 1910 to go into partnership with my father and assume management of the herd, I had a vision of a family of Jerseys which would have five qualities: production, size, vigor, prolificacy, and prepotency, or the power of leaving a uniform lot of high class calves in the herd. I believed that if I could bring about this combination of qualities, and particularly the last, it would only be a matter of time when I could have a large family of high producers which would continue to beget high producers."

These five things appear like a simple ideal I thought, yet I could not comprehend how one could bring about such remarkable results in so short a time. Certainly here was an unusual, wizard-like marshalling of the forces of nature, the understanding of which would reward the most painstaking investigation. I further surmised that this man had not only an ideal but also a definite and speedy method of accomplishing that ideal. So I put the question straight, "Dickson, what do you mean by 'breeding to the breeders?'"

"I mean just this," he replied, "that in order for a cow to remain in our herd, she must not only possess for herself the first four qualities mentioned, but she must have the ability when mated to the right kind of a sire to improve these qualities and pass them on to a uniform offspring. Most females do not possess this ability and owing to the tendency of reversion, their daughters do not average up to the dams. And to us in a breeding way the value of a cow is judged solely by the qualities of her daughters and sons. An animal is either a breeder or is eliminated.

"Even among many of the finest pure-breds there is the constant tendency to reversion. Often an individual of high production and fashionable pedigree is only a cull from a breeding standpoint, as her daughters do not uniformly inherit her qualities. And if she cannot pass her good qualities on with a good degree of sureness, what good is she? Her goodness dies with her and as a breeder she has been of no value. Her daughters are also dangerous to keep as the tendency to reversion may be even stronger."



SILKY HAT AT 18 YEARS

This cow was one of the three foundation cows in the Dickson herd and is a sister of Pearly Exile of St. Lambert, the champion junior 2-year-old. Silky Hat has nine Register of Merit daughters, which is said to be the largest number credited to any cow of any breed.

Becoming more keenly interested, I interrupted and asked, "What do you mean by 'daughters uniformly inheriting her qualities'?"

"Let me illustrate," he said. "Suppose we had two cows, A and B, exactly alike in conformation and production and we rated both at seven points each. Each has four daughters, the average number of daughters of a good cow, as follows:

"Cow A rated at seven points out of a possible ten has four daughters,

A 1 rated at 10 points
A 2 rated at 4 points
A 3 rated at 8 points
A 4 rated at 5 points
Total average, 27 points

"Cow B rated at seven points out of a possible ten has four daughters,

B 1 rated at 8 points
B 2 rated at 7 points
B 3 rated at 7 points
B 4 rated at 8 points
Total 30 points.

"Now, the total points of A's four daughters average 6¾ points, or less than A, and there is a great variation in their value, showing that A is very unstable in passing on her traits. Besides, experience has repeatedly shown that A's best daughter A 1, will probably be as uncertain in passing on her high qualities as her dam. Therefore, *in considering A as a breeder, we pay very little attention to her best daughter and all of our attention to her poorest daughters and the variation between them.* In our opinion A is an undesirable and both she and her daughters are eliminated.

"On the other hand, B's four daughters average 7½ points and are all as good as herself and two of them are better, thus showing that this cow is likely to be free from the 'reversion to type' tendency and tends when properly mated to improve with her offspring. While B's best daughter does not come within two points of A's best daughter, yet one of B's daughters should give birth to a stronger and more uniform line of descendants which will average higher in production than any of A's daughters. With B, therefore, there is an opportunity of improving the breed, and she and her line are kept in the herd."

Continuing his discussion Mr. Dickson said, "The breeder who wishes to improve his herd instead of just raising and selling pedigreed stock must do many things.

"First, he must keep individual production records, not for a year but for a lifetime. We have them for every milking for every cow owned in the last 20 years. These records reveal the true value of a cow and the tendency of the whole family—whether the 'pull' is upward toward improvement, or downward toward ancestral average.

"Second he must be merciless in culling. He is concerned with more than just a world record maker in milk production. If this were his goal, a cow, such as A 1, above illustrated, would reward his ambition. But too often a cow such as A 1 is only a sport which exhibits a decided variation from the normal type, and her offspring, though frequently selling at fabulous prices, are apt to be uncertain breeders. And if this be true, no matter how popular her pedigree or high her record, she is only a cull as a breeder and she should not be allowed to propagate her kind.

"While we have had a great many high producing pure-breds, the cull-

(Continued on page 350)



LULU MAY OF ASHBURN
Record: 711 lbs. fat.



LULU FLOSSIE OF ASHBURN
Record: 698 lbs. fat in 305 days and freshened again in less than 12 months. Former world's record senior four, class AAA.



WILDA OF ASHBURN 2ND
Record: 304 lbs. fat at 2 years.



VALENTINE'S ASHBURN BARONET
Gold and silver medal sire and credited by University of Missouri as 4th ranking sire among Register of Merit sires.



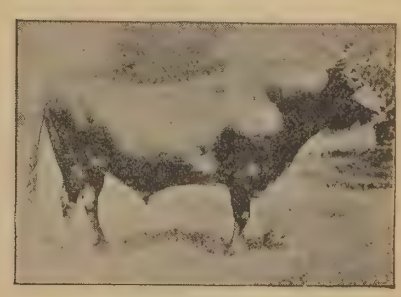
LULU MARY OF ASHBURN
Record: 845 lbs. fat in 305 days. World's record in class AAA.



LULU ALPHEA OF ASHBURN
Record: 800 lbs. fat at 22 months, and former world's record yearling.



ST. MAWES QUEEN
Record: 636 lbs. fat at 25 months.

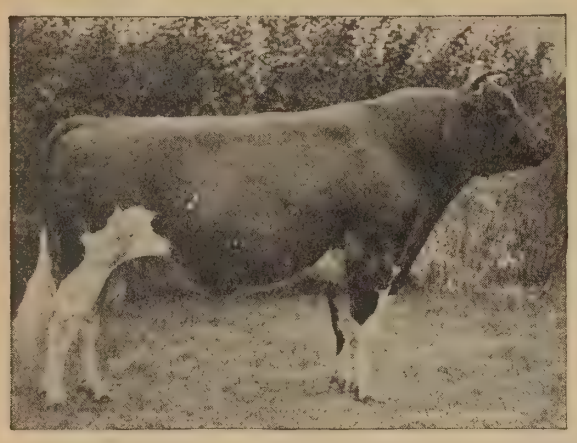


ST. MAWES OF ASHBURN
Silver medal sire and credited by University of Missouri as the 7th ranking Register of Merit sire.

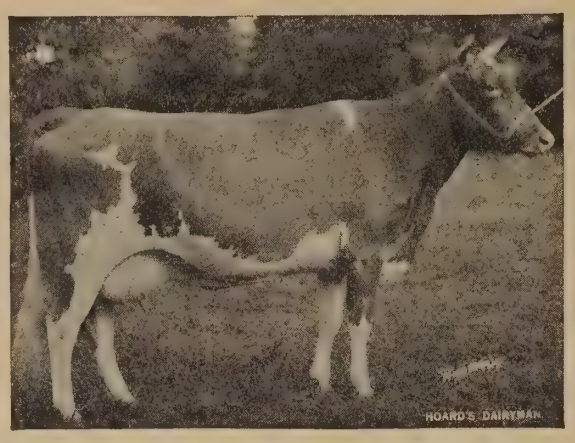
DESCENDANTS OF LUCY C OF HUMBOLDT, ONE OF THE THREE FOUNDATION COWS OF THE DICKSON HERD

Numbers 1, 2, and 3 are daughters of Wilda of Ashburn who is a granddaughter of the foundation cow, Lucy. Numbers 1 and 2 are by No. 4, and No. 3 is by the sire of her own dam. No. 5 is a daughter of No. 1 by No. 8. Numbers 6 and 7 are daughters of the inbred cow. No.3. by No. 8

EASTERN STATES EXPOSITION



HOLSTEIN BULL, FAIR OAKS HOMESTEAD DARKNESS
OWNED BY CONNECTICUT REFORMATORY, CONNECTICUT



GUERNSEY COW, MIXTER MAY PRINCESS
OWNED BY EMMADINE FARM, NEW YORK



JERSEY BULL, FERN'S WEXFORD NOBLE
OWNED BY TWIN OAKS FARM, NEW YORK

SENIOR AND GRAND CHAMPIONS AT EASTERN STATES EXPOSITION

ATTENDING the Eastern States Exposition at Springfield, Mass., September 14th—20th, was a real pleasure. Situated in the heart of New England and representing, besides the six New England States, New York, New Jersey, Pennsylvania, and Delaware, this annual exposition deservedly enjoys the distinctly individual honor of truly accomplishing its purpose.

For eight years the management has been building up public confidence and the remarkable growth year by year is ample proof of the success of their efforts. Their financial reward is represented by the fact that this year the new Industrial Arts building was opened. Very close to three acres are contained within its walls. It was gratifying to observe that exhibitors used every available inch of space.



FIRST PRIZE AYRSHIRE GET OF SIRE



FIRST PRIZE JERSEY GET OF SIRE

The Springfield show is commonly referred to as the cleanest show in the entire country. No pike or other avenues of side show attractions mar the ground within its gates. Acres of machinery exhibits, a huge building full of the best products manufacturers can make, good horse and automobile races, and a live stock show consisting of dairy and beef cattle, light and heavy horses exceptionally well handled provide interest and pleasure for every walk of life.

Boys' and girls' club work has always received considerable attention at the Eastern States Exposition. We do not know of any similar management that has worked as enthusiastically with the farm boys and girls. More than 75,000 youngsters from the North Atlantic States are constantly trying to represent their own club and state here. Only twelve, six boys and six girls, are accepted from any one state and this makes the competition very close and interesting. Camp Vail, named in honor of Theodore Newton Vail, one of the founders of the exposition and nationally famous for his work in connection with the nation's great telephone and telegraph systems, is the name for the buildings and ground devoted to the junior extension work in agriculture and home economics. This year the poultry club work was featured. One of the reasons for this was the addition of a large poultry show to the exposition's attractions. In another part of "junior territory" nearly 200 boys and girls from dairy calf clubs were located. The condition and appearance of the dairy calves was very praiseworthy and we hope to give more space to this work later.

Dairy Cattle

When we consider the four breeds represented, the 1924 rings were much better than last year from the individual breed standpoint. The Jersey show was the best of the entire year up to date. Frelinghuysen's Twin Oaks herd, probably the best balanced aggregation ever assembled on a fair circuit by any breeder, won a large portion of the money. Elm Hill Farm made a very good showing and won the blue from Twin Oaks in a few classes. Fern's Wexford Noble, the truly wonder bull, won the aged bull class senior and grand championships in his usual easy fashion. He was not carrying the same amount of flesh as in 1923. Counterstroke, a stable mate of the grand champion, was junior champion and reserve grand.



AGED JERSEY COW CLASS AS PLACED BY PROFESSOR YAPP

The aged cow class attracted ringsiders from every breed. Fern's Oxford Diana, a six-year-old matron of Frelinghuysen's, was finally placed at the head of the nineteen aspirants. Ellsworth's Juggler's Jersey Queen, who placed second last year, won the red ribbon again this year. Her foreward attachment and general udder texture did not show up quite as good after the milk-out as the winner. Toffee, a Rockclyffe Farm three-year-old, won the grand championship from Fern's Oxford Diana. The old cow may give her better competition on their next meeting. Fern's Oxford Silver Thread, a Twin Oaks yearling, was junior champion.

New England Holsteins looked better this year. The aged bull class was the outstanding feature of the show, and clearly outclassed the showing at the 1923 National. Fair Oaks Sir Homestead Darkness, showing better than last year, won in his



FIRST PRIZE HOLSTEIN GET OF SIRE



FIRST PRIZE GUERNSEY GET OF SIRE

class and the senior and grand championships for the second time. This class had ten mighty good individuals in it. Hargrove & Arnold's Triune Ormsby Piebe 27th was first prize yearling and junior champion. Last year this son of King Piebe won seven junior championships and he has added five more to his credit this year.



AUCHENBRAIN TOREADOR, SENIOR AND GRAND CHAMPION AYRSHIRE BULL
Owned by Middlesex Meadows Farm, Massachusetts

In the aged Holstein cow class the blue ribbon went to Amos Bridges & Sons on Maggie Ormsby Butter Girl. She is not a big cow but has plenty of character and easily placed over the dry Pinery Farm cow, Kismet Fayne of Valley View. Chesney Scotia Lothian, an Iowa entry, won the white ribbon in this class. Dorothy Ormsby Piebe, Hargrove & Arnold's excellent three-year-old, won the premier female honors and Pearl of Highlawn, a heifer calf belonging to F. P. Knowles, was junior champion.

One hundred seven healthy Ayrshires made a very creditable showing and a considerable improvement over 1923 when the National Dairy Show was the single event most herds pointed for. The aged bull class was not up to the standard we would like to see it as Auchenbrain Toreador had very little competition. This bull, owned by Middlesex Meadows Farm, repeated his 1922 victories by winning the aged bull class and senior and grand championships. The junior champion was the yearling, Strathglass Roamer, owned by Barclay Farms. This young fellow won the blue from a class of eleven and in what was undoubtedly the best male class of the day.

Holehouse Buttercup, a six-year-old from the Alta Crest herd, was the senior and grand champion. Barclay's White Flower, a junior yearling from the Barclay Farm herd, was the junior champion. The class of two-year-old heifers in milk was about as good a class of Ayrshires from the standpoint of type and breed character as has graced an Ayrshire ring this year. Monstone September Morn won this class. She is owned by Monstone Farm and is a daughter of the grand champion bull.

The Guernsey show was not as large as it should have been. A showing of less than ninety Guernseys at the Eastern States Exposition is certainly nothing to be proud of. Competition was not as keen as last year but the type and character of the blue ribbon winners as a whole were very good. Emmadine Farm was very conspicuous when the blue ribbons were tied. There are a large number of breeders with good herds who could well afford to send some of their animals to this exposition and we hope that 1925 will find some of them present.

Shorewood Resolute won the aged bull class, senior and grand championships in an easy manner. He is a rugged bull possessing a good amount of size, breed type, and character. Many will watch him with interest at the National Dairy Show. He is owned by Emmadine Farm. Valiant's King, a calf from the Emmadine herd, won the junior male championship honors. His real dairy type combined with good constitutional indications and clean cut features made him an easy choice for the junior honor.

Mixter May Princess was a very popular grand champion cow. She is an outstanding dairy individual and her general conformation is very pleasing. In judging her and other animals bred at Mixter Farm, Judge Clark called in Gordon Hall and relied entirely on his judgment. Many criticized Mixter May Princess in regard to her size and hind teat placement. These criticisms are just but her superiority over Adell of Burnham Beach in the aged class is apparent, although close. Both cows are owned by Emmadine Farm.

Gayhead's Clematis, a junior yearling heifer owned by George White, won the junior female championship.

(Continued on page 348)



UNIVERSITY OF NEW HAMPSHIRE DAIRY CATTLE JUDGING TEAM, WINNERS OF FIRST PRIZE IN INTERCOLLEGIATE DAIRY CATTLE JUDGING CONTEST
Left to right: J. M. Fuller, coach; D. A. Pettee, P. A. Moore, C. H. Fogg.



HOLEHOUSE BUTTERCUP, SENIOR AND GRAND CHAMPION AYRSHIRE COW
Owned by Alta Crest Farms, Massachusetts



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TOP NOTCH
A GUARANTEE OF MILEAGE

EDITORIAL COMMENT



It is not uncommon to hear the statement made that when a boy attends an agricultural college he is lost to the farm. This statement is scarcely substantiated by the record of the short course students who have attended the Wisconsin College of Agriculture. Better than 95 per cent of the graduates from the short course return to the farm and become real farmers.

CLEANLINESS FOR THE HOG

It is not uncommon to find swine kept under insanitary conditions. Too often the hog house and yard are the most illy kept of any department of the farm. It seems to be the opinion of some farmers that the hog does not require a clean place to eat or to live and that he will thrive a little better under dirty conditions. The hog is capable of doing fairly well under various conditions, but he does better, the same as all other animals, when his surroundings are kept clean and wholesome. Further, when he is given a chance to be clean, he is quick to accept it. It is a mistake to keep hogs in muddy yards or in unclean pens, or to feed them in places which are dirty.

Many diseases of farm animals can be directly attributed to the kind of care given to their quarters. Not only is disease more likely to break out among herds and flocks when they are kept under insanitary conditions, but invariably there is a waste of feed. Give the hog clean quarters in which to live, provide him a clean place to eat, and give him clean feeds and he will make more profitable gains.

FEED DID IT

Through a better system of feeding, the Minnesota Experiment Station was able to increase the production of a group of cows 36.7 per cent. The records made by these cows on the farm average 4,662 pounds of milk in a year, and at the University Farm of Minnesota, where they were fed a better balanced ration, the production average increased to 6,375 pounds of milk.

We have again and again pointed out the necessity of feeding cows well. There is no wisdom in keeping a large number of dairy cows and feeding them starvation rations. Many demonstrations have been held which show that the average dairy cow of this country is not receiving a sufficient quantity of feed to permit her to do a full day's work. It is false reasoning when the dairy farmer holds that because feeds are high in price and dairy products are not relatively as good in price, it is economical to feed less to his cows. In such instances it is better to sell the poorest producing cows and then feed those that are kept a generous ration.

We do not believe that it is wise at the present time to increase the production of dairy products but that the dairy farmers will do more to help solve their present problem if each one would dispose of a few of his poorest cows and then feed those that they keep better rations. The way to profit on the dairy farm is not through scrimpy feeding but through generous feeding.

A BRAND FOR MINNESOTA BUTTER

Minnesota is noted for the fine quality of butter produced by her co-operative creameries. In national butter contests, this state has carried off most of the honors. There has been a splendid demand for Minnesota co-operative creamery butter and good prices have been paid for it. The farmer who produces the raw material for making butter has profited because the creamery operators have been capable of manufacturing a high quality butter. The state, however, has not profited as it should, for the consumer has not been advised that Minnesota produces a quality product. In the past few months over four hundred Minnesota co-operative creameries have federated themselves into an association and have adopted a name for their butter, which is "Land O' Lakes". Before any butter can be put under this brand, it must score 92 or more. As Mr. A. J. McGuire, general manager of the Minnesota Co-operative Creameries' Association, states, "it is a significant fact that it is the first time in the history of the great farming state of Minnesota that a farm product ever went out of the state under the brand owned by the farmers."

The banners which Minnesota co-operative creameries have won at nationals have been of value to them, but the establishment of a brand will do more to stimulate prices than the winning of banners. Many consumers prefer to buy their products under a brand and are willing to pay higher prices for them. The establishment of a brand is simply meeting the desire of the consumer. It imposes, however, a responsibility, for unless the product is kept to a high quality, the brand will become positively injurious.

MACHINERY AND PROGRESS

A. W. Hopkins of the Wisconsin College of Agriculture says that one of the most striking contrasts which he noted in his travels in Europe is the use of machinery in the United States and the lack of it in Europe. Man power takes the place of machinery there. Methods of handling milk in foreign countries are far different than ours and the milk bottle is apparently unknown. Dairy farmers are rather suspicious of our cow production records and Hopkins found the farmers of Europe not so much interested in how much a cow will produce, as in how profitably she produces. The European dairymen would rather have less milk if it means more profit.

The American farmer should feel happy that so much of his work can be done by machinery and through it he has become the most efficient farmer in the world. Machinery takes the drudgery out of work and makes it a pleasure. The European farmer reasons a good deal like the harvest hand did at the time the self-binder was invented. They reasoned that if self-binders were used there would be no work for them to do. The self-binder has come and hundreds of other kinds of labor saving machinery, and the nation's labor is better employed today than at any time in the history of our country. Not only does it have better wages, more constant employment, but the entire population is living on a standard never equaled by any nation. The more machinery that can be brought into service, the greater progress will this nation make, provided we do not lose sight of the fundamental things in building a nation.

IMPROVEMENT THROUGH BOYS AND GIRLS

Rural school boys and girls in Portage County, Wisconsin, are helping to increase the acreage of alfalfa throughout their section. Farmers in this region have had difficulty in securing good hay crops. Because of the sandy nature of the land, a good clover crop came on the average of once in every four years.

County Agent Noble discovered that alfalfa could be grown successfully. He also put to use the marl beds which are found in certain lake bottoms in Portage County and which are high in lime content. Marl has been called the dairy farmers' white gold and has helped in converting sandy, low producing lands into green fields of alfalfa. Paper mill waste, also high in lime content and comparatively cheap, is being used to advantage by farmers in the vicinity of the mills.

Several alfalfa demonstrations have been conducted by H. R. Noble, county agent, during the past two years and the acreage of 200 is expected to increase more than sevenfold or to about 1,500 acres of standing alfalfa next year.

However, Mr. Noble found that in certain sections of his county there was no better way to demonstrate that alfalfa would grow successfully than to employ the school boys and girls. He secured some Grimm alfalfa seed and inoculated it, then he put up a large number of seed packets. There was enough seed in each packet to plant a small plot of alfalfa. A letter was sent to every rural school teacher in the county requesting a list of boys and girls who would be interested in growing and reporting upon a small plot of alfalfa at home. As a result, some 325 boys and girls in practically every part of the county have made practical demonstrations of alfalfa culture in their community this year. In planting their plots they were advised to lime the soil, using wood ashes, marl, paper mill waste, or some other form of available lime.

Seeing is believing and the demonstration plots of these boys and girls are convincing a large number of farmers in Portage County that alfalfa can be grown successfully on their farms. County Agent Noble employed the same method of seed distribution among the rural school children when furthering the growth of soy beans. The results were very gratifying. Mr. Noble contemplates the distribution of seed corn this way next year.

PROGRESS IN MICHIGAN

It takes men of vision and understanding to render a substantial service to agriculture. Too many of our so-called leaders look for short cuts to lead the dairy farmers of this country to success. There is no such course to be taken in agriculture and Professor O. E. Reed, of the Michigan Agricultural College, fully appreciates this. Michigan has made rapid strides in dairying since Professor Reed was put in charge of the Dairy Department of the Michigan Agricultural College. His program for efficiency in production was started some three years ago and is bearing fruit.

Particular attention has been given to cow testing associations, tuberculosis eradication, pure-bred sires, alfalfa growing, and a crusade against dairymen and farmers using substitutes for dairy products. The first cow testing association in the United States was organized in Michigan in 1906, but only during the past few years have the dairymen really taken an active and widespread interest in such organizations. Three years ago only eleven cow testing associations were in operation but today there are more than 100 associations organized and working. Along with the increased activity in cow testing has come better feeding and a greater interest in growing alfalfa. Five years ago there were only 76,000 acres of alfalfa reported in the state. At the present time there is a total of 500,000 acres in alfalfa exclusive of the 1924 seedings.

The tubercular eradication work has gone forward quite successfully. Seven counties in the state are now listed as Modified Accredited Areas by the Bureau of Animal Industry, five more have completed the second test on all cattle within their borders, while in nine other counties the first test has been completed. Twenty-two other counties have made their appropriations for the test and are on the waiting list.

A campaign is being conducted in the Upper Peninsula of Michigan at the present time to replace the scrub sires with pure-breds. Up to date more than 100 pure-breds have replaced 168 scrub bulls.

The methods used in creating the interest which has brought about these exceptional results are interesting. Dairy and alfalfa campaigns have been made in nearly 40 counties in the state during the past three years. One county is taken at a time. From 80 to 100 meetings are scheduled throughout the county during a period of ten days or two weeks. The meetings are held on certain farms where talks are made in the cow barn or in the field. The farmers from neighboring farms make up the audience and their interest can be judged from the accomplishments which have been made.

This kind of work stimulates the farmer to think and to act. It brings him useful information given under circumstances which are familiar to him and associated with conditions and affairs in which he is directly interested.

Ration With Cowpea Hay

Please give me a balanced ration made up of the following feeds: Plenty of cowpea hay, ground ear corn, ground oats, bran, linseed meal. This feed is for Jerseys producing 5 per cent milk and I expect to feed one pound of feed for each 3 lbs. of milk.

What change is needed when silage is fed?

McLeansboro, Ill. H. J.

When cows are fed a liberal quantity of cowpea hay, it is an easy matter to make a good ration for them. A good mixture to supplement this hay is as follows: Ground ear corn, 400 lbs.; ground oats, 200 lbs.; bran, 200 lbs.; linseed meal, 100 lbs. Feed about one pound of this mixture for each three pounds of milk produced. This ration supplies a very liberal quantity of protein, a little more than is essential for milk production. In view of this, we do not believe it would be necessary to modify the mixture when corn silage is fed. The cows should receive about 25 lbs. silage, or 3 lbs. to each hundred pounds live weight, and this would reduce the amount of hay the animals would eat.

Chickory Blue

About four years ago I bought a farm and chickory blue is scattered all over. Would like to know if any one has had experience as how to get rid of it.

Depauville, N. Y. J. M.

"Chickory is a relatively new weed in New York and, as far as I know, very little has been done toward developing methods for its eradication. I am therefore unable to give you anything very definite regarding the eradication of this weed. If the area which is infested is quite extensive probably the best manner of attacking this weed is to put the land into a cultivated crop for at least two years. During this time the crop should be cultivated frequently and any chickory plants that are not destroyed by cultivation should be removed by hand hoeing. This treatment, done thoroughly, should do much toward eradicating the chickory. Land which cannot be cultivated can be pastured closely with sheep. This will tend to kill out the chickory, but not as effectively as cultivation."

The above information was given us by Professor W. C. Muenscher of the Cornell College of Agriculture. Have any of our readers had experience with "chickory blue" and its eradication?

Cost of Cottage Cheese

If a creamery pays 50 cents a pound for butterfat how much will a can of 40 quarts of 40 per cent cream cost?

If skimmilk is made into cottage cheese and sold for 4 cents a pound, how much can a creamery afford to pay for the skim?

Naticoke, Pa. J. R. S.

Forty per cent cream will weigh approximately 8.28 lbs. to the gallon, and ten gallons (40 quarts) would contain 33.12 lbs. butterfat. At 50 cents a pound, this butterfat would cost $16.56. The more accurate method would be to weigh the cream rather than to estimate its weight by measure. Also, cream will seldom test exactly an even per cent fat, and there will be a slight variation in test from day to day even under the best conditions.

The cost of manufacturing cottage cheese is influenced largely by the volume of business. The U. S. Department of Agriculture estimated that a few years ago the cost of manufacture would be approximately one dollar a thousand pounds skimmilk on the handling of 40,000 to 70,000 lbs. skimmilk each month. The cost is figured on the basis of pounds milk because of the variation in the yield of cheese. Figured on the basis of a yield of 16 lbs. cheese to 100 lbs. milk, the cost of manufacture would be a trifle over six-tenths of a cent a pound. This does not include the cost of the package in which sold, the selling cost, or the cream which may be added; it merely covers the cost of the cheese delivered from the vat. If a larger volume of milk is handled the cost would be reduced, while an increase in cost would occur with a smaller volume. When only a small quantity of cheese is made, the regular creamery force could do the work without additional labor cost. This would reduce the cost of manufacture by 50 to 75 per cent, as labor is the important factor.

If we were to assume that the cost of manufacturing cottage cheese, including package, selling, and losses, was a cent a pound and the yield was 16 lbs. per hundred pounds skimmilk, the creamery might be able to pay 48 cents a hundred for skimmilk. It is quite probable, however, that even were the wholesale price to remain stationary, there would be times when the output could not be sold and the resulting losses would bring the cost of that actually sold to over a cent a pound.

Why Sweet Clover Pasture Failed

HOARD'S DAIRYMAN:—On page 171 of Hoard's Dairyman was shown a sweet clover pasture of 26 acres that, after furnishing pasture for 29 cows for seven weeks, was eaten close to the ground and had practically stopped growing. The theory was advanced that it was because it was yellow sweet clover in place of white sweet clover.

We have a field of white sweet clover which was pastured this summer. On part of the field the clover has disappearad almost completely long ago. On the other part which was given a coat of manure last winter, some clover is still growing. The reason in this case was the cold, backward season. If cattle could have been removed for awhile and the clover given a chance, the results would probably have been different. Next season we have a five-acre field to use as an alternate if the probabilities are for a recurrence of the past inclement season.

Wisconsin. A. L. GREENGO.

Cheat in Rye

I am sending you under separate cover a small sample of grass that grows with rye very nicely which I do not know the name of. Maybe you do. I have tried it out and it is not objectionable. At present I have three cows which are eating the second crop of grass and I have threshed out some of the rye and I feed some of it with the fleshy green stuff and they seem to like it.

Oxford, N. Y. E. P. B.

The grasses included with the rye in the package sent me are specimens of bromus secalinus, commonly called cheat or chess. It grows very often in fields of winter grain, such as rye or winter wheat, when the land is not fully occupied by the crop. You will remember that this has led, in times past, to farmers believing that the witches turned their wheat to cheat. That I think is where it gets its name. It is troublesome in the winter grain because it is difficult to remove entirely by cleaning. It shatters badly also and if the crop gets ripe it may re-seed itself so that it stays in the land for a long time. It is an annual. If it can be kept from seeding it will soon kill out. Thoroughly cleaned seed grain, the full occupation of the land by the grain crop, and cutting before the cheat ripens is the proper method of eradication. ANDREW BOSS.

Minnesota Experiment Station.

Alfalfa—Straw Sandwich

Somewhere I read that late cuttings of leguminous hays that would be difficult to cure properly have been stacked green in alternate layers with clean straw. Hay staked in this manner came out in a yellow or brownish color but with leaves intact and was relished by stock.

Can you please tell me whether or not it would be an economical undertaking here in the East where an abundance of clean straw is available? Is there record of it having been tried with results? Could it not be used as a substitute for alfalfa for test cows where the latter is prohibitive in price?

Lenox, Mass. R. W. R.

What you refer to by alternating layers of green alfalfa or clover and clean straw, is what has been known sometime back as the alfalfa-straw sandwich. This subject was under discussion six or seven years ago and reports from various places, where this plan had been tried out, were quite favorable. However, the practice has not become general in any sense of the word. It seems to have originated in Oregon. We have not had any experience in trying out this method of handling hay, but I am of the opinion that it would prove a rather inconvenient and expensive way of endeavoring to cure alfalfa. We have had, and are having here in the Middle West, a great deal of fall and summer rain, making it exceedingly difficult to cure alfalfa. This moisture, together with the low temperatures, results in the hay lying in the swath for two days or more without any very appreciable drying. These conditions are rather discouraging but, where alfalfa is stacked outside, I think it can be stored while in a rather green condition with the prospect of getting very good hay.

I noticed recently my brother hauling in alfalfa hay to the stack which was so green that it caused difficulty with the side delivery and hay loader. Rest assured that this hay was not moist with any external water from rain or dew. It had been rained on but the external moisture was completely dried off. This appears to be very important because it seems as if the external moisture causes severe molding and dangerous heating. There is no question but that this green hay will heat in the stack and when it is taken out next winter it will be for the most part brown in color and will have a pleasant aroma which evidently gives it a remarkable palatability. There is no question but that the feeding value of this hay is reduced by the extreme heating process but this loss may well be made up for in the improved palatability of the hay.

I doubt very much that the alfalfa-straw sandwich plan of handling rather green alfalfa hay will tend to increase the feeding value and palatability of the straw sufficiently to secure any noteworthy results in feeding the straw portion of this sandwich. I suppose if one would pour molasses on straw it would be readily eaten by cattle. The molasses itself would have some feeding value, but the straw would be very low in feed even with this treatment. There is not a great deal of information available on this plan of storing alternate layers of alfalfa hay and straw. The reason for this is the fact that generally this plan is not practical. Usually, the third crop of alfalfa is cut and cured in the field without a great deal of difficulty. Very often, straw is not available on the farm until after the third crop of alfalfa has been cut. Furthermore, late fall cutting of alfalfa and clovers is harmful from the standpoint of their permanence. Alfalfa, especially, needs a fall growth of eight or ten inches to withstand the winter weather.

L. F. GRABER.

Wisconsin College of Agriculture.

Milking the Reluctant Cow by Machine

I see different things about milking machines, but I never saw anything like I would like to know. In Aug. 29th issue it tells about milking machine teat cups. Now I have a milking machine with rubber lined teat cups and it works fine, but I have four cows in a herd of 20 head that hold their milk by machine milking. Is there any way to get the milk by milking machine from those cows that hold their milk? I would like to find out. These cows are all easy milkers and we get their milk easy when milking by hand, and have tried a few ways to get it but didn't succeed. We're using our machine since March and at first we didn't have trouble with our cows. It just started a few weeks ago.

Wisconsin. J. J. D.

This correspondent is directing his question at the heart of the whole milking machine problem. "Is there any way to get the milk by machine milking from those cows that hold their milk?"

There is no way by which this milk can be forced from the cow. It may be coaxed by kindness, but if the cow wills to hold up the milk, no machine can extract it and no human being can extract it by milking by hand. This is one principle that many do not understand, and this is one reason why some milking machines are not operated successfully.

The correspondent says that his cows are all easy milkers. This condition may contribute to the involved difficulty. The chances are that time is not given for the cows to give down their milk fully before the machine is put in operation. If the machine is thus put in operation on the cow that milks easy, the machine will draw the milk faster than the milk is given down. On this account the suction or vacuum is applied directly on the tissue of the internal parts of the cow's udder, instead of directly on the milk. When this happens, most cows are sensitive and under such conditions refuse to give down their milk. This condition is more likely to come about with easy milkers than it is with cows that milk rather hard

The correspondent further states that when the machine was first used in the month of March, no difficulty of this kind was experienced. This was undoubtedly due to the fact that the cows were then heavy milkers. They gave down their milk fully and quickly. Now when pastures are short, flies are troublesome, and the period of lactation has advanced considerably, the same cows produce less milk. There are many cows which are very slow to give down their milk when milked by hand under such conditions, and they have to be coaxed considerably. Cows giving a small quantity of milk should be coaxed to give down their milk before the machine is attached. If the milker knows the cow, he can easily ascertain this by the warmth and condition of the cow's udder. If the milking machine is attached to a cow that gives a very small quantity of milk before the milk is given down, then the difficulty of holding up the milk may result. C. LARSEN.

South Dakota College of Agriculture.

UNION CARBIDE

makes washday a holiday



FIRST the water-heating. The Carbide-gas water heater delivers hot water a few minutes after it is lighted.

Then for cooking on washday. Time is valuable and much of it is saved by the convenience of a Carbide-gas stove.

And finally for ironing. The Carbide-gas iron saves many steps and minutes, by making it unnecessary to change irons. It insures better ironing because it maintains an even temperature.

Thus Union Carbide gas makes washday's tasks lighter, and when evening comes wives and daughters are not too tired to sit under the Carbide-gas light in the living-room, and sew or read.

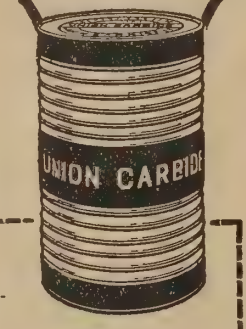
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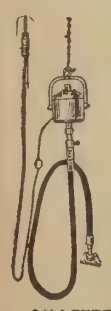
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Hoard's Dairyman, Fort Atkinson, Wisc.

Canadian Dairy Notes

F. E. ELLIS, ONTARIO

THE biggest new thing in Canadian dairying is the attempt now being made to form a province wide dairy pool in Alberta. Last year the three prairie provinces of Canada, with a wheat crop of approximately 500,000,000 bushels to market, each attempted to form a wheat pool to handle the crop for the producers. The attempt was successful only in Alberta. Not only did the pool handle a large part of the wheat crop but the net price to the producers, just announced, is several cents a bushel higher than was realized by those growers who sold through the regular channels of trade. Probably the success of the wheat pool last year has encouraged dairy farmers to attempt a dairy pool this year. The proposal first came before a meeting of the Alberta Dairymen's Association but was voted down, principally, it is said, through the opposition of the manufacturing interests which were largely represented. The project was not dropped, however, and on August 1 a meeting of representative dairymen was called at Red Deer and the subject discussed from all angles. At this meeting it was unanimously decided to appoint a provincial board "for the purpose of organizing a provincial pool for the marketing of dairy products on the contract plan." A provisional board of seven members was appointed.

The promoters of the proposed pool recognize the complexity of the problems involved, with the frequently conflicting interests of the city and factory producers. It was also recognized that the province has an advantage for pool marketing in that the surplus over home requirements is made almost altogether into butter and that this butter is all sold on distant markets. Almost from the inception of the movement there has been a difference of opinion as to how contracts should be drafted. The representatives of the unorganized districts favor a direct method of contract between the producer and the central selling agency, while those representing districts in which local co-operative pools are already in operation, usually centering around a co-operative creamery, are unwilling to give up a local plan already tried for a central control as yet untried. It is the old problem of central versus federated control of co-operative organization. It is probable that the final documents drawn will provide for a direct contract with the producers of unorganized districts and a cross contract between the central organization and the local pools that will bring about close, province-wide co-operation and still maintain the entity of existing machinery that has been built up locally.

At time of writing, this is as far as the pool has progressed. The people of the West have a way of acting quickly, however, and the pool may be in operation in a comparatively short time. Such a move would have little hope of success in the older dairy districts of eastern Canada without months, and perhaps years, of consideration. The cheese pool that was attempted in Ontario a year ago was a failure. But the West is not afraid of new methods.

⚜

The fall fairs are again with us and the feature of the creamery butter sections of all the exhibitions of first importance is the sweep that western Canada creameries are making of awards. This has been true for several years past and we are getting accustomed to seeing a lot of prize money going to the west of the Great Lakes. Take Toronto as an example: At this fair over 75 per cent of all prize money in the creamery sections was won by prairie creameries. One first place went to a Nova Scotia creamery, Ontario got six minor placings, including a third, while the provinces of Manitoba, Saskatchewan, and Alberta captured 29 of the 36 regular prizes and all the specials. Why are the prairie creameries so successful year after year?

Primarily, prairie quality is a matter of economic necessity. The prairies have a large surplus of butter that has to be marketed in competition with the world. They started to make good butter only when New Zealand competition drove an inferior product off the British Columbia market. Now they have to compete with both New Zealand and Denmark on the British market. As a start toward improved quality, government butter grading, on a voluntary plan, was adopted. Then operators of creameries started to pay farmers for cream according to its grade. This resulted in a wonderful improvement in the raw product. The three provinces are now the largest block of territory in the world that buy cream and sell butter entirely according to government grades. As a result of paying both the farmer and the buttermaker for superior quality, the West now commands a strong position for its butter on international markets and carloads are shipped regularly to the most discriminating United States markets. It is a great triumph for grading. Creamerymen in Ontario, on the other hand, have a domestic market that takes practically all their output, a market that has become accustomed to the grade of butter that has been manufactured in the past, and they are not under the necessity of maintaining expert quality. When such quality is required, it will be produced.

⚜

The county herd plan has had its first try-out at Canadian fairs this fall. At our large fairs, as in the United States, the showing in all dairy breeds has been practically monopolized by breeders with large herds and considerable means. The small breeder of limited means has found it more and more difficult to remain in the running with methods of fitting and showing ever becoming more expensive. The county herd plan, the equivalent of the state herds at the National Dairy Show, seems to be an antidote to this condition. County effort can bring out representatives of herds that would never get beyond the local show otherwise. At Toronto there were county herds in the Guernsey, Ayrshire, Jersey, and Holstein breeds with prizes for each of $100, $75, and $50. At least 20 new exhibitors were out as a result. Each herd consisted of six animals, not more than two from any one herd. At the Ottawa fair the plan was used more extensively and in Holsteins alone 25 new exhibitors were brought into the ring. The big breeders have co-operated in this movement and, in not a few cases, the extra entries from their counties were taken to the fairs and showed by them in the name of the owners.

⚜

Prices have been anything but satisfactory to producers the past summer. In May and June cheese factories were paying as low as 98c a hundred pounds for the milk of average test. The powder factories were

only a few cents in advance of this; in fact, when the feeding value of the whey is taken into consideration, the cheese factories had the advantage. In July and August the markets improved and $1.35 and up was paid at factories whose cheese graded well. At time of writing the cheese market is not as strong as it was. Powder factories are paying $1.40 and up for 3.5% milk. Practically all city producers had to take heavy cuts in summer prices. The Toronto distributers paid as little as $1.33 a cwt. at country shipping points in June and $1.48 in July. Last winter the price was over $2 a cwt. Creameries in Ontario are now paying 34 cents per pound fat and the price has ranged from 30 to 33 cents all summer. These prices are but little in advance of pre-war levels.

Danish Dairy Advance

Receipts for Danish dairy products during 1923 were considerably greater than during any previous year and demonstrates again that the dairy industry is the most important industry in the country, states American Consul General Marion Letcher in a report received in the Department of Commerce. The number of cows increased during the year by about 38,000 over the 1922 number. At the close of 1923 there were 1,349,000 milk cows in Denmark, including Southern Jutland, which was acquired by Denmark in 1920. It is evident that, compared with pre-war conditions, Denmark has not as many milk cows as in 1914.

In addition to domestic feedstuffs used in the dairy industry, Denmark imported large quantities of fodder cake meals. The imports of oil cakes amounted to 1,270,000,000 pounds compared with 860,000,000 pounds in 1922. The imports of oil cake meal and wheat bran increased as well.

Both the winter and summer milk production was unusually large in 1923 and the quality of milk supplied by the various dairies was, generally speaking, very good. The quality of Danish butter was also very satisfactory and it can be said safely that Danish butter has continued to improve from year to year, due in large measure to tests and exhibitions.

There was considerable increase in Denmark's butter exports and 1923 showed the largest exports in the history of the dairy industry. The following table shows the countries which purchased Danish butter.

Exports of Butter. (In Casks and Boxes)

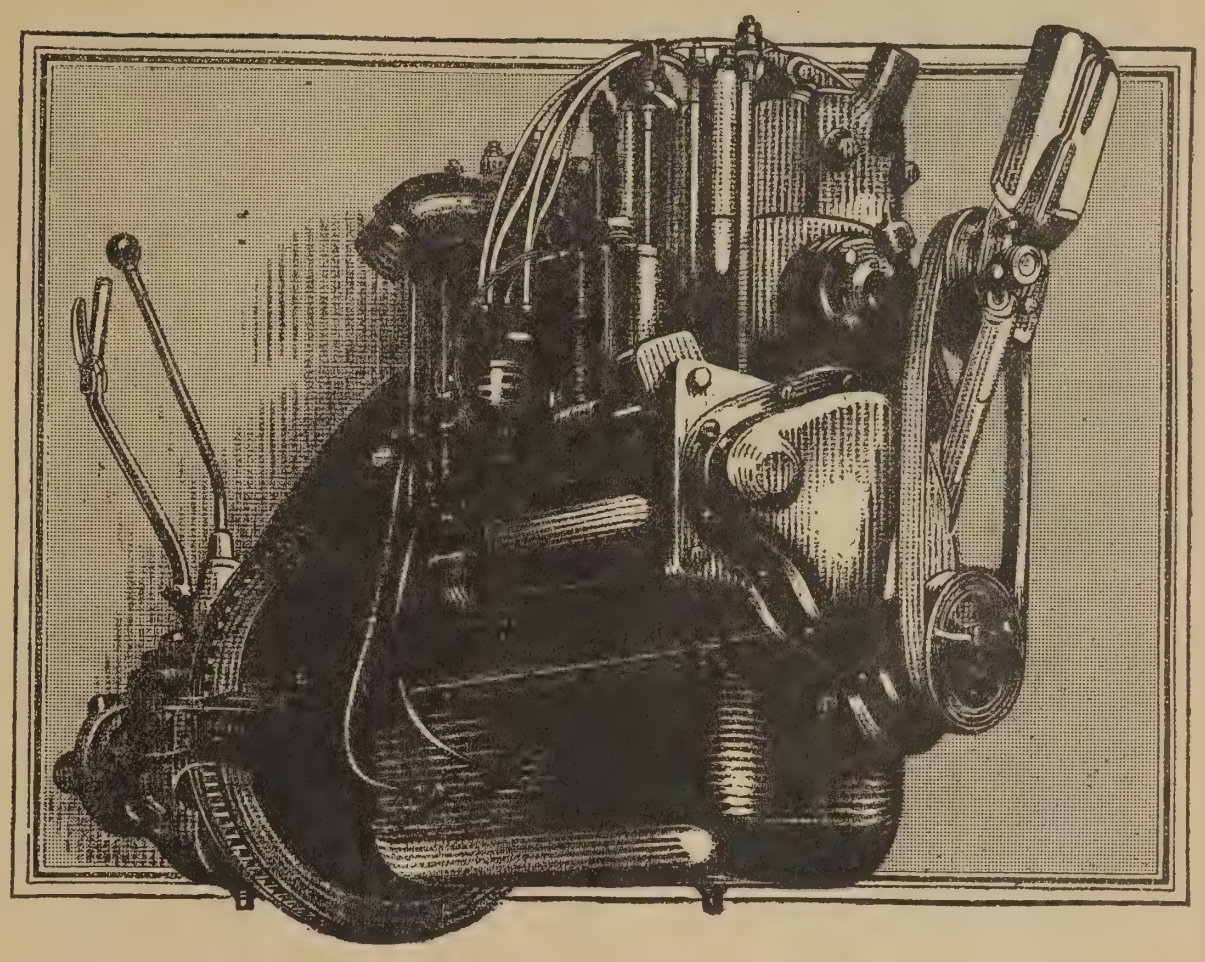
	1921	1922	1923
Germany	1,200,000	513,230	3,413,400
Great Britain	135,176,000	147,680,000	203,284,600
Norway	8,092,000	6,734,600	5,306,700
Sweden	9,144,000	1,265,000	300,700
Belgium	7,423,500	16,027,400	4,052,500
France	9,943,200	13,828,300	3,091,300
Holland	1,712,500	253,300	175,700
Switzerland	17,020,000	12,487,500	9,037,300
U. S.	11,340,000	2,753,700	8,620,200
Czechoslovakia		6,225,300	5,336,000

The Danish cheese industry experienced a better year in 1923 than in 1922. The entire domestic production in 1923 was estimated at about 60,000,000 to 75,000,000 pounds or about the same as in 1922. The cheese export was not, however, as large as in 1922, but the domestic consumption was much greater.

The complete report on the Danish dairy industry in 1923 may be had upon application to the Foodstuffs Division, U. S. Department of Commerce, Washington, D. C.

I find the great thing is this world is not so much where we stand as in what direction we are moving.—O. W. HOLMES.

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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Kimble Comes Back

HOARD'S DAIRYMAN:—Mr. R. T. S. of Illinois, in criticising my article regarding solutions for the farmer's problem, does not attack the main points of discussion but merely questions some of the argument which I offered in support of my statement that our government is committed to paternalism. Whether he chooses to call the rate section of the present transportation act a guarantee of profit or not will not in any way affect the truth of my statement that we are so committed as a nation. We have the Adamson law for labor, the Federal Reserve Act for the bankers, the Cummins-Esch Transportation Act for the railroads, as well as different tariff acts for the manufacturers. I take the position that we are therefore entitled to a real farm act for the farmers.

My statements regarding the reclamation of western lands was made to show middle western farmers and farm interests generally that we of the Middle West are not exactly the whole agricultural world to be considered and that we are destined to be a great export nation for an indeterminate number of years. I did not advocate any present extension of land reclamation and the unsalable nature of irrigation bonds during the past 10 years has entirely shut down any new work in that field.

My plan for solving the farmer's problem and for bringing immediate relief to all whose interests center in agriculture was published in Hoard's Dairyman last spring and in three other farm journals. It has been in the hands of congressmen during last session of congress and parts of it were used in forming the proposed agricultural bills.

It is in the cost of production that the great difficulty arises in dealing with the farm problem. The greatest single factor in determining production costs is beyond control of man.

Real farm legislation must recognize this as the outstanding fact to be met. There have been thousands of industrial experts who have advocated carrying their pet industrial schemes and systems into the farming field. They all fail for lack of proper consideration of the above mentioned fact, that is, the cost of production cannot be told within 100 per cent prior to harvest. The much boomed dairy industry corresponds more closely to other industries than do other lines of farming because it is to a greater extent a turnover proposition in which the profits are found in the margin between feed cost and market value of products. It is to that extent a mercantile venture.

It is very unfortunate that all men don't see the farming problem alike and there is much danger in drawing conclusions based on a section of this country rather than all of it.

Minnesota. HOWARD KIMBLE.

False Reasoning

HOARD'S DAIRYMAN:—I have read with interest the communication by James H. Birchard in your recent O. B. & B. columns. It seems strange how much false reasoning we have in these times. He states that school children, when given milk, have done better in their studies, and from this he reasons that their parents have not had sufficient funds for buying them the food they need to nourish them properly. This man forgets that there is quite as high a percentage of undernourished children among the rich people as among the poor. It isn't a question of dollars. It is a question of information regarding the proper diet for growing boys and girls.

He then complains regarding the number of dollars we earn a day and the amount that we get back. It seems to me that there is no way of determining just how much we earn. This can be said, that we are living in the most prosperous nation in the world and I am sometimes led to believe that we find more fault with our conditions than with any other nation in the world. It would seem that about all there is to American life is fault finding.

I read in the papers that carpenters are getting $1.25 an hour, plasterers $1.50, and bricklayers about the same. If these people aren't getting a share of the wealth, who is? If they can't buy milk for their children, what's the matter with them?

What has freight got to do with over-supply or under-supply of food? It seems to me that in some respects high freight rates are a good thing. They teach communities to raise the material that they need or at least those things which can be raised. It has become the habit of many consumers to send long distances for their food products when in their own community these same products could be raised and the farmers would be better off if they would diversify. The South, for instance, buys millions of dollars worth of canned goods from the North. If the freight rates were so high that it couldn't afford to buy them, it would raise these food products. The leaders recognize this and are putting on compaigns to get the farmers of the South to raise the products they consume.

It seems to me it is the height of foolishness to blame all our difficulties on the railroads when without them we could not have our present civilization. The wages of railroad men have been doubled the past fifteen years and freight rates are only about 50 per cent higher. No railroad system in the world carries freight so cheap per ton per mile as those in the United States.

To say that we haven't an overproduction is to ignore facts. If we would have had less wheat, less hogs, less beef, and less of many other products, the farmers would be getting a fair price for their farm products.

To intimate that the laborer is unable to buy sufficient food to fill his stomach and those of his children, is ridiculous, for they have money to buy automobiles, attend moving picture shows, and dress in the height of style.

Minnesota. R. D.

A doctor was called in to see a negro who was down with influenza.

"What's I gwine to gib him?" asked the wife.

"Give him whiskey," the physician responded.

"How much do it cost?"

When the doctor named the price of good whiskey per quart the wife remarked:

"I can bury him cheaper dan dat."
—Everybody's Mazagine.

Feed Did It

That cash returns from ordinary grade dairy cows can be tremendously increased by feeding better home grown rations has been demonstrated by the dairy husbandry division of the University of Minnesota.

One year ago the division purchased four grade cows from a member of a cow testing association. Records had been kept of the feed consumed and the milk and fat produced in two years by each cow. The cows had received good care but had not been fed a suitable ration.

The original owner pastured the cows six months of the year and fed a winter ration of 23 pounds of timothy hay each day per cow and a grain mixture composed of bran, middlings, Molo Feed, and oil meal, five pounds to each cow daily. All materials in the mixture were purchased. Going on test at University Farm in October, 1923, the cows were fed a home grown ration only, consisting of corn silage and alfalfa hay for roughage, and oats, corn, and barley mixed for grain. The pasture period was five months.

On the original owner's farm the average milk produced per cow was 4,662 pounds in a year. The university men by feeding a home grown protein ration increased production to 6,375 pounds or 36.7 per cent. The average fat per cow was raised from 182 pounds to 259 pounds or 42.3 per cent. The value of production per cow increased from $87.36 to $124.32 or 42.3 per cent. The average cost of the university ration was $61.42 per cow each year as against the average feed bill of the original owner of $49.46, but the university's system of feeding brought returns over feed cost per cow of $62.90 as against the original owner's return of $37.90, a gain of 60 per cent. The experiment with the cows will be conducted at University Farm another year.—Minnesota College of Agriculture.

Russian Butter Exports

According to latest reliable estimates in Riga, butter exports from Russia in the present season will amount to about 52,580,000 pounds against about 15,190,000 pounds in 1923, states American Trade Commissioner C. J. Mayer in a report received in the Department of Commerce. Of the four principal Russian dairy organizations exporting butter at the present time (Selskosoyuz, Chlieboprodukt, Sibtorg and Centrosoyuz), Selskosoyuz is doing the largest business. This organization has contracted with a British concern, against an advance of 50,000 pounds sterling, to furnish at least 5,840,000 pounds of butter this season. Its total export for 1924, it is estimated, will amount to 15,190,000 to 16,000,000 pounds, principally to England, but also some to Esthonia and other countries. Sibtorg is expected to export from 8,760,000 to 9,000,000 pounds, and more than half of this has been contracted for by an English firm. The butter business of Chliebroprodukt is practically entirely handled by a Danish-British concern. This organization expects to export from 11,685,000 to 14,000,000 pounds of butter during the current season.

Skillful Shooting

Officer (to recruit): Goodness gracious! Man, where are all your shots going? Every one has missed the target.

Soldier (nervously): I don't know, sir. They left here all right.—Everybody's Magazine.

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The Value of a Sire

Just to have a pure-bred sire heading a herd isn't enough. It should be a good sire. Some figures, recently received from Rock River Farm, Illinois, well illustrate the value of such a sire. They have there at the head of their herd of registered Holsteins the bull, Sir Johanna Fayne Segis Pontiac. The records of his first five daughters to be tested and of their dams are shown in the accompanying table.

The records were all made on the same farm so they make a very fair comparison.

	Age	Milk lbs.	Fat lbs.
Dams			
K. S. P. Bessie	4-11-0	16025.3	518.33
Nettie Leola De Kol	5-10-15	17339.7	493.86
Berta Pontiac Ormsby Lass	3- 2-8	12821.4	432.25
McCormick Burke Pontiac Zulu	2- -17	12049.3	383.74
Nagawicka De Kol 5th	5- 2-22	16225.0	602.56
	19-33-63	74460.7	2430.74
Average	4- 4-18	14892.1	486.17
Daughters			
Johanna Pontiac Bessie Fayne	2-10-4	20985.8	689.02
Leola De Kol Fayne	2- 8-18	19381.9	737.77
Johanna Berta Ormsby Lass	3- 1-14	21543.8	763.20
R. R. Johanna Burke Zulu	2- 5-15	18450.4	599.42
R. R. Johanna Nagawicka De Kol	2- 1-28	17989.7	617.57
	11-25-79	98351.6	3406.98
Average	2- 7-27	19670.3	681.41

Increase over dams—Milk, 32 per cent; butter, 40 per cent.

"What is a 'wooden wedding', Jack? Do you know?" Mary said.

"Of course!" her brother replied. "It's two Poles getting wed!"—Good Hardware.

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Coming Events

Sept. 27-Oct. 4—National Dairy Show, Milwaukee, Wis.

Oct. 17 and 18—International Association of Dairy and Milk Inspectors at Detroit, Michigan.

Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition. Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

BERNARD H. RAWL

IT becomes our sad duty to announce the death of B. H. Rawl who for more than twenty years devoted himself to the development of the dairy industry of the United States. He was born at Lexington, S. C., May 2, 1876; was graduated from Clemson College in 1900, instructor in animal husbandry and dairying at the Clemson Agricultural College from 1902 to 1905; in charge of dairy farming investigations, U. S. Dairy Division, 1905 to 1909; Chief of U. S. Dairy Division from 1909 to 1921 and from 1918 to 1921 he was also assistant chief of the U. S. Bureau of Animal Industry. For the past three years he has been assistant manager of the Golden State Milk Products Co. of San Francisco, Calif. His untimely death occurred at Berkeley, Calif., September 23rd, and he will be buried at Petersburg, Va.



B. H. RAWL

In the twenty-four years which elapsed from the time of his graduation from college to that of his death, Mr. Rawl devoted twenty-one years in state and federal service and only a little over three years to commercial work. He was admirably adapted to public work, for he had a keen understanding of the things which should be done to help develop the dairy industry and he had a high sense of justice as to what the consumer was entitled to receive from the producer. It was his belief that the producer should have a fair compensation for his product and that the consumer was entitled to a wholesome, well prepared product. Not only did Mr. Rawl understand the various subjects which should be investigated, but he had the faculty of picking men capable of carrying out the experiments which he instituted as Chief of the U. S. Dairy Division.

He came to the Dairy Division for the purpose of carrying on dairy farm investigational work and this he did with distinction to himself which lead to his appointment as Chief of the Division. In this position he established many investigations and he lived to see some of them carried to the point of being commercially valuable.

Sweet cream butter was one of the first experiments to which he directed his attention and in the past few years this product has become a large factor in the butter market. It promises to be still larger. He selected scientists to direct their attention to the study of improved methods of manufacturing both Swiss and Roquefort cheeses. Splendid progress has been made in perfecting the processes of manufacturing these two kinds of cheeses.

He was not satisfied with the laboratory results in experimenting in sweet cream butter and Roquefort and Swiss cheeses, but he saw the necessity of establishing an institution where all these products could be made on a large scale and under conditions similar to those under which creameries and cheese factories must operate. A plant of this character was established some years ago at Grove City, Pa., and from that time to this investigations have been conducted to improve the processes in the manufacture of both butter and cheese.

Mr. Rawl was not content to devote himself only to the problems of manufacturing dairy products and improving the quality of milk, but was instrumental in establishing a farm where various experiments in the field, in feeding cattle, and in breeding have been inaugurated. Perhaps the best and most extensive experiment pertains to breeding. Many years will elapse before any definite conclusions can be drawn from this experiment, but he has laid a foundation which will in time unfold more knowledge regarding the principles of breeding.

We cannot relate here in detail all the work Mr. Rawl did, but it can be said that with his broad conception of the dairy industry, its needs, and his ability to choose men to serve under him, he has laid a firm foundation upon which will be carried on investigations that will contribute bountifully and generously to its welfare. He never lost interest in the progress and work of the U. S. Dairy Division and devoted himself, with his friends and associates, to getting it raised to a Bureau of Dairying. It was his deep conviction that the dairy industry was of sufficient magnitude and importance to deserve a larger representation in the U. S. Department of Agriculture than was afforded by a Division.

Back of his success was a sincere desire to do right and to render an honest service to humanity. He had the confidence and support of the leading dairymen and dairy scientists of the country. This was gained through hard work, loyal and capable service. One of his fine traits of character was expressed in his strong desire to see young men succeed and he gave much of his time in helping those who served under him.

Though his life was short, he lived long enough to make a worthy and lasting contribution to the development of the dairy industry. He gave the best that was in him and he was faithful in all things and to all men.

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

WASHINGTON, D. C., SEPT. 23—The concentration of attention by the national organization of manufacturers of oleomargarine on the referendum to be held Election Day in Washington and Oregon on the oleomargarine laws enacted in those states last year indicates how dangerous to oleomargarine—that is, how satisfactory to dairy interests those laws are.

The general purport of the Washington and the Oregon laws are to require oleomargarine manufacturers to make their product without mixing in any milk or butter. That is, the meat in the coconut which has stirred up the whole national oleomargarine industry. Such a law prevents making oleomargarine to smell or taste like butter. They may mix water with it to give it the amount of moisture which it absorbs from the milk, when milk is used, but water does not give it the dairy flavor. Just what would happen should they try to use lactic acid has not been seriously considered.

⚜

The production of oleomargarine in the United States, as indicated by the taxes paid, increased for the fiscal year ending June 30, 1924, over the previous year sufficiently to swell the taxes from $507,707 to $570,605 for colored oleomargarine; and from $678,890 to $918,318 for uncolored. There is also an increase of about $186,000 in the taxes paid by manufacturers and dealers.

⚜

A change is announced in the Washington office of the American Farm Bureau Federation caused by the resignation of Grey Silver, to take full time charge of the work of the Grain Marketing Company organized recently in Chicago, of which he has been elected president. Mr Silver will spend some time in Washington and has been named by the Farm Bureau as "Counselor" to the Washington representative. His former assistant, Edwy B. Reid, has been named as Washington representative. Mr. Reid was formerly chief of the Division of Publications of the U. S. Department of Agriculture.

Sale Announcements

Oct 15—Holsteins. C. S. Weldy, Wakarusa Indiana.

Oct. 30-31—Holstein Dispersal Sale. Croze Dairy Farm, Upland, Pa.

Nov. 12—Holsteins. District Holstein Sale Berea, Ohio. Under management Ohio Holstein-Friesian Association.

Nov. 18—Holsteins. Annual Quality Sale Waukesha County Holstein-Friesian Breeders Ass'n. W. L. Baird, Sec'y., Waukesha, Wis.

Nov. 24—Walworth Co. Holstein Bull Sale Elkhorn, Wis. Ben Bachhuber, Sec.

Nov. 25—Holsteins. Dispersal Sale of E H. & R. C. Walker at Du Quoin State Fai Grounds, Du Quoin, Ill.

Nov. 26—Guernseys. The LaCrosse Count Guernsey Breeders' Annual Fall Sale of Reg istered and Grade Guernseys at West Salem Wis. H. W. Griswold, Sale Manager.

Raising Dairy Calves on a Large Scale

A. WETTACH, IOWA

RAISING dairy calves that go into the herd of over 200 cows on the Fairfield Dairy's large farm is the work of Miss Ruth Francisco of New Jersey. For a number of years she has been doing this and has always had from 20 to 50 small calves that she was pail feeding.

This calf herd is on the home grounds about a half mile from the dairy barns. Here they have their barns and pastures. The calves are penned according to size and age. This is a help in feeding them and it is a precaution against the spread of disease as well. After the calves are six months old they are sent to pasture 20 miles away in the foot hills. Here they are kept through the summer and brought back to the dairy barns for the winter.

Miss Francisco is an expert herdswoman and has made records with her pure-bred Guernsey cows on official test. She is very enthusiastic about her work of managing the calves and her small herd of Guernseys. The success of calf raising depends on the caretaker and Miss Francisco certainly has a herd to be proud of.

The calves are nearly all high-grade Guernseys and Holsteins. A few pure-breds of both breeds are included. Since all of the milk produced on this farm is retailed in the near-by cities, the combination of Guernsey-Holstein milk is an ideal product. Only the best heifers are raised.

The demand for milk at a good price makes it out of the question to raise the calves on whole milk. Consequently the calves are taken from the cows when but a few days old. They are taught to drink without much trouble at this age. For several days the young calves are fed three times a day and any weak ones, four times.

Miss Francisco feeds each calf individually. The weaker and younger get more attention and are fed according to their strength and size. Rules will not always hold in feeding dairy calves—judgment, not rules, is her policy. There is more danger from overfeeding than underfeeding she believes. Some calves at a month require more than others several weeks older.

With such a large herd to feed there is a limit to the milk supply. All of the skimmilk and fresh milk from the dairy is brought out at each feeding. A milk can of hot water is also part of the feed. Both the water and milk are previously boiled by live steam.

From the time the calves are three weeks old they are fed on skimmilk substitutes. The few pure-breds are the exception and they get skimmilk until they are four or five months old. Miss Francisco feeds the Purdue Mixture of equal parts by weight of hominy feed, red dog flour, linseed oil meal, and blood meal in the form of a gruel. Corn meal will take the place of hominy meal. She mixes a small quantity at a time, enough for a feeding, and stirs in cold water to make a thick paste. Warm water is added to this at the rate of 4½ quarts to the pound of dry meal. The gruel is substituted in the calf milk, pound for pound of skimmilk until a complete change is made, which takes about a week. The calves get the gruel until they are five or six months old. Twenty pounds a day is the maximum amount any of them get.

The calves have access to grain and hay from the time they are ten days old. Miss Francisco feeds a mixture of corn meal, ground oats, and bran —frequently adding a little oil meal and salt. The hay is in a rack to keep them from wasting any by tramping.

From five to ten calves are staked out on the large lawn during the summer and moved each day. They are kept in at night; fed in the morning and taken out; and turned loose at feeding time in the evening. There is a grand rush for the barn as the calves are untied and the buckets are waiting for them as they reach their pens.

Water is a part of the feed and the calves are usually watered at noon unless the days are very hot. In such cases they are given a moderate amount in the morning and afternoon. Too much in the heat of the day may cause bad results.

Miss Francisco believes in accuracy in feeding her calves. The feed is all weighed or measured and the milk and substitutes are fed warm—95° being the temperature. Until she became accustomed to feeding the gruel and milk at this temperature she used a thermometer. Never does she feed a calf sour or cold milk—better to skip a feed and run no risk of scouring the calf.

Scouring is one of the worst and most common of calf ailments. Much of it can be prevented by sanitation, which is Miss Francisco's strong point. The calf buckets are scalded after each feeding and sunned during the day. The pens are kept clean and dry, and, if scouring does occur, it is usually from some other cause. Her recommendation for a calf that scours is to cut its feed in half and give it a dose of four tablespoons of castor oil in the milk. A weak calf should not get a feed cut, —give it an egg or four drops of formalin to each quart of liquid. "Every sickness is a setback. Keep them growing," is her advice.

The success of calf raising, especially on a large scale, depends on the caretaker, Miss Francisco believes, and she has been successful in raising several hundred dairy calves.



ALDEBARAN ANNABELLE

A record recently completed at the University of Wisconsin makes the heifer, Aldebaran Annabelle, a member of the University herd, the Ayrshire state champion senior two-year-old in the 300-day division. Her record is 11,546 pounds milk and 461.89 pounds fat.—R. S. HULCE, Wisconsin.

"Well, Sandy," said the laird, "you are getting very bent. Why don't you stand up straight like me, man?"

"Eh, man, do ye see that field o' corn over there?"

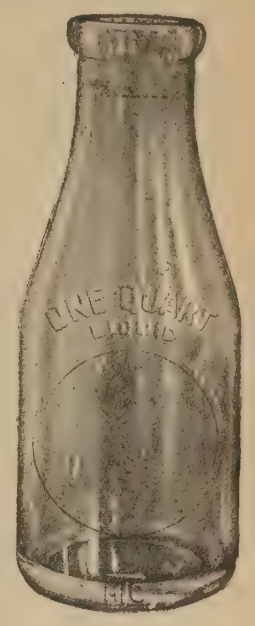
"I do," returned the laird.

"A' weel, ye'll notice that the full heads hang down, and the empty ones stand up."

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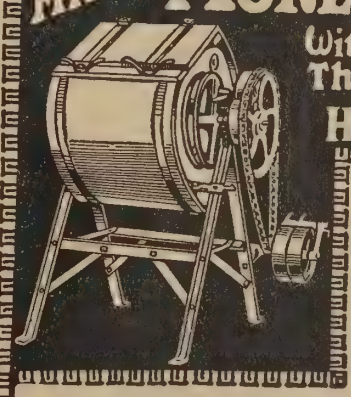
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These figures are taken from the record books of Inslee Bros., Windy Brow Farm, Newton, New Jersey.

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as the protein basis of her grain ration. Today she is still being fed BUFFALO. Throughout this ten-year period BUFFALO formed the bulk of her ration's protein at practically all times.

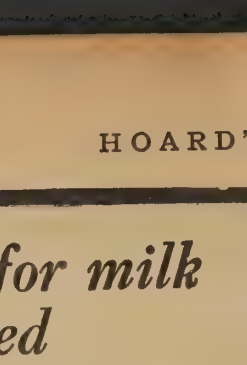
THE dairyman who wants heavy and consistent production of milk over long stretches of time without injuring in the least the health of his cows, should keep this 10-year record in mind. The cow who made it is an ordinary, good grade cow, such as you have in your own herd. What she has done your cows can do on the same good feeding.

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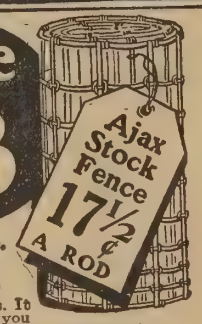


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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
N. H.	Contoocook	Aug.	R. H.	109.1	G. W. Colby
Mont.	Bitter Root	"	R. H.	72.0	Ford & Hollister
Iowa	Floyd Co. 1	"	G. H.	55.8	B. Lambert
"	Davenport	"	H.	69.6	Iowanna F'ms
Ida.	Ada Co.	"	R. H.	74.7	A. D. Soucie
Mo.	Mar.-Ralls	July	G. J.	65.1	S. P. Flowerree
Ind.	St. Joseph	Aug.	R. H.	71.7	L. Van Hess
"	Clark-Scott	"	G. J.	59.8	O. Erni
"	W. Hamilton	"	G. J.	70.5	B. C. Johnson
Mich.	Delta Co.	"	G. H.	55.2	W. Knaus
"	Leelanau	"	R. H.	89.1	R. Lautner
"	Monroe Co.	"	R. H.	57.2	E. H. Morris
"	Huron-Ubly	"	R. H.	62.1	W. Day
"	N. Allegan	"	R. H.	78.9	B. Ter Haar
"	Genesee 3	"	G. J.	76.8	F. D. Swan
Minn.	Pine Co.	"	G. H.	61.0	C. E. Carlson
Wis.	Ham.-Baldwin	"	G. G.	62.9	Mrs. M. Reitan
"	Lakefield	"	R. G.	64.4	J. Clausing
"	Leo.-Pel.-Tilleda	"	R. B. S.	65.6	F. Stefl
"	Arcadia	"	G. G.	49.4	Theurer Bros.
"	Spr. Green	"	G. G.	63.7	L. Lins
"	Cen. Monroe	"	G. G.	69.8	E. Baumbach
"	Mt. Hope-Lancaster	"	R. J.	71.9	C. J. Alt
"	Marion	"	R. H.	65.0	E. Fetzer
"	Superior	"		67.7	O. Schmidt

Association Notes by Testers

Bitter Root Valley, Mont.: One member completed his milk room equipment last month by installing a steam boiler and washing vat. One separator which was losing $20 was adjusted so that it is now losing less than $5. In August the cheese factory paid 34 cents per pound for fat, the creamery 37 cents. Milk retailed for 10 cents per quart.—R. Gaalaas.

Floyd County No. 1, Iowa: Few improvements have been made during August due to the busy season. Threshing is now nearly completed showing a very good grain crop. Ten farmers fed grain and the average production per cow of these ten herds was 34.5 lbs. fat compared with the average of 19.4 lbs. fat of the other 16 herds. The high herd consisting of 11 grade Holsteins, owned by J. Binger, produced an average of 37.2 lbs. fat. Market milk sold in August for $2.25 per cwt. The condensery paid $1.70, the ice cream plant $2.25. Milk retailed at 10 cents per quart.—J. B. Day.

Davenport, Iowa: August was unusually cool and pastures good, consequently production has not dropped much this month. Grain is high and all patrons are feeding it except five. Corn is $1.10 per bushel, oats 45 cents, bran $28.00 per ton, oil meal $45.00. Feed cost of producing 100 lbs. milk was 83 cents and 19 cents for one pound butterfat. Market milk sold for $2.20 per cwt. in August and retailed for 11 cents per quart.—T. E. Hotchkiss.

St. Joseph County, Indiana: A registered Guernsey two-year-old heifer, owned by John Roush, made 1,003 lbs. milk, 55.1 lbs. fat in August. Market milk sold for $2.65 per cwt. in August and retailed for 12 cents per quart.—E. E. Weiss.

Clark—Scott, Ind.: Nine herds averaged over 31 lbs. fat last month. Guy Daily had the high herd of 39.6 lbs. fat for 7 pure-bred Jerseys. The average of the 345 cows tested in this association was 539 lbs. milk, 27.6 lbs. fat; average feed cost $4.44; average profit, $8.46. Market milk sold for $2.39 per cwt. last month and retailed for 12 cents per quart. Fat brought 36 cents per pound in sour cream and 41 cents in sweet cream.—W. W. Barnett.

West Hamilton County, Ind.: Two separators were checked and found to be running at a loss. The condensery paid $1.70 per cwt. for 4 per cent milk, the creamery $2.00 in August.—T. D. Barclay.

Delta County, Mich.: In the county-wide T. B. eradication campaign being carried on in this county, four more association herds were tested last month. One herd was found clean. Three reactors were found and disposed of.—C. R. Olson.

Monroe County, Mich.: Most dairymen in this association send milk to the Detroit and Melrose creameries. The milk market is very dull at present. The creameries are giving the producers a heavy surplus. Market milk sold for $2.70 per cwt. in August. The creamery paid $1.85 per cwt. for milk. Milk retailed at 10 to 12 cents per quart.—L. A. Dexter.

Huron—Ubly, Mich.: Seven separators were tested. Two members started to weigh milk and ten fed grain on pasture. A fly spray mixture was made by the tester and distributed to the members. Market milk sold for $1.60 per cwt. in August. The creamery paid 37 to 40 cents per pound for fat.—C. M. Wagner.

North Allegan, Mich.: A total of 292 cows, 47 being dry, were tested last month. Bert Ter Haar's herd of 18 Holsteins, including one dry cow, was high for both milk and fat production, having an average of 1,217 lbs. milk, 44.4 lbs. fat. Owing to the exceedingly high price of grain during August, eleven out of 27 members did not feed grain with pasture. Those who did feed grain with pasture realized an average of $1.81 more per cow above feed cost than those who did not feed grain, even with pasture better than it has been for years. One faulty separator was found. Market milk sold for $2.00 to $2.60 per cwt. last month.—C. L. Fleming.

Spring Green, Wis.: Since the reorganization of this association in March, six herds have been tuberculin tested and no reactors found. Cheese factories in this section paid $1.45 per cwt. for milk and 42c per pound for fat in August.—A. F. Clump.

Central Monroe, Wis.: Many members are feeding minerals. One member seeded 8 acres to sweet clover for pasture. The creamery paid 44c per pound for fat last month.—V. Sorenson.

Mt. Hope—Lancaster, Wis.: A cow testing association exhibit being shown at the county fair features one high and one comparatively low producer. Twelve members fed grain to cows on pasture. In August the cheese factory paid 34 to 40 cents per pound for fat; the creamery 40c. Milk retailed for 10c per quart.—B. J. Paulson.

Medford, Wis.: The average production of 313 cows which finished a full year's work in this association was 6,343 lbs. milk, 250.2 lbs. fat. One hundred seven cows produced over 300 lbs. fat. Otto Lueck has highest producer for the year. His Holstein cow produced 13,371 lbs. milk, 501.2 lbs. fat. Wm. Nihiba has the highest herd record for the year of 9,832 lbs. milk, 388.6 lbs. fat.—N. Hansen.

Centre Co., Pa.: During the past year there were 21 members in this association with 291 cows, the average return per cow was 6,257 lbs. milk, 244.6 lbs. fat. The high cow, a registered Holstein owned by J. J. Markle, has a year's production of 10,616 lbs. milk, 523 lbs. fat. The highest producing herd, with an average of 9.58 cows, owned by A. C. Hartle & Bros., produced an average of 10,447 lbs. milk, 344.2 lbs. fat. A close second in average fat production was the herd owned by W. E. Weight. This herd with 12.67 cows

produced an average of 9,263 lbs. milk, 344 lbs. fat. Williard Straw was the tester.—I. O. Sidelmann.

July Testing in Virginia

During July there were thirteen active cow testing associations with 246 herds and 6,064 cows reported on test. Of this total 489 cows produced over 40 lbs. butterfat, and 125 over 50 lbs. of butterfat.

The high cow for the month was Aris Pietje Burke Lass, a 6-year-old pure-bred Holstein that freshened April 26, 1924, owned by Miniborya Farm, a member of the Henrico Association. Her record for the month was 2,373 lbs. of milk and 80.6 lbs. of butterfat. Of the ten high cows six were pure-bred or grade Holsteins, three were pure-bred or grade Guernseys, and one was a grade Jersey.

The high herd for the month was the herd of ten pure-bred Holsteins owned by H. L. Butler and Sons, members of the Culpeper Association. This herd averaged 969 lbs. of milk and 38.3 lbs. of butterfat. Of the ten high herds, six were Holsteins, three were Jerseys, and one was a Guernsey herd.

The average production of all cows, including 694 dry cows, was 574 lbs. of milk and 23.3 lbs. of butterfat. The Orange County Association had the highest production in both milk and butterfat. The 487 cows in this association, including 26 dry cows, averaged 620 lbs. of milk and 26.5 lbs. of butterfat.

There was considerable decrease in the average production of all cows, in the production of the high herds, and the number of Honor Roll cows for the month. This was largely due to the fact that a very large number of the association cows in this state freshen in the fall, and are starting to dry off. Pastures are also getting short and dry in most sections of the state.

There were 57 cows sold during the month as unprofitable. Five pure-bred bulls and nine pure-bred cows were bought during the month.—L. P. Emerick.

Another Year's Work

HOARD'S DAIRYMAN:—During the past year in the Plover, Wis., C. T. A., 415 cows were tested in 33 herds, 13 cows produced over 400 pounds of butterfat, 106 over 300 pounds, 32 cows in Register of Production, and 11 herds averaged over 300 pounds fat. The association average for 33 herds is 6,837 pounds milk and 265.6 pounds fat.

Josie, a grade Holstein owned by Oley R. Wincentsen, takes high cow honors; her production is 11,633 pounds milk and 444.7 pounds fat.

Russell Archer takes herd honors with his herd of eight grade Holsteins that averaged 8,549 pounds milk and 354.1 pounds fat.

Fifteen herds were T. B. tested and 12 reactors were found. Seven members installed drinking cups, ten barns whitewashed, five silos built, four members use milking machines, four pure-bred sires bought, six members grow alfalfa.

A. G. ELBERT, Tester.

Minnesota Has Forty Associations

The following data is obtained from the report of E. A. Hansen, supervisor of cow testing associations in Minnesota:

Out of 40 associations in operation, 29 submitted an annual report for the year ending December 31, 1923. There were 32 new associations formed during the year, and five associations failed to reorganize.

Of the 9,568 cows on whom a report was secured, 8.5% were disposed of as unprofitable. Pure-bred sires were in use in 97% of the herds. Silage was fed by 86% of the members and legume hay was fed by 59%.

The average production of 9,568 cows was 6,637 lbs. milk, testing 3.89% fat and containing 258.7 lbs. fat. The average cost of feed was $42.27, leaving a profit over feed cost of $82.13.

High herd consists 20 pure-bred and grade Holsteins owned by Ed. Oliver that averaged 15,700 lbs. milk containing 530 lbs. fat. Highest producing grade cow was also in the Oliver herd and she had a record of 17,314 lbs. milk containing 612 lbs. fat. The highest pure-bred cow (also on A. R. test) was a Brown Swiss owned by F. P. Minnette and Son. Her record was 25,848 lbs. milk containing 1,002.6 lbs. fat.

A Pennsylvania Association

The York Valley, Pennsylvania, Association finished the year with 23 members and 371 cows. The average production per cow was 8,344 lbs. milk and 314 lbs. fat. There were 42 cows producing over 400 lbs. fat, first place being taken by a registered Holstein, owned by H. E. Robertson, that produced 22,323 lbs. milk and 706.3 lbs. fat. Twelve herds averaged over 300 pounds fat, the Robertson herd of 14 pure-bred Holsteins heading the list with an average of 13,309 lbs. milk and 449.7 lbs. fat.

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Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

THE CIRCUIT RIDER

Experiences of a Kansas Cow Tester

J. C. WALLACE, KANSAS

I HAVE been a cow tester. How matter of fact, prosiac, and simple that sounds! And so I thought the life and duties of a cow tester to be when I engaged in that occupation some six months ago. It all sounded easy enough as outlined to me—just a few straightforward tasks and duties—I was to operate the Babcock test, keep cost of production records on bovine matrons of doubtful disposition and pedigree in some twenty herds or more—also to give members of the association advice regarding matters of feeding, breeding, and sundry other details related to the operation of a dairy farm. These duties were all fully outlined by a member of the extension department, a supposedly honorable and competent man. It has since occurred to me that the thing he was most expert in was keeping the rosy side of things uppermost and in withholding some of the details of life before a prospective cow tester.

Of course the expert told me no deliberate falsehoods, but there is a deceit which puts the veriest falsehood to pale shame; I refer to the omission of certain details—and in that art the expert had no peer.

The duties he outlined to me I have performed, but only in an automatic sort of way. My concentrated thought is wrestling with more entertaining and gymnastical feats of grey matter. Yet, verily, I wonder if that extension specialist has ever blushed in the seclusion of his chamber at the multitude of "minor" details which he so thoughtlessly omitted when he imparted his instructions to me—for listen, if you will, to an incomplete and meager list of the details he forgot to mention.

I spend my evenings adding milk sheets while the daughter of the house plays the piano and sings her favorite songs. I figure rations while I hear the long, sorrowful tale of the awfulness of the neighbor's children. I write in herd books while Mrs. chats long and uninterruptedly over the party line. Often I am obliged to keep the baby's teething ring in place and watch the beans from boiling over.

I tutor high school pupils in English and algebra; I write chemistry equations and pronounce such words for them as xprhynax and zrnxhyhr, etc., and next month on my return am greeted with reproaches: "Say, you worked all of my problems wrong!" "Teacher said that theme you corrected and rewrote for me had twenty-four errors in it!" And I am supposed to look sad and repentent and strive to do better next time.

I try to keep the family posted on fashions at least once a month. If I fail to be able to tell Mrs. Swenson how much Mrs. McGuire's fall hat cost, I am frowned upon and given a small piece of pie for supper.

I have taken care of the baby and criticized the herd sire all in the same half hour. Many a weary mile have I walked to see the promising young heifer just bought. I have developed a set speech for all such occasions, as well as for the member who tells me what a wonderful cow old Brindle is and how I am not seeing her at her best.

I know the first name of every lad's sweetheart and I always ask the boys how things are. I know when to ask daughter how she ever found such a wonderful new hat and frock. I know which ones like to sit on the back porch in the evenings and I am never partial to any, no matter how lovely or homely they are.

I learn one new joke each month and relate it to each member. I am a walking dictionary of harmless gossip. I carry more family secrets than a private detective, a village gossip, or a telephone girl, but I must keep them locked in my breast or I would be hanged before morning while all of the members of the association smiled.

I have taken invalids riding in my Ford and given sick chickens castor oil, prescribed for ill critters of all sorts, and tried to be happily on my way before they died. I have given much advice of doubtful volume on subjects that I have never heard of because it seemed that I was expected to know. I have chosen wall paper and the color of paint for the house.

I am supposed to sleep but five hours each night because I come only once a month and the folks like to entertain me till eleven or twelve o'clock, but they always milk at four A. M. I have slept in a poor house because the farmer next door had no spare bed.

I am as welcome to the housewife as the smallpox, and all of the hired men cuss me. I can't even snore at night without being told about it and once a hired man kept me up all night to tell me his affairs of heart.

I realize that I have been woefully inefficient. My education lacks breadth and variety. I need more versatility. Outside of my dairy courses I have no background whatever for my various problems. I have often longed for a course in "Interior Decorations" or "Home Beautification". So handy to a cow tester to have little points like that to call to his aid now and then.

If a cow tester is to realize his full opportunities for service there is no question that he should be a graduate veterinarian, while a first class mechanic's certificate would be advantageous also. If he is not a born diplomat and reader of human nature, it would be best to make an exhaustive study of psychology. Courses in "Landscape Gardening" and "Clothing and Textiles" would not be amiss. A course in a barber's college would be a stroke of genius for a prospective tester—so often it is hard for a dairyman to get to a barber shop. Add to these a few courses, degrees, and arts, the patience of Job, and an indefatigable body and mind and you will make an excellent cow tester.

To digress a bit, and in conclusion I will say that a tester's life is not a soft one or a snap as perhaps the reader may guess from the few points mentioned above. Nevertheless it has its real and lasting compensations—the friendships gained and the contacts made I would not trade for money or wealth untold. One meets real men and real women among his members. Their worth and the value I place upon their regard have repaid many times the insignificant tribulations of my daily tasks.

When you visit a home once a month for, say, a year it is surprising how much interest and solicitude for the well being of that little group is aroused in you. The most interesting part of my work was not testing, but people; and I do believe that there are just a few more honest to goodness folks among cow testing association members than any group of people of a like number that can be found. Altogether the tester's job is a most fascinating employment and there is nothing more exhilarating.

Milk Record Sheets

For years Hoard's Dairyman has been preaching the necessity of keeping records of the production of each cow. Only by knowing how much milk each cow actually gives is the dairy farmer able to improve his herd. Our Book Department has various sizes of milk record sheets to make it easy to keep tab on your cows. Complete samples with price list will be sent for 5 cents in stamps. Address Hoard's Dairyman, Fort Atkinson, Wis.



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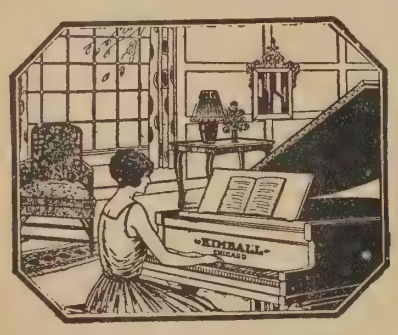
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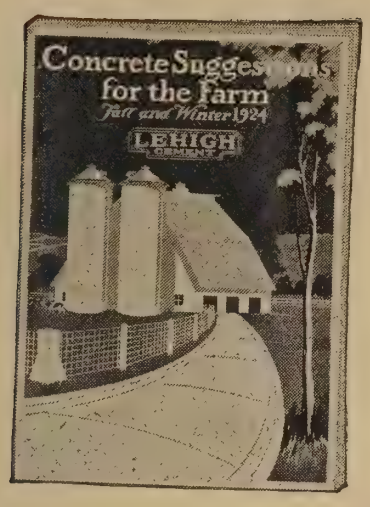
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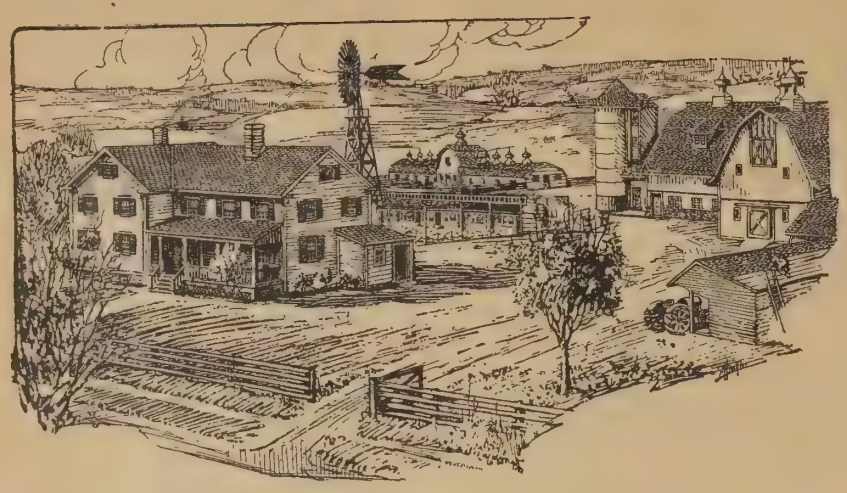
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New York's Banker-Farmer Conference

H. H. LYON, NEW YORK

CO-OPERATIVE work is well at the head in agricultural affairs. Banker-Farmer conferences are held in all sections and one was held in late August at the Cornell college of agriculture. Dr. C. E. Ladd was in charge and suggested that the financing question in relation to farming is one of the biggest problems that we have.

D. H. Otis, director of the agricultural commission of the American bankers' association, reported that bankers favor diversified farming and he selected Kansas and Wisconsin to illustrate his point. Wisconsin is better diversified and the farmers are receiving much more. Mr. Otis argues that Kansas needs many more products and Wisconsin some more, and it is the idea of the Commission to encourage such effort and among other things Kansas should have more cows. In Wisconsin it is suggested that more legumes are needed and banks are expected to encourage the diversification suggested for each locality in the country.

As a whole the Commission would favor further development of boys' and girls' clubs with further assistance from bankers. Second, they favor more diversifications; third, closer relation of bankers with farmers, with bankers to furnish credit rather than storekeepers. This he thinks will result favorably to both farmers and storekeepers. In the fourth place they favor federal appropriations for more investigation and research work in state experiment stations.

Fruit Packers' Problems

Fruit packers of western New York are having their own problems in relation to co-operation. C. S. Wilson explained one of these associations which he regards as an average. Twenty growers agreed to start and each to invest five hundred dollars. They found that they could buy a building and necessary outfit for $13,000. This necessitated a mortgage on the property of three thousand. Several of the members could not supply the cash and had to give notes, thus necessitating farther credit at the start. Soon barrels and supplies must be purchased and paid for. To get additional credit at the bank each member gave a note for five hundred dollars to be used as collateral.

Large volume of business is essential so thirty such associations federated, hired a manager, and pooled their product. Many growers needed money. At first thirty cents a barrel was advanced but later this was increased to two dollars. To get the money, warehouse receipts were used and credit obtained on them.

Mr. Wilson finds that in grading the apples there were found to be 141 varieties and three, four, or five grades of each variety. It will at once be seen what a big job developed to keep all these separate and return to each grower his proper share of the proceeds. Bank credit was essential all the way along and should there be any better methods of obtaining it they would be worth while.

Financing the Dairymen's League

The method of financing the Dairymen's League was explained by the vice-president, John D. Miller. He also explained the organization. It is a membership association with member control through directors as provided in the law. The second feature is that of principal and agent, with a contract between them, the association being the agent. This contract is frequently mentioned as the pooling contract. Mr. Miller suggests that it may be because that word does not appear in it anywhere. In the third place there is the idea of creditor and debtor, the association being the debtor.

Handling milk is somewhat different from other products because of its daily supply, its perishability, and especially because of the surplus at times necessitating manufacture. Forty per cent of it all is produced in three months' time.

There is no stock in the League, it being a membership co-operative with one vote for each member. There are no profits and any money that might in other corporations become a surplus or reserve goes back to the member in the thirteenth check. Approximate returns are made every month to members, care being taken not to allow this amount to exceed the real return for the month. Occasionally large stocks of evaporated milk are accumulated and a part of their value is returned to the producers by borrowing from this reserve fund. In case the evaporated milk sells for more than is estimated this fund is increased by the transaction, or if it sells for less the fund is of course diminished.

Then Mr. Miller explained briefly how deductions are made from members' checks as a loan for capital purposes. The first year's deductions amounted to approximately 4.3 million dollars and the second to 4.6 million. Since then the deductions have been much less, or about 2.5 millions. At present the association is engaged in buying up a certain amount of the earlier issue at a five per cent discount, that being sufficient to care for the cost of handling. The purpose of this is to bring all the yearly issues to practically the some amount when they fall due. It has not been found necessary to make use of bank credit thus far in League operations.

The Wool Pool

The state wool pool, as it is called, amounts to a business of about a quarter of a million dollars. F. E. Robertson is in charge and he rendered a report at the conference. Thirty-eight counties are in the association, these county associations being members of the state federation. The wool is sent to the warehouse in Syracuse, it is identified and graded, there being frequently six or seven grades in a single flock. May, June, and July are especially low months and but little wool is offered by the association before September first. It is then offered usually to mills, not to speculators. Financial problems are not great as advance payments are not commonly made to producers.

The important expenses are freights, insurance, labor, bookkeeping and selling. A small amount of warehouse receipts is used to pay these expenses and to pay a few men who feel that they must have the money, but most of the wool is free for shipment at any time. It would be possible to borrow up to half the value of the wool. Interest is charged the producer on advance payments to the extent of its cost to the association.

The G. L. F. Exchange

H. E. Babcock brought out very well the need of establishing the G. L. F. Exchange. It was impossible before to get the needed quality of seed and

seed dealers were making much money blending cheaper foreign seed which would not stand our climate. Fertilizer manufacturers were using filler to the amount of one-fifth to one-half. Now it is easy to get 16 units of plant food, since the public formulas of the Exchange have been published. The same story is found in the matter of dairy feeds. Quality is now available but Mr. Babcock feels that the Exchange needs to go on. He advises that it is costing all dealers too much to get orders and this is even true in the case of the Exchange. Members should do more to reduce this cost.

In discussions, one speaker objected to a co-operative like the G. L. F. operating unless it maintained a constant supply throughout the year as do the dealers. It is not fair to the local dealer. Another thought it best to allow the local dealer a chance to handle the co-operative goods and if refused them there can be no objection to car door and intermittent service.

I omitted one important statement to the effect that all co-operatives should make intelligible statements once a year or oftener. Another statement was that people observe the failures much more than the successes and say more about them.

Poor Keepers of Cows

HOARD'S DAIRYMAN:—Dairymen fail, as a rule, who do not realize that to be successful they must understand maternity. Further, it will be found that they do not like cows and do not treat them as mothers. Their ideas seem to run along these lines:

Don't weigh your milk, for then you might have to figure and think.

Feed the cows timothy hay; it is good for race horses.

Cow testing associations are needless, a useless waste of money.

Don't have any windows in the barn, the hired man might want to look out.

Keep the water ice cold; shivering gives the cows exercise.

Avoid heavy milkers, they consume too much time. Why, some of these cows have to be milked three and four times a day.

Former Governor W. D. Hoard, founder of Hoard's Dairyman, said, "Remember the cow is a mother and her calf a baby." I have often heard men famous in the dairy cattle world state this saying of Mr. Hoard's and in doing so their faces would light up with pleasure, and they have stated to me that this saying of the former governor gave them a new vision of the requirement of a dairy cow.

There are some dairymen who weed by guess, feed by guess, and breed by guess,—and they are continually kept guessing as to how they are going to get money to pay their bills. Some contend that the only way to get more money is to keep more cows. In a good many cases they are only milking cows for exercise and if they discarded the unprofitable cows through the use of the scales and the Babcock tester they would undoubtedly make more money, to say nothing of decreasing their labor.

My definition of a scrub cow is the kind of a cow that doesn't earn her board—the kind of a hired man we would call a scrub hired man. There are lots of both. The scrub hired man doesn't stay very long on one farm but the scrub cow does. Why? Simply because the farmer knows that the scrub hired man is no good but doesn't know the scrub cow is no good. He may have one such cow and he may have a dozen such cows in his herd. He is in need of a membership in a cow testing association.

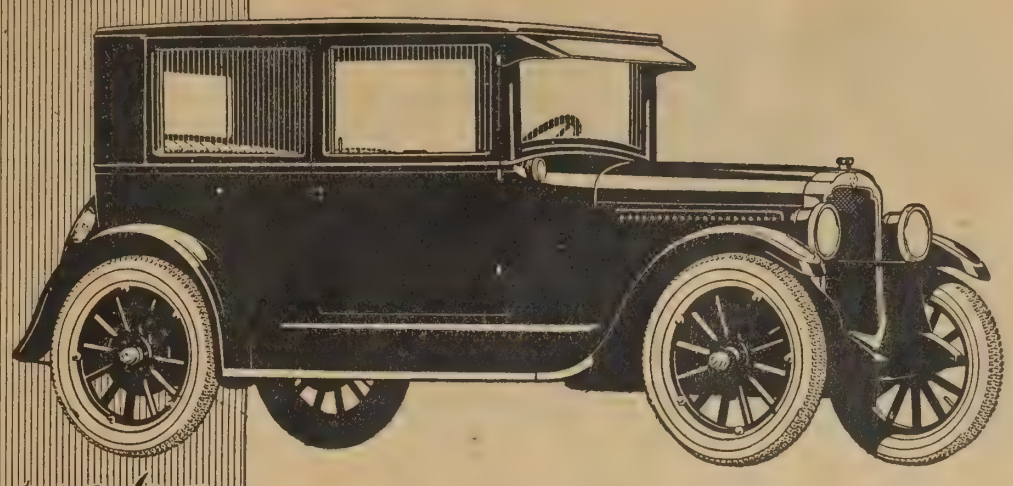
Scrub cows are both born and made. Some farmers are not dairy farmers and never will be; they should never attempt dairy farming. In the hands of these farmers an A. R. O. soon becomes but little better than a good scrub. There are cows that are not built for producing milk in paying quantities. My experience with this class of cattle causes me to state that they are built for jumping fences and smashing down cornstalks rather than for milk production. They are built like a race horse and often with a disposition like that of a broncho.

Their owners put up with them year after year through force of habit; they keep cows by count rather than by reason. They get in the habit of keeping about so many cows and the individuality of the animals doesn't count for very much. The heifer calf is kept simply because it is a heifer calf and grows into full cowhood without the owner giving any particular thought as to whether the calf is a promising one or whether it gets the right kind of care. When IT becomes a milk producer he milks her simply because she gives milk and that is all there is to it. She stays in the herd until she is too old to chew her cud, and then she is fatted for the butcher. If she brings $30 to $40 for beef, the owner feels he has done well.

And this is what people call dairying in such a land as ours.

Illinois. C. R. BARKER.

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The Measure of a Cow is by the pail

The real measure of a dairy cow is not by "hands" or body weight but the number of pails she fills monthly with milk rich in butter fat.

The ingredients in GOLD MEDAL VITAMIN DAIRY RATION are scientifically balanced, making it highly digestible and promoting growth and maximum milk production. Containing the wheat germ (embryo), it has a high vitamin content—that indispensable part of a cow's ration.

GOLD MEDAL VITAMIN DAIRY RATION is composed of Wheat Germ (Embryo), Linseed Oil Meal, Cottonseed Meal, Corn Gluten Feed, Wheat Bran, Wheat Middlings, Red Dog, Second Clear Flour, Ground Barley, Ground Corn, Ground Oats and Salt.

GOLD MEDAL HARD WHEAT MIXED FEED gives the cow a foundation for larger milk production.

NORTH STAR MOLASSES DAIRY RATION is a good, inexpensive milk producer.

The same organization mills GOLD MEDAL FLOUR and GOLD MEDAL FEEDS and unqualifiedly guarantees their quality.

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DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets firm and active during week ending Sept. 20th. Weather conditions were favorable for quantity and quality production. Heavier demand for September-made cheese expected to develop. New York make short.

The average wholesale prices on American cheese, style Twins, for the week ending Sept. 20, 1924, for the corresponding week a year ago and for the previous week were as follows:

	Ave. for the week ending Sept. 20 1924	Sept. 13 1924	Sept. 20 1923
	Cts.	Cts.	Cts.
New York	21.9	21.1	26.0
Chicago	20.0	19.6	24.0
Boston	22.0	21.3	27.0
San Francisco	18.7	18.7	26.2
Wisconsin Boards	20.0	19.5	24.5

The receipts of cheese at these markets were 4,448,661 lbs. for the week as compared with 3,857,465 lbs. last week and 4,266,677 lbs. a year ago.

Twin City August Milk

For the month of August the Twin City, Minnesota, Milk Producers' Association paid $2.20 a hundred for 3.5 per cent milk f. o. b. St. Paul. For that portion sold as fluid milk the association received $2.50 from dealers. Almost one-third of its milk was sold in the form of butter and cheese, which at 41 cents a pound for fat brings $1.43 a hundred for milk. "Add 15 cents to this for skimmilk," says the Producers' Bulletin, "and you have $1.58. This accounts for 8 cents of our 30-cent spread. The other 22 cents is the expense of operating."

CHICAGO, Sept. 25—The butter market today was about steady on 92-score butter, but sentiment was mixed. Medium and lower scores were weak in buyers' favor. Concessions in some quarters were offered but buyers showed no interest and trade on all grades was quiet.

Fresh butter, 92 score, 35¼c; 91 score, 34½c; 90 score, 33½c; 89 score, 32½c; 88 score, 31½c; 87 score, 30½c; 86 score, 30c. Centralized carlots—90 score, 34c; 89 score, 32½c; 88 score, 30½c.

MILWAUKEE, Sept. 29—Butter, creamery, extra tubs, 35½c; standards, 34c; extra firsts, tubs, 33½@34c; firsts, 31@32c; seconds, 29@30c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 39@40c; ordinary firsts, standard cases, 37@38c; miscellaneous lots, shippers' cases returned, candled, 34@36c; seconds, dirties, 25@26c; checks, 24@25c.

Cheese—American full cream, Twins, 20@20½c. Young Americas, 20½@21c; Longhorns, 20½@21c; Daisies, single, 20@21½c; squares, 21½@22c; American, 32c; Pimento 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

FOND DU LAC, Wis., Sept. 27—Average cheese prices, majority of sales, f. o. b. shipping point: Flats, 21c; Single Daisies, 21c; Young Americas, 22c; Longhorns, 22¼c; square prints, 23c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Sept. 27: Single Daisies, 19½c. On Farmers' Call Board Sept. 26: Young Americas, 20c; Longhorns, 20½c; square prints, 21c.

NEW YORK, Sept. 29—Butter, firmer; receipts, 4,048 tubs; fresh supply, 62,472 tubs; creamery extras, 37½c; specials, 38¼@38¾c. Eggs quiet; receipts, 4,848 cases; fresh supply, 80,131 cases; white, fancy, 67@71c; fresh firsts, 40@53c; western whites, 34@66½c.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were weak and unsettled during the week ending September 20. Heavy receipts on the market contributed to lack of support of buying interests. Some storage butter is being used. Firm foreign markets favor exporting, but no real business was reported.

The average wholesale prices on 92-score butter for the week ending Sept. 20, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Sept. 20 1924	Sept. 13 1924	Sept. 20 1923
	Cts.	Cts.	Cts.
New York	37.5	38.4	46.9
Chicago	37.2	37.2	47.1
Philadelphia	38.5	39.4	47.9
Boston	38.3	38.7	47.5
San Francisco	38.2	39.6	48.2

The receipts of butter at these markets were 12,857,414 lbs. for the week as compared with 13,417,833 lbs. for last week and 12,319,438 lbs. a year ago.

Cloverdale and Silver Resign

The resignation of John W. Coverdale as secretary of the American Farm Bureau Federation and of Gray Silver, Washington representative, who have both been with the American Farm Bureau Federation since its inception in 1920, was presented to and accepted by the executive committee of the American Farm Bureau Federation in its regular session in Chicago, Sept. 15—17.

Both men stated in their resignations that they wished to devote full time to their duties with the Grain Marketing Company of which Silver is president and Coverdale secretary-treasurer. A resolution of indorsement of the Grain Marketing Company was also passed by the executive committee.

Ayrshire New Illinois Champion

Otterkill Hortence, an Ayrshire owned by F. C. Farwell, becomes the Illinois state champion producer on her 300-day yield of 14,954 lbs. of 4.36% milk, 652.16 lbs. fat; carrying a living calf 180 days of this period and thereby qualifying as the eighth highest producer in this division of the breed in the mature class, and winning one of the Ayrshire Breeders' Association's silver medals.—Ayrshire Breeders' Association.

"Wot you doin', chil'?"
"Nothing, Mammy."
"My but yoh is gettin' like yoh father."

Carload Prices of Hay, Straw, and Feed, Sept. 20, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	27.50	28.00	.....	....	19.75	25.00	27.00	24.00	20.00	25.00	20.00	24.50	....	16.00	
No. 1 Clover, mixed	.....	.....	.....	....	16.75	.....	.....	.....	18.00	.....	.....	.....	.....	15.00	.....
No. 1 Clover	20.50	.....	.....	.....	.....	.....	.....	.....	19.00	15.50	....	20.50	.....	16.00	.....
No. 1 Alfalfa	.....	29.50	.....	.....		34.00	29.00	27.50	26.50	22.00	24.00	24.00	27.00	20.75	27.00
Standard Alfalfa	.....	26.00	.....	.....		26.00	27.00	25.00	.....	18.00	20.00	.....	14.50	18.75	26.00
No. 2 Alfalfa	.....	23.50	.....	.....	.....	23.00	.....	22.00	24.00	15.00	15.00	18.00	12.50	16.75	25.00
Oat Straw	13.50	14.50	14.00	.....	13.50	....	.....	.....	11.00	10.50	8.50	....	8.50	.....	.....
Feed—Bagged															
Wheat Bran															
Spring	31.50	.....	31.00	.....	30.50	34.00	.....	.....	29.50	26.00	23.00	.....			.....
Soft Winter	33.00	.....	33.00	.....	33.00	34.00	.....	.....	30.00	.....	.....	25.50		23.00	34.00
Hard Winter	32.75	.....	32.50	.....	...	33.50	.....	26.50	29.50	26.00		25.00	23.75	23.00	.....
Wheat Middlings		.....													
Spring (Standard)	33.50	.....	33.00	.....	33.00	39.00	.....	.....	32.50	28.00	25.00	.....			.....
Soft Winter	.....	.....	39.00	.....	34.00	42.00		.....	35.50	.....	.....	.....		29.50	44.00
Hard Winter	.....	.....	.....	.....	.....	35.00	.....	.....	35.50	.....	.....	31.00	30.00	29.50	.....
Wheat Millrun	33.50	.....	34.50		.....	37.00	.....	.....	.....	.....	27.00	.....	.....	26.00	34.00
Rye Middlings	.....	.....	.....	.....	.....		.....	.....	.....	.....	24.00	.....	.....	.....	.....
High Protein Meals															
Linseed	51.50		51.25	.....	.....	.....		41.00	47.50	46.50	44.00	48.00	49.00	49.50	46.00
Cottonseed (41%)	48.75	.....	49.50	.....	.....	.....	.....	45.00	45.00	45.75	46.50	43.00	.....	.....	.....
Cottonseed (36%)	45.25	.....	45.50	.....	.....	36.00	.....	38.50	42.00	42.00	44.00	41.00	.....	.....	.....
Tankage (60%)		.....	.....	.....	.....		.....	.....	.....	60.00	60.00	60.00	60.00	60.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	30.00	.....	.....	27.50	28.50	27.50	....	26.00	26.50	23.00	31.00
Gluten feed	47.95	.....	46.90	.....	47.00	.....	.....	.....	43.70	40.80	43.90	.....	.....	.....	.....
Hominy feed (white)	47.60	.....	47.00	.....	47.00	47.00	.....	.....	42.00	42.50	....	39.50	.....	.....	.....
Hominy feed (y'llow)	46.00	.....	45.50	.....	46.00	47.00	.....	.....	42.00	41.00	39.00	....	39.50	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	42.50	41.00	.....	39.50	.....	48.00
Dried Beet pulp	.....	.....	.....	....	41.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.00

The Ozark Stock Show

I. D. GLOBE, MISSOURI

THE dairy cow is rapidly claiming for her own the vast Ozark region of South Missouri and Northern Arkansas. That is the lesson of the sixth annual Ozark Stock Show at Springfield, Mo., Sept. 15 to 20.

When the first show was held five years ago, beef cattle and hogs claimed by far the larger share of attention, greatly outnumbering all other entries. The dairy cattle were so few as to make the lover of good milk cows almost weep with loneliness. "But the time will come when all this will be changed," said William Wiggins of Missouri, when the first show was over. "The day is coming when the visitor at this show will ask, "Where are the beef cattle?"

Wiggins, a veteran Jersey breeder who milked his way out of debt when his fruit ventures proved disastrous, was back at the show again to find his prophecy had come well nigh literally true. For at this year's show only two Shorthorn and three Hereford breeders made entries and only two breeds of hogs were shown, while the dairy cattle were the overshadowing attraction.

Twenty-six Jersey breeders from Missouri, Arkansas, and Louisiana made exhibits, while nine Holstein breeders from Oklahoma, Kansas, Nebraska, and Missouri provided the display of black and whites. Guernseys again offered an attractive exhibit, enthusiasm for this breed being a notable feature of the show.

"There were only 23 Jerseys at the first show," said Professor O. E. Reed of the Michigan College of Agriculture, who judged the dairy breeds the first year and returned again to make the awards at the show just ended. "This year we had 124, not so many as last year but of far better quality. It looked to me as if the Jerseys were 100 per cent better than I saw when I tied the ribbons here at the 1919 show. Better bulls are constantly being brought into this section and there is wonderful improvement over the animals shown here five years ago. The improvement in the young stuff is particularly gratifying. The Holsteins also are much better than formerly. As compared with last year, the Guernsey exhibit, although small, also has improved."

Reed did dairy extension work in the Ozarks a number of years ago when a cream separator was a curiosity and when believers in the dairy cow were almost as scarce as separators. Now one finds new breeders in almost every section; there are many prosperous creameries and one county looks upon its new condensery as its chief assurance of properity.

W. B. Young, Missouri, has been handling Jerseys for 20 years or more, starting with two grade cows. All this time he has been constantly endeavoring to build up his herd by the use of good bulls, having never bought any females outside those two foundation cows. This year he came to the show with a herd of Jeseys good enough to take two championships and first on everything he showed, except a heifer, and she took second. He had the junior champion female in Modeller's Oxford Fern and the junior and grand champion bull in imported Xenia's Noble Fern. Miss Alpha Durnell of Missouri showed the senior and grand champion female, Mollie's Polka Hunter. A. W. Lyon, Missouri, exhibited the senior champion bull, Rebecca's Fern Chief.

In the Holstein section A. J. King, Missouri, proved the principal winner, taking all the championships as well. His Hollyhock Sir Rhoda Korndyke was junior champion bull; Triune Ormsby Piebe 4th, the senior and grand champion. Miss Pearl Piebe was the junior champion female; Crescent Beauty Star Bell the senior and grand champion.

In the Guernsey competition W. H. Schatz & Sons, Missouri, exhibited the junior and grand champion female, Victoria of Terrell Creek; the senior champion female, Schatz's Ultra Countess, and the junior and grand champion bull, Pride of Willow Brook. The senior champion bull was Chick's Bonnie Boy of Oakwood owned by L. S. Myers of Missouri.

Much interest attached to the exhibit made by nine members of the Billings' Guernsey Association, organized at Billings, Mo., two years ago. The parish priest, the Rev. F. S. Enzweiler has been urging dairying as well as other good farming practices ever since he was stationed at Billings five years ago. The Guernsey association is one of the things he sponsored. Two years ago William H. Schatz of Billings and A. J. McDowell, dairy commissioner of the Frisco Railroad, went to Wisconsin and bought ten bred and 13 open Guernsey heifers in the district around Fort Atkinson for the association. Each member put his own money into the project and none could be found who was sorry. The association now numbers 14 members who own 40 females. All females must be bred to a bull selected by the board of directors who are required to visit each herd every three months, see to it that they are free of tuberculosis and properly handled. The bull the association now is using as head of its herd is Pride of Willow Brook, a great grandson of Ne Plus Ultra. Father Enzweiler attended the show to do what he could to further dairying, which is, he believes, the agricultural salvation of the Ozarks.

A closing event of the show was the organization of the Ozark Guernsey Breeders' Association with about 25 members to start with. W. W. Fitzpatrick of Clemson College, S. C., southern representative of the American Guernsey Cattle Club, was present to aid the breeders in organizing. Dr. C. E. Fulton, was elected president; A. J. Miller, vice-president; Joe Cologna, secretary-treasurer. The directors are L. S. Myers, Seth Libsey, W. H. Schatz, Prof. H. E. Dvorachek. Professor Dvorachek, who heads the animal husbandry department at the University of Arkansas, is an enthusiastic Guernsey breeder and believes these cattle will eventually play a leading part in the dairy development of the Ozark section.

Moldy Silage

To keep silage from molding the silo must be air-tight and the corn or other silage material firmly packed while filling the silo. Moldy silage may be caused by any one or more of a large group of fungi, commonly known as molds. These will not grow without the presence of oxygen, therefore if air is permitted to remain in the silage or to enter after the silo is filled, the molds will grow and the exposed silage will be spoiled.

Air may enter around the doors or through joints or cracks between the staves or even through porous material of poorly constructed silos. In this case the mold will be found about defects in the wall and not in the center of the silo. Repairing the defects is the remedy.

If the corn is cut too ripe or if it is frosted and becomes too dry it will not pack closely enough in the silo to exclude all air and moldy spots result. If there is not sufficient sap in the corn, water must be added to cause it to pack firmly and force out all air. Mold from this cause may appear anywhere in the silo.—Ohio Experiment Station.

His Second-Hand Car

"G-good heavens, Alfred! This second-hand car is awful!"

"Y-yes and the worst of it is, the dealer said it would last for years!"—From Everybody's Magazine.



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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Michigan Junior State Fair

"Timers ready? Get set, go!"

They were off. The race was on. At the first turn they were neck and neck. It would be a case of the best man wins. Tomorrow would probably bring its sore muscles as a result of this race. It would be a fight to the finish—the milking contest was under way.



"WE'RE TENTING TONIGHT"—CAMP GROUNDS OF MICHIGAN STATE FAIR JUNIORS

For three successive nights at the Michigan State Fair, boys and girls participated in the sixth annual milking contest. On Wednesday night fifteen girls participated. On Thursday night the boys competed. On Friday night occurred the grand champion contest in which the three winners at each of the previous contests competed.



MARK UP ANOTHER FOR HILLSDALE COUNTY—CHAMPION JERSEY GROUP

Who do you think the grand champion milker was? A boy—no, not this time. It was a girl. At each of the milking contests held during the past six years at the Michigan State Fair for boys and girls, Henrietta Rinke has been a very consistent winner. Four times she has been declared grand champion milker. The other two times she placed very close to the top. Henrietta is a girl nineteen years old and the remarkable thing about her accomplishment this year is that she has not been milking regularly this year. She stated after the contest that she had probably not milked more than fifteen cows during the entire year. Her record was to milk 20.6 pounds in eight minutes and five seconds. She had only .4 of a pound of strippings left in the cow's udder to count against her. Henrietta started milking at the age of eight years. Her father owns Holstein cows.

In second place was another girl, Lucille Helmich. In third place came a boy—a Hoard's Dairyman Junior. His name is Coe Emens. In the girl's milking contest held the first night of the three, Ethel Schoner was declared winner. In the boy's contest the next evening, John Clare Blade, milking a two-year-old Jersey cow, won out, but it so happened that neither of these winners placed in the top three in the championship contest held the last evening of the fair.

We believe you would have to go far to find an exhibit of handicraft work which would excel that shown at the Michigan State Fair in the Junior Department. Michigan boys are making many useful articles. In the same building you could see the exhibits of the club girls in canning, sewing, and other domestic art. Here, also, were held the demonstrations. Twenty-three boys' teams put on work in potato, poultry, handicraft, and dairy club work. Thirteen girls' teams competed in food and clothing work. The winning dairy demonstration team was composed of Luther Crantz and Arthur Nelson. They demonstrated upon sanitary milk production on the farm. The club department at the state fair was in charge of R. A. Turner, state club leader.

Fourteen dairy cattle judging teams composed of three members each competed in the dairy judging contest. The team winning first was from Calhoun County. The first four winners in the dairy cattle judging contest were Carlton Warner, Victor Beal, Wayne Adams, and Walter Maier. These boys represented the state of Michigan in the dairy cattle judging contest at the National Dairy Show. There was also a general live stock judging contest. Both contests were under the supervision of Nevels Pearson, assistant state club leader.



JAMES MAC TAVISH AND HIS GRAND CHAMPION HOLSTEIN CLUB HEIFER

More than three hundred head of live stock owned and fitted by Michigan boys and girls were exhibited at the State Fair. Hillsdale County featured in the exhibits and in the winnings. They brought five carloads of stock and competed for honors in the show rings. All the live stock exhibits were rather equally divided among dairy calves, pigs, and sheep. The club leader from Hillsdale County who is responsible for the large and splendid showing of that group of boys' and girls' live stock is L. H. Matthias.

There were just one hundred and six dairy calves paraded before Judge O. E. Reed of the Michigan Agricultural College in the show ring. Of these, approximately fifty were Holsteins, thirty-five Jerseys, and twenty-one Guernsey calves. Winners in the competition were as follows:

Holsteins

Bull class, 1st, William Gillis on King Cornucopia Kalmuch Houwtje; 2nd, Gerald Wells. Heifers two years old or over, 1st, Neal Brown on Johanna Beech Girl; 2nd, Gerald Wells on Model Sylvia De Kol. Senior yearling heifers, first and grand champion Holstein female, James MacTavish on Princess Irene Posch Beauty; 2nd, Robert Clement on Clement Segis Prilly. Junior yearling heifers, 1st, Ronald Craull; 2nd, Charles Monroe on Spring Valley Houwtje. Senior calf, 1st, Gerald Wells; 2nd, Coe Emens on Julet Johanna Lindenwood. Junior calf, 1st, Claude Gehringer, 2nd, Jacob Richter on Ona Stronghurst Bess. Club herd, 1st, Hillsdale County.

Guernseys

Senior yearling heifer, 1st, Keith Williams on Nivolette of Bon Ayre; 2nd, John Williams on Mirabella of Bon Ayre; Junior yearling heifer, 1st, Warren Crandell. Senior heifer calf, first and grand champion, Bernard Burden; 2nd, Orpha Patrick. Bull class over 4 months and under one year, 1st, Leta Lister; 2nd, Richard Gross on Gay Duke of Washtenaw. Club herd, 1st, Hillsdale County.

Jerseys

Senior yearling heifer, 1st, William Roose on Gambogis Clara Finance; 2nd, Roland Stein on Oxford's Idle Belle. Junior yearling heifer, 1st, Alton Hoopingarner on Golden Baron's Lady 2nd; 2nd, Floyd Anderson. Senior heifer calf first and grand champion; 1st, Warren Goss on Dolores Oxford Charming; 2nd, Laurel Bailey. Junior heifer calf, 1st, Raymond Corey on Oxford's Victoria. Bull class over four months and under one year, 1st, Edmund Shuart on Emmiento Minerva's Raleigh; 2nd, Vernon Shilling.



HILLSDALE COUNTY SHOWED THE BEST GROUP OF CALF CLUB HOLSTEINS—SEVEN COUNTIES COMPETING

Danny Solves a Problem

Foreword—In this chapter of the "Adventures of Daniel Dare" we find our little hero struggling with another phase of the corn subject—silage. Using Danny's formula, can you determine the capacity of the silo on your farm? What is your answer to the second problem given at the end of this chapter?

"Dad, how big is our silo?"

It was evening in the Dare household. The chores were done and the family was gathered around the table in the dining room. Mr. Dare was reading the latest copy of Hoard's Dairyman. Mrs. Dare was mending stockings. Danny's two sisters were playing checkers. But Danny was studying his lessons.

Mr. Dare looked over the edge of his paper. "Fourteen by thirty, son. Why?"

"Oh nothin'," replied Danny, "only teacher gave us a problem to work at home tonight. We have to find out how much silage our silo will hold. Then we have to find out some other things about silage."

Mr. Dare said, "Oh," and went on reading.

"Seven squared equals forty-nine," Danny figured out loud to himself. "Times 3.1416 equals 153.9384. Multiply that by thirty and you get 4,618.152. That's the number of cubic feet. The formula is radius squared times pi times height. Now to find the number of pounds of silage....

"Teacher said there are between 40 and 50 lbs. of silage in a cubic foot. So I'm going to multiply this first by forty, then by fifty. That gives me somewhere between 184,726 and 230,907 lbs. of silage. Divide that by 2,000 lbs. and I'll have the approximate number of tons...."

"Danny, when you talk so much, I can't think how to move," one of his sisters broke in.

"Never mind, girlie," Mrs. Dare spoke up, "Danny is getting his lessons."

"How much will she hold, son? I never figured it up, but I should judge about 85 tons." Mr. Dare, having finished the article he was reading became interested in Danny's problem.

"That's a pretty close guess, dad. The way I've figured it the answer is 92 to 115 tons. Say, father, what kind of corn do you grow for silage? Does it make any particular difference?"

"Well, I generally grow Silver King. It has nice big ears and matures fairly early. You remember



Do you know how much silage your silo holds? Danny Dare figured out that his father's 14'x30' silo holds between 92 and 115 tons.

we drilled in that piece we cut for silage. But the piece we grew for corn was check rowed. Do you know why that was?"

"Wasn't it because you got more stalks and leaves by drilling and you didn't care about whether you got such a big yield of corn or not?"

"Exactly, Danny." .....

The next afternoon when the class in agriculture was called to recite, it fell to Danny's lot to put his problem on the blackboard. Miss Edsel had him explain each step to the class. When he had finished she said, "You have done very well with your problem, Danny. I wish all of my pupils took as much interest in their work as you do."

Then to the class she said, "Who knows how many kinds of silos there are?"

A hand went up. "Ours is a cement silo, Miss Edsel. Our neighbor's got one made of wooden staves. Once I saw one made of tile."

"That's three different kinds right there. Good enough for you, John. Did any of you ever see a silo made of stone?"

"I did teacher. There's one down near our place. It's an awful old silo." Mark Mason had spoken his piece.

"Who can tell me why silos are round?" Miss Edsel challenged. There was a silence, then Danny came to the rescue.

"When they're round the silage can't stick in the corners and spoil."

"Very good. What does a silo make you think of?" This question was for Mark Mason.

"Work," promptly answered Mark. The class laughed.

"It makes me think of a giant preserve jar." Miss Edsel went on. "I'll

tell you why I think of it like this. Because in the first place it's cylindrical. So is the jar in which your mother puts up fruit. Second, it's the place where the corn will keep in a green condition for a long time. Your mother cans fruit so it will keep for you to eat in the winter.

"Now the silo and the fruit jar work a good deal on the same principle. The silage is packed in tight so that the air will be kept out. When there is no air, molds and harmful germs cannot work and spoil the silage. Your mother puts a cap and a rubber onto her fruit jar for this very same reason—to keep the air out. There is one more question we ought to settle this afternoon. When is the proper time to make silage?"

Danny was ready with the answer. "Dad cuts the corn when the majority of ears are dented."

"Good—here's another problem for you all to solve. You have found the capacity of your silos at home. It is said that a producing cow eats on the average a cubic foot of silage a day. How many cows might your father feed in six months if he were to feed out all of his silage in this time?"

Minnesota Calf Club Show

Minnesota had its biggest and best calf club show at the 1924 State Fair. The work of more than 2,000 young people in 4H club work was represented. The calf club barn was not large enough to house the splendid exhibits. Twenty juniors had to take their Holstein heifers over to the main barn.

Several Hoard's Dairyman Juniors were named winners, among them our good friend, Myrtle Himrum, whose story and picture appeared last winter on the Junior page. The yearling heifer class brought out eleven competitors this year. This class is encouraging boys and girls in the right direction. A very interesting contest was the competition by counties. Mower County with five Holsteins placed first.

Fifteen demonstration and judging teams represented dairying in the Junior arena. In addition all these dairy calf club members were given instructions from eight to ten each morning in a short course, one of the new features in the club department at the Minnesota State Fair.

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Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

You will find a more complete discussion of the following questions in the September 26 issue of Hoard's Dairyman.

Tell about the record of Glenwood's Miss Greta. At the age of thirteen years she made a world's record for the Guernsey breed in producing 12,121 lbs. milk containing 642 lbs. butterfat. In the past nine years she has had twenty-nine descendants bred and raised at Shoreland Farm, Waukesha County, Wisconsin. Eleven records made by her descendants average 544 lbs. butterfat, the best record being 823 lbs. fat produced by her daughter, Guinan's Beauty.

Compare the feeding value of skimmilk and corn with corn and water for growing pigs. In experiments conducted at the Michigan Agricultural College, four Yorkshire pigs from the same litter were divided into two lots. Lot one was fed for a period of five months on shelled corn, yellow corn, and skimmilk. Lot two was fed on shelled yellow corn and water for the same length of time. At the end of five months the skimmilk pigs had made an average total gain in weight of 221 lbs., while the pigs getting shelled corn and water had made an average total gain of only 9.5 lbs. Skimmilk made the difference.

Will skimmilk develop stunted pigs? A pig was stunted up to the age of one year, at which time he weighed only 76 lbs. Skimmilk was then substituted for the water. Five months later he weighed 350 lbs. Skimmilk brought about a complete recovery of growth. (See article entitled "Food Value of Skimmilk".)

Name one way to increase farm profits. "Reduce the cost," says Wilber J. Fraser in his thirteenth article on "Ever Failing or Never Failing Pasture".

Give the best feed combination for a dairy feed. Sweet clover pasture for the summer six months at the rate of three-fourths acre per cow; one-third of an acre of corn for silage, and one-half acre of alfalfa hay per cow for the winter six months.

Junior Letter

Starting a Flock of Sheep

Hoard's Dairyman Juniors:—The boys and girls are very ambitious out here. But the people around here are trying to get up a canning club for the girls and a calf club for the boys, but things haven't gone very far.

On March 28th my old sheep gave birth to two little lambs, a buck and a ewe. The little buck won't nurse so I have to use a bottle. They are getting on fine now.

Well here I am talking about club work again. My brother has a registered Jersey cow and calf and a sheep to start on. But I've only got a sheep, two lambs, and some chickens. My father gave me ten bushels of seed potatoes, a third interest in an acre of cucumbers, and a vegetable garden to make money on. I'm going to high school so I need the money. My brother and I are going to start a flock of sheep from what we've got. My sheep's name is Daisy and her lambs are Pet and Billy. They haven't learned to come at my call yet.

Ohio. Florence E. Cooley.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

It will keep you warm and comfortable because



Reg. U. S. Pat. Off.

Brown's Beach Jacket

is made of warm, wool-fleece lined, knit cloth, cut to fit the body snugly without binding—a comfortable garment to work in. Then too, the cloth is very strong, will not rip, ravel or tear, and frequent washing will not harm it. The old reliable Brown's Beach Jacket is the most useful cold weather garment for farmers and all others who work or play outdoors. Three styles—coat with or without collar and vest. *Ask your dealer*

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Write for our new illustrated catalog. Describes our complete line of ear tags, punches, tattoo outfits, herd books, milk record books, milk can tags—everything to make the dairy business more efficient.
55 Main St., West Lebanon, N. H.



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Holstein Springers and fresh cows. W. STRAUSS, R. 5, Watertown, Wis. 9-4

For Sale—22 head of T. B. tested, large, young, well marked Holstein springers. JOSEPH FISHER, Janesville, Wis. 11-2

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

For Sale—Registered Holstein herd. 40 head. Price $6,000. 25 from 35 lb. sire. 10 from 30 lb. sire. MAX WITTE, Route 5, Watertown, Wis. 11-*

Carload Young Holstein cows and heifers for sale. King of the Pontiac, King Segis and Ormsby breeding. A. C. THORESON, Baldwin, Wis.

Holstein Springers and heifers, car lots or less, priced reasonable. EDW. YOHN, Watertown, Wisconsin. 12-5

Holstein Herd Sires for sale or will trade for either grade or pure bred federally tested females. No. 1 Norrtk Star Gift Champion, a 4 year old son of Johanna Bonheur Champion. Dam, the great 1,000 lb. cow, Little Gift of Spring Valley. No. 2. King Fayne Star Pontiac Segis, a 4 year old son of King Segis Pontiac Count. Dam, Johanna Fayne Star, 31 lb. daughter of Sir Johanna Fayne. Come and see them or write WALCOWIS FARMS, Lake Geneva, Wis. 12-*

For Sale—Complete herd of pure bred Holsteins. 19 milking, all with good A. R. O. records. 14 head young stock. A fine opportunity for some one. Apply PAUL REED, Oconomowoc, Wis. 12-3

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS. Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

50 High Grade heifers, 15 Guernseys and 35 Holsteins from one to two years old. 28 open, 22 bred. Well grown and in good condition. Carefully selected from high producers. Price $40 to $90 each. SUNSET FARMS, Sunset Hills, Va. 10-3

Your choice twenty Registered Guernsey females. Herd sire, grandson Langwater Warrior. Must sell, need room. Bargains. GLENGERNSEY HERD, Long Prairie, Minn. 11-2

Five Registered Guernsey heifers for sale coming 2 years old. Sired by Upland's Challenge whose dam, Uplands Hulda, has 743 lbs. fat. They are bred to Cinderella's Fame of Mound City, a son of a 909-lb. cow. HOMER RUNDELL, Linwood Farm, Livingston, Wis. 10-Spl

Guernseys: Ten fresh or springers, with cow testing records, must be guaranteed free tuberculosis and abortion and priced right for cash. J. HOWARD CLIFFE, Ivyland, Pennsylvania. 12-*

Registered Guernsey Bull Calf. A. R. dam, $55.00. B. McADAM, Mosinee, Wis. 12-2

Ayrshires—Cows, heifers, bull and heifer calves. Will be sold at a bargain. CHAS. DUNBAR, Elkhorn, Wisconsin. 12-2

For Sale—21 two year old high grade Jersey heifers. Pasture bred to registered Jersey bull. I. F. SUTER, Box 242, Palmyra, Missouri. 9-4

Jersey Bulls—Ready for service. Reasonable prices. RAVINE FARM, Highland Park, Illinois. 10-4

STOCK WANTED

Wanted—Carload of Holstein heifers. Give full description, age and price per head. J. A. DONOHOE & SON, Yankton, S. D. 11-2

Wanted—Guernsey sire, 14 months to 4 years old, with type and production. Send pedigree and photo to BOX 306, care Hoard's Dairyman.

Wanted—Eight or ten good Guernsey cows. ENEWALD BROS., Muskegon, Mich., R. 8. 12-2

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

Holsteins-Guernseys; High class cattle, any age, bought on commission. A. F. BENNETT, Pewaukee, (Waukesha County), Wis. 10-4

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. BECKENNELS, H D W, Herrick, Illinois. 9-4

Pair Guaranteed fox, coon hounds, $75. HERBERT REEVES, Marshall, Ark. 10-3

Scotch Collie Pups, herd driving; males $8. Females $5. Also excellent male one year old, $12. JAMES FARRELL, Bellevue, Iowa.

POULTRY

Single Comb White English Leghorn cockerels. Ever laying strain **$1.50 each.** W. F. VIEREGGE, Sparta, Wisconsin. 12-2

MACHINERY

Want to Buy a hay bailing press in good condition. Give name, make, model, and year, with price in first letter. BOX 266, care Hoard's Dairyman. 8-*

For Sale—One large size, brand new Delco Light unit. Suitable light all buildings, furnish power. Guaranteed. Cost $600. Sell $285. DWAYNE WHITE, Elkader, Iowa. 11-2

For Sale—Three unit De Laval Milker used only few months. Cheap. BASIL LAKE, Collierville, Tennessee. 12-2

For Sale—One single unit for Perfection Milking Machine. Perfect order. $45.00. JOHN SWIGART, 41 Scottwood Apts., Toledo, Ohio.

Wanted—A used milking machine. State make, model, length of time used, amount of equipment with it and price. Address P. O. BOX 519, Charles City, Iowa.

For Sale—Perfection double unit milker complete in original crate $150.00. Address C. H. BOECK, Nora Springs, Iowa.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

TOBACCO

Homespun Tobacco, Chewing, 5 lbs. $1.75; ten $3.00. Smoking, 5 lbs. $1.25; ten $2.00. Pay when received, pipe and recipe free. FARMERS' UNION, Paducah, Ky. 9-4

Homespun Tobacco—Chewing, five pounds, $1.75; ten, $3.00; twenty, $5.25. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Ky. 11-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Alfalfa Hay—For sale. Choice pea green second and third cutting. Weights and grades guaranteed. Write for delivered prices. ALBERT MILLER & CO., 192, No. Clark St., Chicago, Illinois. 12-*

SEEDS

Dallas Grass; Carpet and Lespedeza seeds; green winter grazing; permanent pasturage. 3-5 hay cuttings and seed crops. Get bulletins. SIDNEY J. WEBER, Baton Rouge, La.

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 617-1st Ave. No., Minneapolis. 12-19

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

SWINE

Duroc Boars for Sale—Sensation's Type. 1st prize Sr. boar pig Wisconsin State Fair 1924. Also spring boars. Priced right. BRIAN L. RUNDELL, Livingston, Wisconsin. 11-2

Durocs—Healthy, vigorous spring pigs, both sexes. Shipped on approval. WALTER SCHEDLER, Cocksackie, New York. 12-2

FOR RENT

For Rent—175 acre dairy farm, near Chicago, with 75 Holstein cattle. Small payment. Possession any time. Address BOX 299, care Hoard's Dairyman 11-3

For Lease—Model dairy farm fully equipped for certified milk 18 miles from Washington. 200 cow barn capacity. Railroad station ¼ mile from barn. Ample tenant houses. 100 acres of alfalfa. Annual milk receipts $40,000. Could easily be increased 50% to 100%. Leasing farm on account of death of owner. Executors can offer attractive proposition to experienced dairyman with capital. G. M. HUTCHISON, Sunset Hills, Virginia. 11-2

Men Wanted—Practical dairy farmer. Share plan A-1 farm about 40 miles from Chicago on concrete highway. Applications only from experienced dairy farmers, financially responsible, good reputation, strong references. Excellent chance for right party. Address BOX 305, care Hoard's Dairyman.

FARMS WANTED

Wanted—Large going farm completely equipped; full particulars first letter; name price and whether exchangeable for city income property. Address BOX 277, care Hoard's Dairyman. 9-*

FARMS FOR SALE

$4,500 Income—High Grade Farm, 121 Acres; 500 Poultry, Auto and auto truck, tractor, 3 teams, 4 cows, gas engine, valuable machinery, wheat, hay, fodder; attractive 7-room brick house, large porches, big basement barn, other buildings, valued over $5,000; 100 acres rich loam fields, alfalfa and other bumper crops, pasture, 6 acres heavy timber and wood; short run city over improved roads, good stores, schools, etc. Owner's business elsewhere, $7,500 take all terms. Picture and details page 97 New Illustrated Catalog, 152 pages money-making farm bargains. Copy free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

Southeast Missouri—"Where Everything Grows". Population increased 50% past year. A wonderful valley of alluvial soil and untold opportunity for the farmer and investor. We sell our own land in any size tracts. Terms. Write DAN AND LEO BECKER, Dept. B, 5126 South Broadway, St. Louis, Mo. 11-2

For Sale—Improved farm and cutover lands. Come and see crops growing now. Dairy industry has increased 500% in one year. Any size farm wanted. Write owner. H. B. OWEN, Pontotoc, Miss. 11-4

Farm for Sale or Trade—430 acres, one mile from county seat and concrete highway. Write for particulars. J. C. CHAPMAN, Owner, Vienna, Ill. 11-2

Big Bargains in improved farms. Shawano, Oconto and adjoining counties, the alfalfa, potato and dairy section. Write for free catalogs. Deal direct. THE WISCONSIN FARMERS & HOMESEEKERS SERVICE BUREAU, Marshfield, Wisconsin

Farm Bargain—1,060 acre farm, good soil, suitable for general farming, stock, dairy and truck farm, nearly all in cultivation and pasture. Lands lie well, with 135 acres fine creek bottom land. Well watered with ever running branches. Six room dwelling, with barns, one the best cattle barns in the state and other outbuildings. Two 200 ton concrete silos, 12,000 gallon concrete water tank on top of one. Farm located on good roads, 15 miles from Atlanta, the metropolis of the south and furnishing a good market. Two and one half miles from stations on Southern and Seaboard railroads, between Atlanta and Birmingham, with Seaboard road running through farm. This gives ample shipping facilities, or close enough for trucking, making it the best stock, dairy or truck proposition to be found. Sell as a whole or subdivide. No incumbrance. For prices and terms write. JAS. T. ANDERSON, Marietta, Ga., Owner.

260 Acres; higly productive; town ¾ mile; 2 residences; barn; silo; orchard; beautiful lawn; well fenced; water piped to every field; buildings in excellent repair; 100 acres alfalfa; paved road; city electricity; $135.00 per acre. Possession any time; good terms to responsible parties. Owner, H. M. WEDDING, Springfield, Ohio.

Owner of Good Central Wisconsin Farm will give right man exceptional opportunity with small payment down. E. HAWKS, 4406 Pabst Ave., Milwaukee, Wis.

Wisconsin Dairy Farm near Milwaukee, first class buildings, excellent soil, high test dairy herd; real bargain. E. HAWKS, 4406 Pabst Ave., Milwaukee, Wisconsin.

Virginia—Modernly equipped dairy farm 275 acres in richest limestone section of the state, natural alfalfa land; 35 miles from Washington; 90 acres in blue grass; running water in every field. Modern residence and large horse and cow barns electrically lighted. Three tennant houses and all necessary outbuildings. LIMESTONE FARM, Leesburg, Virginia.

Ideal Stock and Dairy farm, Price county, Wisconsin, on state highway, six miles from County seat; 200 acres, 115 under cultivation, balance timber and cutover land; barn 50x100 and two-story residence and all necessary outbuildings; would consider a trade for desirable city property. This farm can be sold with or without personal property. Write for terms. C. C. KELLEHER, Phillips, Wis.

160 Acre Improved stock or dairy farm, $35. CLAUDE AUSTIN, Blue Mound, Kans. 12-2

200 Acre stock and sheep farm, well improved and equipped, good buildings; 3 miles to town and Mille Lacs Lake; $75.00 per acre, your own terms. FIRST NATIONAL BANK, Milaca, Minn. 12-4

Farm and Jersey Herd for sale or exchange on income property. Ideal farm; 195 acres; fully equipped; fine buildings; 200 tons alfalfa, 10,000 bushel oats, 195 tons ensilage; 150 pure bred cattle. Owner, H. M. WEDDING, 702 Northern Ave., Springfield, Ohio.

200 acres fruit land; level, timbered, ½ mile front on Atlanta and Greenville S. C. Highway; 1¼ miles from Southern R. R. station; no mosquitoes or malaria; 1,000 ft. above sea level; good schools and churches. S. B. DAVIDSON, R. 2, Clarkesville, Ga.

2,300 acres in the South's most favored section.1,500 acres level, rich corn land cultivated, two dwellings, 25 other buildings. Fine location, good investment, excellent cattle proposition. $37.50 acre. FRANK W. COLE, 121 Court, Memphis, Tennessee.

For Sale—Nice 142 acre farm buildings, near town railroad, Macadam road, possession particulars. Address OWNER BOX 28, R. 4, Warrenton, Va.

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

208 Acres 1¼ miles from good railroad town, 100 acres in good cultivation; very fine Bermuda pasture; will run 30 dairy cows. Nearness to Ft. Worth and Dallas insure a first class market. Texas with her evergreen pasture and cotton seed products can produce milk cheaper than the North. Price of this farm, $30.00 an acre, ½cash. HENRY JACKSON, Boyd, Texas.



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Wanted—Man who understands all work on a retail dairy farm. Wages $50 a month. J. R. TRIPP, Nine Mile Falls, Wash.

Wanted—An experienced creamery man for our bottle house. Steady, dependable, intelligent and a hard worker. Must have dependable references. $100 per month and board, also bonus if satisfactory. FITCHOME FARMS CO., Aurora, Illinois.

Fireman, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?) Railway Association Desk W-5, Brooklyn, N. Y. 12-4

Wanted—Single man, good milker to work on a small dairy farm (Guernseys). Must know how to feed cows. Must be nice, clean fellow. $50.00 per month and a good place. FRED BRANDT, Fennimore, Wisconsin. 12-2

HELP WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted—Experienced dairyman; full management, new modern dairy. R. B. FUNK, Poteau, Oklahoma. 10-3

Wanted—A man and wife, no children. Man to take charge of Guernsey herd, wife to cook for small family. Two miles from town, modern improvements, De Laval Milker, etc. Address BOX 71, Lexington, Kentucky. 10-3

Wanted—Herdsman and Barn Foreman for modern dairy farm. Must assume responsibility for proper feeding and testing of large herd of pure bred Holsteins. Modern house, good wages. In answering state experience. Address JOSEPH H. BREWER, Care Grand Rapids Savings Bank, Grand Rapids, Mich.

Married Man Wanted on dairy farm. Must be good dry hand milker, woman to help in milk bottling department and can also help milk. House to live in, etc. State wages. References. Address BOX 304, care Hoard's Dairyman.

POSITION WANTED

Wanted—Position as herdsman, Holsteins; married, 28, life experience breeding, developing, good records, 7 day and yearly; best references from present employer and others. State salary and particulars. Address BOX 296, care Hoard's Dairyman. 11-2

College Graduate wants position as Manager or Superintendent of first class dairy farm. Age 40. Life experience with some of the best herds in the country. Thoroughly understands the breeding and raising of pure breds, testing, showing, etc., and general farming in all its branches. Guernseys preferred. Available after Dairy Show. First class references. Only first class proposition considered. Write BOX 279, care Hoard's Dairyman. 10-spl

Position Wanted as dairyman, herdsman, or farm manager. Am experienced feeder, and producer of clean milk. 10 years experience as farm manager. Prefer institution work. ARTHUR MAGEE, Ft. Apache, Ariz.

Position Wanted—Middle aged man, experienced, feeding, milking test cows. A 1 milker; after Oct. 5. Address BOX 307, care Hoard's Dairyman.

Storage Bin for Lime

The use of limestone on the farm land of much of Ohio has become so essential, says E. E. Barnes, soils specialist at the college of agriculture, that farmers in some sections have built limestone storage bins at their railway stations, so that the lime may be available at all times.

The value of the bins is largely that they allow the farmers to haul limestone when it is most convenient for them to haul. The ground limestone may be shipped from the quarry any time during the year, loaded from car into the bin immediately upon its arrival and hauled by the farmer when he wants it. The use of the bins, therefore, is a convenience for the farmers, the limestone producing companies, and the railroads.

Agricultural engineers have estimated that, where 500 tons of ground limestone are used during a year by a community served by one bin, the total cost per ton for the use of the bin is $1.08 and only 75 cents per ton if 1,000 tons are handled during a year. This cost includes interest in the investment (cost of the bin), depreciation on the bin, labor, manager's fee, and the necessary supplies.

Plans for bins to meet the need of a community may be secured from the Agricultural Engineering Department of the Ohio State University, Columbus, Ohio.

New Texas Record Set by A. & M. Cows

The Holstein production record of Texas was broken twice by animals in the College dairy herd the past year.

The mature cow record was first broken by Maude Posch Queen 2nd with a production of 21,916.6 pounds milk and 665.36 pounds fat, and soon after this record was bettered by another cow in the herd, Abbie Cornucopia Colantha Tinta, that set the state record at 22,733.7 pounds milk and 690.53 pounds fat.

In the same period of time a Jersey cow in the A. & M College herd bettered the record of the college animals by producing 749.83 pounds fat which is nearly 60 pounds fat more than that produced by the Holstein making the state record. This cow was Kelberg's Jacoba Pogetta.

Texas. GEO. P. GROUT.

Wayside Musings — MEETING THE TRUTH

JOSEPH S. MORRIS, WISCONSIN

TRUTH—how appealing it is! It is our proud boast that we favor the truth. We imagine that we always face the truth and act on what the truth yields up. But how easy it is to yield just a little. Facing the truth may mean the loss of a friend; some pet idea of ours may receive a jolt; facing truth may cost us a price we are not willing to pay. We are so human and it is so easy to go along accepting untruth or half-truth. We do not wish to have our pet habits upset.

Suppose we use a common experience of life to illustrate what we are driving at. Walking along the road or street it is quite a simple matter to slip up a side street or take a by-road to avoid meeting someone we do not especially care to meet. To use an expression which has become common since the coming of the automobile, we detour.

If you and I were to meet a new truth or a new expression of truth along the road of life tomorrow, how would we act? Would we go right up and extending the hand in friendly fashion say, "I am glad to know you?" Or would we detour to avoid the meeting and cling to half-truth or untruth?

This is really quite a searching question and much depends upon the answer we get. The great Master Truth Teacher once said: "And ye shall know the truth and the truth shall make you free." And that is just what knowledge of truth does—it sets us free. One of the happiest feelings that ever comes to men and women in our human affairs is to gain some new grip upon truth. It is sometimes attended with discomfort. It may mean the change of habits and set ways of thinking and doing, but in the end life is so much better and finer. We know that our children are going to get some hard knocks from life as they struggle to discover truth but we do not, if we are wise, try to prevent their learning wholesome truths. Nor should we, as men and women, seek to avoid the truth. Every mastery of truth, like the tedious toil up a mountain, leads us to a higher point and a broader view.

There are so many ways in which we might discuss this matter. How often we find that there is some person we hold to be unfriendly to us. We carry the thought of their enmity around with us and as we think about it it grows upon us. What is the truth of the matter? Have we gone and had a heart to heart talk with the person? Have we tried to work with him in some good cause? It may be that the very person we are thinking of as an enemy may be shy, timid, wondering how he can get acquainted with us. Put any two persons to working together in some good cause and it is remarkable what unsuspected good qualities they will discover in each other. It comes because they learn the real truth about each other. After all, we are all of us made up of a number of differing qualities.

I once saw some wax figures of great persons. They were likenesses of those great persons, dressed in the characteristic garb of the men and women they were portraying. There was Lincoln, and Bismarck, and Gladstone, and Disraeli, and Garibaldi, and many others. Now these figures did not help me to know these great personages. I had to know how they lived and what they thought, the truths they loved, the work they did before I could really know the truth about them, and it was a long and tedious process because there were men of differing viewpoints who had written about them.

The quest of truth is a life-long process. We cannot suddenly turn a corner and come face to face with all the truth. We shall only know so much of truth as we make an honest effort to get hold of and apply. Happy are those who are always facing the sunlight, eager to know the fullest truth. Your life is such a wonderful thing. There is so much that is wise and good and beautiful and true, if only you will walk the road of life with open mind and heart.

Kansas Dairy Congress

HOARD'S DAIRYMAN:—New officers, the first permanent staff, were chosen at the closing session of the Kansas Dairy Congress, held during the Kansas Free Fair at Topeka. They were president, I. D. Graham, assistant secretary of the Kansas State Board of Agriculture; vice-president, Ira Romig, a Topeka dairyman and prominent in the state as a Holstein cattle breeder; secretary, H. T. Morrison of Topeka.



GUERNSEY COW, GALAXY'S FAWN
Circle W Farm in Ohio, owned by Walter C. White, and managed by Robert S. Martin, has produced another class leader record on their extensive breeding plant up in the Chagrin Valley. Galaxy's Fawn takes eighth place in class D, with her production of 14,457.5 pounds milk and 787.65 pounds fat. Her average test was 5.45 per cent. That she was a persistent producer is evidenced by the fact that she produced between sixty and seventy-one pounds fat during each of the eleven full months of her test period.—The American Guernsey Cattle Club.

The new "Dairy Congress", although operating under only temporary organization until this meeting, proved itself of value by bringing to the state some of the best thinkers on farm matters to study conditions and give the benefit of their observations and conclusions to the thousands who heard or read them in connection with the Free Fair. The shortcomings of the state, as well as its advantages, were pointed out in no uncertain way by one of the speakers and the tenor of all discussion was constructive and toward some definite objective.

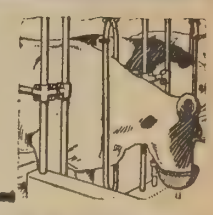
Hon. Frank O. Lowden, president of the Holstein-Friesian Ass'n of America, was the leading speaker on the opening day. Following him during the three midday programs were such other men of agricultural prominence as Hon. M. D. Munn, president of the National Dairy Council; Dr. C. W. Larson, head of the newly created Bureau of Dairying of the U. S. Dep't. of Agriculture; Pres. William Jardin of the Kansas Agricultural College; Hon. E. T. Meredith, formerly secretary of the U. S. Dep't of Agriculture; Senator Arthur Capper, head of the "Farm Bloc" in Congress; Jos. H. Mercer, live stock sanitary commissioner of Kansas and Gov. J. M. Davis, the first real farmer governor Kansas has had in over a quarter of a century.

Kansas. THEO. W. MORSE.





WM. LOUDEN
Exhibited in 1907 the first all steel stall ever displayed at a National Dairy Show.



Louden Water Bowls increase milk flow within 24 hours. Lengthen the lactation period. Quickly pay big profits.

Keep Cows Comfortable—Increase Milk Flow

Good dairymen realize that the capacity of a cow to produce milk is governed very largely by her state of health and condition of comfort. Many an apparently mediocre dairy cow has been revealed as a high producer by a change of ownership, presenting the cow with more comfortable conditions under which to work and make milk.

From Ocean to Ocean and from Lakes to Gulf, thousands of practical dairymen are making extra milk profits from their cows, every year, as a result of installing Louden Steel Stalls and Stanchions. Their cows at the same time have a greater measure of protection against disease while much less time is required to take care of them.



Louden Manure Carrier—head and shoulders above any other carrier made.

The Louden Line also includes Hay Unloading Tools, Barn and Garage Door Hangers, Cupolas, Hog House Equipment, "Everything for the Barn."

Get the Most Out of YOUR Cows

Maximum comfort—"pasture comfort"—in the barn can be obtained only with Louden Steel Stalls and Stanchions.

Louden Swinging Stanchion holds the cow in her place yet allows her to get up and lie down comfortably, without lunging and struggling, without jamming her knees or bruising her shoulders. She can easily turn her head and card herself or lie with her head comfortably at her side. And the Louden is the only stanchion permitting the use of the High Built-Up Manger Curb, which prevents cows from nosing feed back onto the stall floor and wasting it in the bedding—a saving that counts up to many dollars in a short time.

Louden Stalls stand severe shocks and strains—do not get wobbly—outlast the barn. Made of Open-Hearth high carbon steel—strongest and best. Built with the famous Louden Interlocking Dust-Proof Coupling—a thoroughly patented Louden feature—smooth on top with no open crack to catch and hold dirt or disease germs.

Louden Steel Stalls and Stanchions were the first on the market and have been standard ever since. Selected by the U. S. Government. Write for illustrated printed matter and full details. Check the coupon.

Get Barn Plan Book—112 pages of practical facts that save money on barn building or remodeling. Illustrates 50 barns with floor plans. Check and mail coupon today.



The Louden Machinery Company
1209 Court St. (Est. 1867) Fairfield, Iowa
Branches: Albany, N.Y., Chicago, Ill., St. Paul, Minn.

LOUDEN
BARN EQUIPMENT

LOUDEN, 1209 Court St., Fairfield, Iowa.
Send me without charge or obligation:
[ ] Details on Louden Stalls and Stanchions.
[ ] Details on (what?).....
Name.....
Town.....
R. F. D..... State .....
I expect to build (remodel) a barn
(date).....for (how many)..... horses.....cows
[ ] Send me the Louden Barn Plan Book.

Clark County Fall Sale!

Of REGISTERED HOLSTEINS - NEILLSVILLE, WIS., OCT. 11th

Consisting of **20 COWS** and **TWO-YEAR-OLDS**, springing; **10 YEARLING HEIFERS** and **12 GOOD BULLS** mostly of serviceable age. These Holsteins are the best Clark County has ever sold, good typy dairy animals. Not consigned by breeders but picked by sale manager. Come to this sale and buy what you want and let us help you buy balance from our breeders up to carload.

JOHN WUETHRICH, Sales Manager, GREENWOOD WISCONSIN.

FOR SALE
Modern Demonstration Farm

Board of Education, Independent School District No. 27 will receive sealed bids up to 8:00 p. m. Monday, October 20th, for school farm W½ NW¼-36-56-20. Farm consists of 80 acres of fertile silt loam and peat, 67 of which are under the plow, balance in stump land pasture. Location 13 miles S. E. of Hibbing on gravel road opposite Little Swan Settlement.

THE FARM is splendidly equipped and modern throughout. All buildings are wired in conduit. House, barn and milkhouse piped for water. 3 miles of 4 ft. woven wire fence. 6,000 ft. sub-surface drainage tile.

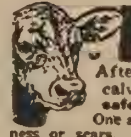
BUILDINGS: 7 room house (cost $8,000), 36 x 60 basement stock barn, 22 x 36 cement root house, 24 x 76 milkhouse, shop, granary and machine shed, 16 x 80 poultry house, 14 x 14 log ice house, 3, 6 x 12 portable colony houses.

List of machinery etc., to go with farm may be obtained from **CLERK OF INDEPENDENT SCHOOL DISTRICT NO. 27, HIBBING, MINN.** Purchaser has first opportunity to buy this year's crop at market prices.

CONSIGNED TO NATIONAL SALE

Proven son of 37th out of a 25 lb. dam with a 786 lb. year record made in 1911 in the Wisconsin Dairy Cow Competition. The dam of the bull we are consigning has three 30 lb. daughters including one who made 1,171 lbs. butter in one year and 36 lbs. in 7 days. This bull sires production and individuality. He has 7 daughters that average 20.23 lbs. butter and 408.3 lbs. milk in 7 days at an average age of two years and eight months. His offspring has won several prizes at both local and State Fairs. We are also consigning a 28 lb. daughter and a 21 lb. granddaughter of Terracelawn Hengerveld Segis, both with yearly records and good individuals.

D. W. HUENINK, Cedar Grove, Wis. WILL LOHUIS, Oostburg, Wis.



Horns Can't Grow!

After using TOMELLEM PASTE on calves up to 2 months old. An easy and safe way to do away with dangerous horns. One application enough. No bleeding, soreness or scars. Endorsed by county agents. Keeps indefinitely. Bottle sufficient for 50 calves. $1.00 Postpaid. At dealers or direct by mail from TOMELLEM CO., Dept. R, CALICO ROCK, ARKANSAS.



LUCY THOMPSON

Some Fire Don'ts

When I was only about six years old our barn burned down and in the fire we lost some stock. The money loss would not have meant much to some farmers but to us it was a tragedy and I can still see the haunted look on my father's face.

This incident, more than anything else, has always made me very careful about fires and I want to pass on to you some don'ts that I have recently seen. They are particularly appropriate now that we must be starting up the fires.

1. Don't put ashes in wooden containers.
2. Don't leave oily or greasy rags about.
3. Don't have accumulations of inflammable material in your cellar or attic.
4. Don't overload your electric light system.
5. Don't leave electric irons with the current on.
6. Keep matches away from children.
7. Avoid, as far as possible, the use of gasoline, etc.
8. Don't leave an open fire unscreened.
9. Never take a lighted lamp, match, or candle into a cellar where there is a smell of gas. This latter reminds me of a limerick which I thought very amusing:

"There was an old lady of Antrim
Who looked for a leak with a glim.
Alack and alas
The leak it was gas.
Let us now sing the fifty-fourth hymn."

Grape Juice

Grape juice is so useful a thing to have in the cellar that I hope you all have a good crop to put up, or that you will not find them too expensive to buy.

Of course we are all familiar with grape juice as a drink and there are many ways of changing it to make it attractive to a sick person who soon tires of having the same thing.

Another way of using it that I like even better is with ham. I take a whole ham or just a piece of one, parboil it in cold water to freshen it, and then put it in a pan for baking. I stick in the cloves on the fat side as usual (you can make these look interesting by sticking them in to make a pattern of some sort such as stars or crescents, or on the occasion of a birthday the initials of a person).

Then I pour over the ham about a pint of grape juice and let it bake slowly, covered, in this. A smaller amount will do and you can keep basting it. Pineapple juice is delicious for this purpose, too.

Here is a grape juice recipe that I like:

Wash and pick grapes off stems. Crush slightly and add water almost to cover. Heat slowly until it simmers, then strain through a double thickness of cheese cloth. Add one cup of sugar to one gallon of juice, scald bottles and corks, fill with hot juice, put corks in lightly, and heat with water at 180 degrees for 30 minutes. Tighten corks and when cool, dip in paraffin. I have often canned this successfully simply by sealing the boiling juice in well sterilized jars.

Indifference

There is something about a garden in late fall that is painfully lovely. It is shaggy looking, most always, and the weeds are there, and only a few things have retained their summer beauty. But there is a smell to the air that tells us to make the most of it for at best only a few weeks are left.

I was picking some cosmos only a few days ago when an airplane came flying and swooping over my head. Of course, I stopped and stared as long as I could see it and when I came in I hunted up this poem by Louise Driscoll. Several readers have asked for more poetry in the home section and I hope those will like this one called

Indifference

Over my garden
An airplane flew.
But nothing there
Either cared or knew.
Cabbage butterflies
Chased each other.
A young wren cried
Seeking his mother.
Gay zinnias
With heavy heads
Flaunted yellows
And mauves and reds.
A hummingbird
On late larkspur
Never knew
What went over her.
Crickets chirped
And a blinking toad
Watched for flies
On the gravel road.
They dont' care
How smart men are—
To go through heaven
In a flying car!
To a yellow bee
On a marigold
The adventure seems
A trifle old.

A Compliment to Our Women

I cannot tell you how pleased I have been with all the letters you have been writing to me lately. You said nice things—of course you would be too polite to do otherwise—but it was not that which pleased me most. It was the sincere wish you showed to get the best in life for your children for most of the letters lately have had to do with how to instruct children in the facts of life.

So pathetically many of the letters said, "I was not told anything and I do not want my children to have the experiences I had." In nearly every letter there was a note of apprehension that I longed to set at rest. We can only do our best, no matter how big or how serious the problem, and having done that let us be happy. Good spirits are so contagious and it is not the happy, bubbling child that is the child in mischief. So let us do what we can and then forget the worries.

I am proud of you for your intelligent interest in your children and your letters have made me feel much better acquainted with you. Write again.

It would not be fair to omit saying that the very first letter I got on this subject was from a man, presumably a Kansas father. I only wish that more men felt interested enough to co-operate in such problems.

Convenient Containers

I save all match boxes. These I cover with the more beautiful and artistic wall papers or with bright enameled paper, and sometimes put a little brass ring in the front of the sliding drawer. I cover the front and back of the little drawer. When I want the boxes for buttons or tape or hooks and eyes, I have the paper white and put ornamental lettering on, indicating the contents.

I find these boxes hold just about enough home-made candy to make a nice little present for a child. I find them immensely valuable for holding flower seeds of which I have so many kinds, and bulbs, etc.

They are handy for sending little things by mail, and are very pretty when daintily covered. One year I covered a lot of them and tied around them bright colored ribbons to match the paper. This ribbon, of course, remains a permanent ornament.

I also wash out at once, and keep, the paper containers in which the Dairymen's League ice cream is sold here. The little round containers, cylindrical in shape, vary in capacity from a half pint to a quart.

They are nice to pack cookies in for a lunch or to send away. They are strong and sanitary and are most convenient for holding all sorts of things. With holes punched in the top they make good flour sprinklers for pies. The edges should be gummed down with adhesive paper. They contain all kinds of spices (labeled of course, else you may do as I did the other day and liberally be-sprinkle a nice apple pie with black pepper instead of allspice) and as they are uniform, the shelf looks nice with them on it. Ornamental or plainly printed large labels can be cut from papers or soaked off from the paper containers.
—ELLEN DE GRAFF.

One Yard

Rastus was sporting proudly a new shirt when a friend asked: "Boy, how many yards does it takes for a shirt like that?"

Rastus replied: "Say, man, Ah got three shirts like this outa one yard last night."—Everybody's Magazine.

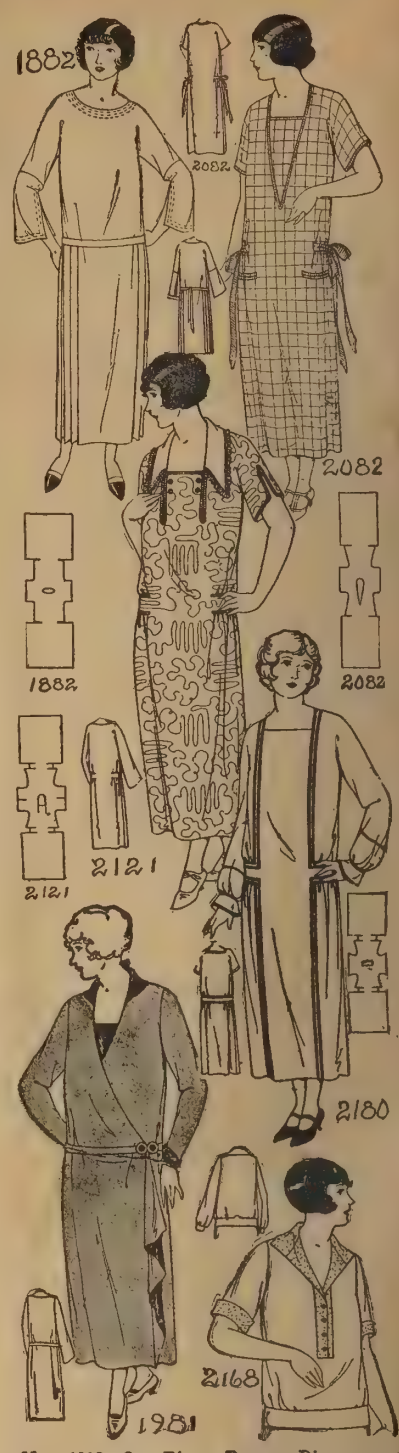
One housewife uses a piece of glass the size of her opened cook book to keep it open and protect it from being soiled.

A good wife is not a wife only, but a mountain of wealth; who possesses her is rich with her alone.—Proverbs of Spain.

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 1882—One-Piece Dress. Diagram explains simple construction. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3¼ yards 40-inch material.

No. 2082—Becoming Morning Frock. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅜ yards 36-inch material. Diagram shows how simple this dress is to make.

No. 2121—Jiffy Frock—can be made in an hour (see diagram). Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3 yards 36-inch material with ¼ yard 36-inch contrasting.

No. 2180—Smart Yet Simple to Make. Diagram explains simplicity. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3½ yards 36- or 40-inch material with 12¾ yards braid.

No. 1981—Slenderizing Lines. Cut in sizes 16 years, 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 requires 3⅝ yards 40-inch material with ⅞ yard 20-inch contrasting.

No. 2168—Popular Slip-on Blouse. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 1½ yards 40-inch material with ⅝ yard 27-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

The stove that has last year's soot still in its stove pipe has got a right to kick and refuse to draw.



WINSLOW
MILK BOTTLES

WINSLOW BOTTLES have big national distribution because they offer distinct advantages to milk bottle users.

They're built for Strength. The Winslow truss-shaped bottom is neither too heavy nor too light. Every point on any circumference of the bottle is uniform in thickness. And the Winslow annealing process insures maximum resistance to breakage.

Winslow bottles are crystal-clear and unblemished. They give you full credit for cleanliness, purity and richness of your product, and help to hold trade. **Write for a sample bottle and prices.**

The Winslow Glass Co.
741 Southwood Ave. COLUMBUS, O.

WINSLOW MILK BOTTLES ARE CARRIED IN STOCK BY THE FOLLOWING:

The Creamery Package Mfg. Co.
National Distributors Chicago, Illinois

Branches: Atlanta, Boston, Buffalo, Denver, Jersey City, Kansas City, Minneapolis, Omaha, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, St. Louis, Toledo, Waterloo, Iowa.

E. B. Adams Company, Washington, D. C.
Ohio Creamery Supply Co., Cleveland, Ohio
J. S. Rayl Company, Marion, Ohio
The E. F. Mangold Company, Dayton, Ohio
K. J. Madden, Cincinnati, Ohio
Lampton-Crane & Ramey Co., Louisville, Ky.





Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.
Electric Wheel Co.
31 Elm St., Quincy, Ill.

Friendly Talks for Farm Folks

We can't resist quoting the following from a classified honest-to-goodness ad: FOR SALE—One halter, one collar, and a dang good mare thrown in.

⚜

An old Chinese problem says that a tree blown down by the wind has more branches than roots. Think that over, you discouraged farmers.

⚜

To illustrate the fact that it is an ill wind which doesn't blow somebody good, it is reported that during the industrial depression in the East at present, with thousands of men in the towns and cities out of work, the fish-line factories are doing a land-office business night and day to keep up with orders. It seems that men go fishing when work is scarce, to keep themselves busy and not so blue, I suppose. And the folks with stock in the fish-line factories are reaping inflated dividends while the rest of the country is more or less down and out. Just one of those interesting cases of cause and effect with which this country is full.

⚜

Over at Richfield Four Corners at the approach of a sharp curve and open railroad crossing, there is a large sign which reads thusly: "If you make this curve and crossing safely, we congratulate you; if you fail to make it, telephone R123." A party of joy-riders one inopportune day became out of luck and managed to turn over on the curve and spill themselves all over the track in front of the Grand Limited. When the pieces had been swept up and the crowd had bethought themselves to get help, someone rushed to phone the ambulance, the doctor, the coroner, the undertaker and the garage. A little store adjoining the wreck had a phone, so several of the crowd rushed in there and demanded the numbers of the foregoing first aids. "Just call R123," said the store's lanky proprietor with entire freedom from excitement, "and you'll git Hen Bowers' ambulance; also Doctor Bowers; also Doc Henry Bowers which is our coroner on the Democratic ticket; also Bowers and Goodson, our leading funeral directors; and again H. B. Bowers, who runs the best garage and service station 'twixt here and Richfield." "You don't mean to say," said the motorists on 'phoning bent, "that this Bowers man will take entire care of this accident from A to Z?" "Yes, I do," answered the storekeeper tolerantly, "and into the bargain Hen is our postmaster, florist, and telephone exchange. Hen came here five years ago dead broke, but when he laid eyes on that crossing and curve out there, says he, 'This is the place for a live guy like me to settle. That crossing ought to be worth ten thousand dollars a year to the right person, if all competition is eliminated.' So Hen, he went to work and landed one office and then another, and he already had a doctor's diploma and had also undertaken more or less when younger, so take it altogether it ain't suprising that Hen is a rich man today as accidents seem to increase with gratifying frequency. Yes, sir—Hen is expecting to build a nice hotel over there by his garage if the curve and crossing accidents will give him time to 'phone to a contractor. You say five persons was killed and another probably done for? That's the way it goes. But you won't make no mistake in getting Hen to service 'em. He's the doggone best wart doctor and hoss trader and tire mender I ever knew. Just ring R123."

New York. HELEN S. K. WILLCOX.



Ready with your Kodak

And a split second is all you need for a picture you'll treasure for years. That's picture-making the Kodak way.

Autographic Kodaks *$6.50 up*

Eastman Kodak Company, Rochester, N.Y.

Sell More Butter and Cottage Cheese



Give Your Butter and Cottage Cheese a Real Sales Advantage

Pack your butter in Sealright One-Time-Use Paper Butter Tubs, and your cottage cheese, buttermilk, milk and cream in Sealright Liquid-Tight Paper Containers. Assures a sturdy, 100% leak-proof package. Sizes 1, 2, 3, 5 and 10 pounds capacity—also from ¼ pint to 1 gallon. More profit for you. Greater satisfaction for your customers. Millions used by progressive dairymen. No expensive butter crocks, cartons or parchment paper wrapping.

Sealright Containers are advertised regularly in The Saturday Evening Post and Good Housekeeping. People know them—*want them.* Write us for samples, or order through your jobber, today.

SEALRIGHT CO., INC., Dept. 637, Fulton, N.Y.

Also makers of Sealright Pouring-Pull and Ordinary or Common Milk Bottle Caps and Sealright Paper Milk Bottles



Sealright
Paper Butter Tubs

SALE ANNOUNCEMENTS

Oct. 4—Guernsey Consignment Sale, Sparta, Wis. W. H. Hanchett, Sparta, Wis., Sale Mgr.
Oct. 6—Holsteins. Wisconsin Dairy Show Sale at Waukesha, Wis. Wisconsin Holstein-Friesian Association, Managers.
Oct. 7—Holsteins. Hillsboro Holstein Ass'n., Hillsboro, Wis. Gus Knick, Sec'y.
Oct. 7—Guernseys. Norman E. Parsons, Danville, Indiana.
Oct. 8—Montgomery County Holstein Breeders' Ass'n. fall sale at Rockville Fair Grounds, Rockville, Md.
Oct. 8—Holsteins. Hickory Grove Farm's Second Annual Sale at Fairwater, Wis. W. J. Beilke.
Oct. 8-9—Mankato Holstein Farm Dispersal, 125 head. Mankato, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 8-9—Blue Earth Co. Guernsey Breeders' Assn. at Mankato, Minn. Dr. M. B. Wood, Sale Mgr.
Oct. 9—Second Annual Mississippi Valley Holstein Show and Sale at St. Louis, Mo.
Oct. 10—Holsteins. Second Annual Freeborn County Consignment Sale. E. G. Cort, Mgr.
Oct. 11—Holsteins. Clark Co. Holstein Sale at Neilsville, Wis. Jno. Wuethrick, Greenwood, Wis., Sale Mgr.
Oct. 11—Dr. H. P. Fischer Dispersal 75 Holsteins at Shakopee, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13—F. H. Bauer Dispersal 70 head Holsteins at Delano, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13-14—Holstein Dispersal Sale. Mrs. R. G. Douglas, Shirley Farms, Ft. Logan, Colo.
Oct. 13—Holstein Dispersal. S. W. Huff, Ludingtonville, N. Y. R. Austin Backus, Sale Mgr., Mexico, N. Y.
Oct. 14—Oscar W. Hanson, 65 Holsteins at Withrow, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.
Oct. 15—Jerseys. Dispersal Sale J. R. Woods, Austin, Minn. B. C. Settles, Sale Mgr.
Oct. 15-16—Guernseys. Consignment and Dispersal Sale. Lowell Gable, Paoli, Pa.
Oct. 16—Holsteins. S. C. Heeg & Sons, Howell, Mich. F. J. Fishbeck, Sale Mgr.
Oct. 16—Guernseys. West Salem, Wis. O. G. Clark, West Salem, Wis.
Oct. 16-17—Johnson County Holstein Co. Dispersion Sale, Warrensburg, Mo. J. L. Ferguson, Secretary.
Oct. 17—Bradford County 2nd Annual Registered Jersey Consignment Sale at Troy, Pa.
Oct. 17-18—Holsteins. Dispersal of Daisy Hill Herd, Chagrin Falls, Ohio.
Oct. 21—Guernseys. Goldmead Farm's annual sale of Registered Guernseys at Versailles, O. Spiller & Worch, Owners.
Oct. 21—Holsteins. Washtenaw County Sale, Ann Arbor, Mich. W. L. Spaulding, Sec'y., Chelsea, Mich.
Oct. 21—Holsteins. Ozaukee County Holstein Breeders' Sale, Cedarburg, Wis. Theodore F. Wittenberg, Sale Manager.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Oct. 23—Holsteins. Howell Sales Co., Howell, Mich. Guy Wakefield, Fowlerville, Mich., Sale Manager.
Oct. 24—Holsteins. Dispersion of the Spring Valley Stock Farm herd at Pittsford, Mich. Elisha Bailey & Son, Owners.
Oct. 28—The Walworth County (Wis.) Holstein Breeders' Association Sale. Ben Bachhuber, Sec'y., Elkhorn, Wis.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 29—The Rock County (Wis.) Holstein Breeders' Ass'n. Sale, Janesville, Wis. John W. Jones, Milton Jct., Wis., Sec'y.
Oct. 29-30—Holsteins. West Salem, Wis. Western Wisconsin Holstein Breeders' Cattle Sales Ass'n. O. G. Clark, Sale Mgr., West Salem, Wis.
Oct. 30—Holsteins. The Stephenson Co. Holstein-Friesian Ass'n., Chas. H. Rosenstiel, Sale Manager.
Oct. 31—Holsteins. Enock Carlson, Roberts, Wis.
Nov. 1—Holsteins. Place & Kellogg Dispersal, Dorset, Ohio. Managed by Ohio Holstein-Friesian Association.
Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 4—Walworth Co. Holstein Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 5—Holsteins. Rock Co. Holstein Breeders' Semi-annual Sale at Janesville, Wis. John W. Jones, Sec., Milton, Wis.
Nov. 5—Holstein Dispersal. Robert A. Ryan, R. 2, De Pere, Wis.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.

Eastern States Exposition

(Continued from page 325)

This heifer possesses a good many admirable points but could not win over the older cow for the premier honors.

The awards are as follows:

Holsteins

Judge: W. S. Moscrip, Minnesota.

Bull 3 yrs. old or over—Connecticut Reformatory on Fair Oaks Sir Homestead Darkness. Bull 2 yrs., under 3—W. S. Kellogg, Connecticut, on King Pietertje Ormsby Piebe 36th. Bull 1 yr., under 2—Hargrove & Arnold, Iowa, on Triune Ormsby Piebe 27th. Bull calf under 1 yr.—Hargrove & Arnold on King Piebe 28th.

Cow 5 yrs. or over—A. D. Bridges & Sons, Connecticut, on Maggie Ormsby Butter Girl. Cow 4 yrs., under 5— Mt. Hermon School, Massachusetts, on Mt. Hermon Colantha Phyllis. Cow 3 yrs., under 4—Hargrove & Arnold on Dorothy Ormsby Piebe. Heifer 2 yrs., under 3, in milk—F. P. Knowles, Massachusetts, on Sylvia Rosewood. Heifer 2 yrs., under 3, dry—Hargrove & Arnold on Siebe Artis Burke. Senior heifer 1 yr., under 2—C. P. Farrand, Connecticut, on Bell Hill Mugget. Junior heifer 1 yr., under 2—Mt. Hermon School on Mt. Hermon Clarissa. Heifer calf—F. P. Knowles on Pearl of Highlawn. A. R. cow—Pinery Farms, Ohio, on Ormsby Halinger Mechthilde. Cow 4 yrs. or over which has produced in official test of 300 days or over, fat exceeding by 25% the requirement to A. R. or R. of M.—Pinery Farms on Kismet Fayne of Valley View.

Graded herd and young herd—Hargrove & Arnold. Dairy herd—Mt. Hermon School. Get of sire—Hargrove & Arnold on get of King Pietertje Ormsby Piebe. Produce of Cow—Mt. Hermon School on produce of Miss Gladice Butter Boy.

Senior and grand champion bull—Fair Oaks Sir Homestead Darkness. Junior champion bull—Triune Ormsby Piebe 27th.

Senior and grand champion cow—Dorothy Ormsby Piebe. Junior champion cow—Pearl of Highlawn.

Jerseys

Judge: W. W. Yapp, Illinois.

Bull 3 yrs. or over—Twin Oaks Farm, New Jersey, on Fern's Wexford Noble. Bull 2 yrs., under 3—Twin Oaks Farm on East Lynne Prince. Bull 1 yr., under 2—Twin Oaks on Counterstroke. Bull calf under 1 yr.—Twin Oaks on Oxford's Wexford Noble.

Cow 5 yrs. or over—Twin Oaks on Fern's Oxford Diana. Cow 4 yrs., under 5—Elm Hill Farm, Massachusetts, on Xenia's Surprise. Cow 3 yrs., under 4—Rockclyffe Farm New York, on Toffee. Heifer 2 yrs., under 3, in milk—Elm Hill Farm on Spy Girl's Surprise. Heifer 2 yrs., under 3, dry—Hempstead Farms, New York, on Fern's Highcliff's Xenia. Senior heifer 1 yr., under 2—Twin Oaks on Fern's Oxford Columbia. Junior heifer 1 yr., under 2—Twin Oaks on Fern's Oxford Silver Thread. Heifer calf—Twin Oaks on Fern's Oxford Melodant. A. R. cow 4 yrs., or under—Pinnaclerox Farm, Connecticut, on Xenia Secret. A. R. cow 4 yrs. or over—Inderkill Farm, New York, on Sociable Sybil.

Graded herd, young herd, dairy herd—Twin Oaks Farm. Get of sire—Twin Oaks on get of Imp. Fern's Oxford Noble. Produce of cow—Twin Oaks on Produce of Fontaine's Crown Princess.

Senior and grand champion bull—Fern's Wexford Noble. Junior champion bull—Counterstroke.

Senior and grand champion cow—Toffee. Junior champion cow—Fern's Oxford Silver Thread.

Ayrshires

Judge: Lester Ortiz, New Jersey.

Bull 3 yrs. or over—Middlesex Meadows Farm, Massachusetts, on Imp. Auchenbrain Toreador. Bull 2 yrs., under 3—Middlesex Meadows Farm on Imp. Grange Gentleman. Bull 1 yr., under 2—Barclay Farms, Pennsylvania, on Strathglass Roamer. Bull calf under 1 yr.—Alta Crest Farms, Massachusetts, on Alta Crest Weather Vane.

Cow 5 yrs. or over—Alta Crest Farms on Imp. Holehouse Buttercup. Cow 4 yrs., under 5—Alta Crest Farms on Imp. Netherton Carmen. Cow 3 yrs., under 4—Alta Crest Farms on Alta Crest Spicy Queen. Heifer 2 yrs., under 3, in milk—Monstone Farm, Massachusetts, on Monstone September Morn. Heifer 2 yrs., under 3, dry—Barclay Farms on Barclay's Carnation. Senior heifer 1 yr., under 2—Barclay Farms on Barclay's Brown Betty. Junior heifer 1 yr., under 2—Barclay Farms on Barclay's White Flower. Heifer calf—Alta Crest Farms on Alta Crest Hillbrow. A. R. cows 4 yrs. or younger—Pennsylvania State College on Penshurst Marion. A. R.

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cow 4 yrs. or over—Alta Crest Farms on Barboigh White Legs 5th.

Graded herd—Middlesex Meadows Farm. Young herd—Barclay Farms. Dairy herd—Alta Crest Farms. Get of sire—Barclay Farms on get of Nether Craig Footline. Produce of cow—Barclay Farms on produce of Barclay's Jessie D.

Senior and grand champion bull—Auchenbrain Toreador. Junior champion bull—Strathglass Roamer.

Senior and grand champion cow—Holehouse Buttercup. Junior champion cow—Barclay's White Flower.

Guernseys

Judge: John Clark, Massachusetts.

Bull 3 yrs. or over—Emmadine Farm, New York, on Shorewod Resolute. Bull 2 yrs., under 3—Emmadine Farm on Florham Abbot. Bull 1 yr., under 2—Emmadine Farm on Banner Rose's Wrangler. Bull calf under 1 yr.—Emmadine Farm on Valiant's King.

Cow 5 yrs. or over—Emmadine Farm on Moss Raider's Primrose—Cow 4 yrs., under 5—Emmadine Farm on Beda's May Rose of Island Farm. Cow 3 yrs., under 4—Emmadine Farm on Mixter May Princess. Heifer 2 yrs., under 3, in milk—Emmadine Farm on Daylo Yuletide. Heifer 2 yrs., under 3, dry—Emmadine Farm on Foremost's Fashion. Senior heifer 1 yr., under 2—Emmadine Farm on Mixter Farm Golden Diana. Junior heifer 1 yr., under 2—G. M. White, New York, on Gayhead's Clematis. Heifer calf—Emmadine Farm on Resolute's Red Rose. A. R. cow 4 yrs. or under—Emmadine on Mixter May Princess.

Graded herd—Emmadine Farm. Young herd—W. C. White, Ohio. Dairy herd—Emmadine Farm. Get of sire—Emmadine Farm on get of Langwater Foremost. Produce of cow—Emmadine Farm on Produce of Yoeman's Mixter Diana.

Senior and grand champion bull—Shorewood Resolute. Junior champion bull—Valiant's King.

Senior and grand champion cow—Mixter May Princess. Junior champion cow—Gayhead's Clematis.

Manure Makes Potatoes

The great value of farm manure in potato culture was demonstrated perhaps as never before in Minnesota by a ten-year trial. Stable manure proved profitable in every case, reducing the growing cost per bushel. The growing cost in the course of the experiments was 69 cents a bushel of marketable potatoes when no manure was used; 30½ cents a bushel with 5 tons of manure to the acre; 27½ cents with 10 tons to the acre, and 22½ cents with 20 tons.

Where 5 tons of manure were applied each third year for nine years, the yield of potatoes in 1923 was increased 18.9 bushels for each ton applied; manure applied at the rate of 10 tons per acre gave an increase of 13.3 bushels for each ton, and at 20 tons an acre the increase was 10.9 bushels for each ton.

Among the other facts disclosed or emphasized by the investigations are the following:

That Green Mountain potatoes can be recommended as one of the best late varieties for north central Minnesota, and that Irish Cobblers out-yield all early varieties.

That immature seed has given fully as good results as mature seed and that seed grown on peat land has been fully as satisfactory as seed from mineral soil.

That the yield varies directly with the size of the pieces planted, whole tubers producing a larger yield than either halves or quarters.

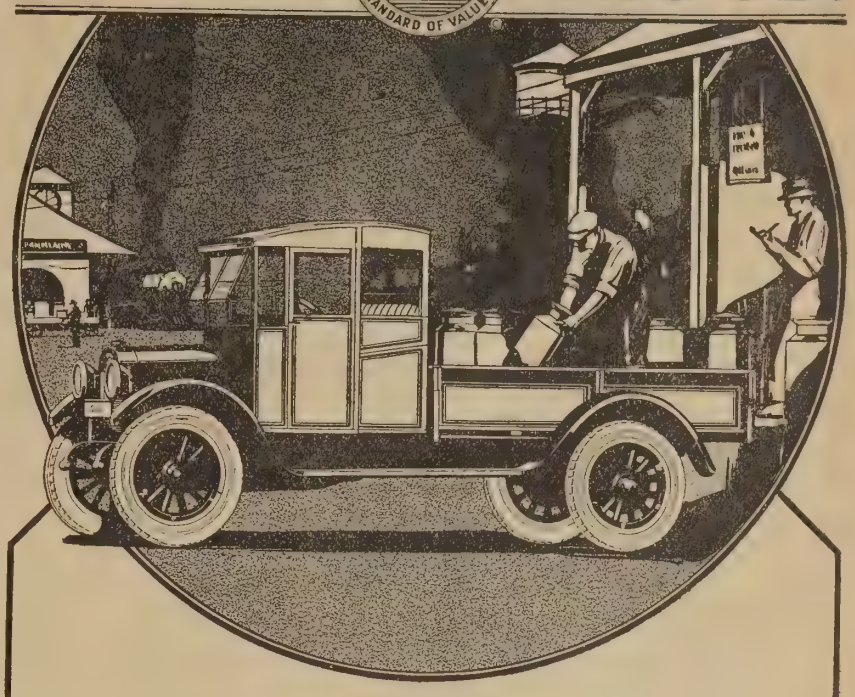
That in north central Minnesota the best time for planting is from about May 20 to June 10, early varieties for the summer market to be planted as early as weather and soil conditions will permit.

That net profit from potatoes must be sought in large yields to the acre rather than in large acreage with average yields.

That farmers growing seed potatoes for spring delivery should provide an outdoor cellar with ample ventilation and protection from frost; basement cellars usually being unfit on account of uneven temperatures.

Copies of Bulletin 212 that report the result of this ten-year experiment may be secured by writing the College of Agriculture, University Farm, St. Paul, Minnesota.

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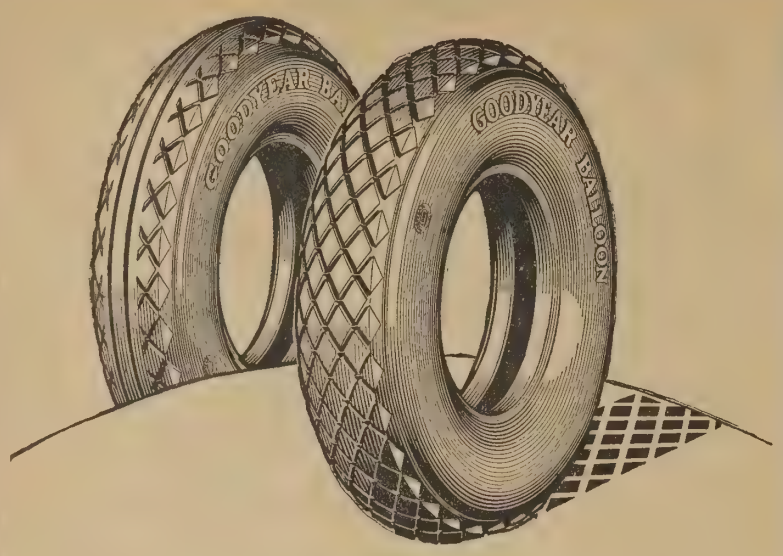
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He Recommends E-B Spreader to His Neighbors

If you are not quite convinced that the E-B Spreader is your best investment read this letter from H. S. Garman, Adeline, Ill., mailed under date of Jan. 5, 1923.

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THE E-B LINE

Breeding to the Breeders

(Continued from page 323)

ing process practiced so persistently has reduced our herd to descendants of three old cows which finally measured up to our requirements, and now when we are passing on to the sixth generation, we rarely find a cull."

"But, Mr. Dickson," I protested, "suppose your are able to choose your females for breeding in this manner, is it not possible to select an inferior bull and thereby, to a large extent, defeat or at least retard your plans for improved breeding?"

"Yes, and in this very thing many amateur breeders fail. There are three ways to select a bull. First, by his looks, or conformation; second, by his pedigree, or, in other words, by the character of his ancestry and relatives; and third, by his proven ability to sire daughters that are superior to their dams, and such a bull usually has both breeding type and pedigree.

"The fact that a sire displays good type does not prove that he has in his blood that quality that begets better daughters. The second method of selecting by pedigree and production records of ancestors and relatives is more dependable but not always certain. The third method of selecting a bull that has sired superior daughters *is sure.*

"If we find the bull's daughters to be uniformly better in production, vigor, and type than their dams, as determined in our herd, or on cattle of similar type and breeding we at once make him a herd sire, for we feel sure that this power to transmit these qualities is in his blood and he will exert this same influence on all of his daughters. Should he fail in this, no sentiment is spared in discarding him and his progeny.

"When this strong breeding power is brought together in both male and female for a number of generations, it becomes well fixed in the blood and our experience shows that it does not take long to greatly reduce the number of culls. And, on the other hand, each generation makes a surprising average gain in quality and production over the preceding generation.

"Breeding to the breeders who have a tendency to pull up is, therefore, our motto with the males as well as with the females, even though this method of selection is expensive and requires a great deal of time to wait and watch. By following this method there is no guesswork and this is why each generation of our herd is superior to the preceding generation."

The correctness of Mr. Dickson's theory on the selection of bulls is confirmed by actual results, as we note in the Jersey Bulletin of November 7, 1923, in a scientific study made by Professors C. W. Turner and A. C. Ragsdale of Misssouri Agricultural College, on the "Register of Merit of Jersey Sires Compared". This survey shows that the last two of Mr. Dickson's proven bulls stand fourth and seventh, in a list of 354 Register of Merit bulls, and these represent practically all of the last ten years' work of the herd. However, not contented with mere assertions, I said, "Mr. Dickson, can you provide me with records that will substantiate your last statement?"

"Yes, but I want you to understand definitely first of all that we have not sought for extremely high records. We are breeders and not feeders. Our cows get no particular petting beyond that received in the ordinary herd and the two world's record cows in our own herd have each done better afterward on common hard work. The records beginning with the highest record of the three old foundation cows and their offspring for five generations which I present here are made by the American Jersey Cattle Club under the supervision of the Oregon Agricultural College, and some of them are from animals sold to others who were eager for breeding power. They follow:

Generation	Age Yrs.	Age Mos.	Lbs. butterfat in 12 months
I	10	2	459.30
II	2	0	513.95
III	3	2	547.94
IV	4	2	729.97
V	1	10	860.08
V	5	10	844.64*

*In 305 days, Class AAA.

"While these figures are for the tops of each generation, this same proportional increase has been kept up throughout the entire herd and at present there is hardly a mature animal that will not produce 700 pounds fat in twelve months if given the same feed and care that officially tested cows usually get."

I asked a dairyman of national repute, who is acquainted with all the breeders of the country, in what respect Dickson differed from most other breeders. His reply is worthy the consideration of every embryonic dairyman. He said, "Dickson has a definite goal in mind, aiming at a development of a high uniform average for the whole herd instead of a few outstanding individuals. He is marshalling all natural forces and making use of all scientific information to accomplish this end and is ever moving to higher levels. While some breeders occasionally hit the right combination in producing a high record animal, Dickson is obtaining his in increasing numbers by having laid his foundation with scientific accuracy.



HOLLOW TILE BLOCK MILK HOUSE ON FARM OF EMIL ANDERSON, MICHIGAN. CONCRETE FRAME FOR HOTBED IN FOREGROUND

POULTRY On The DAIRY FARM



O. A. HANKE

Does a Farm Flock Pay?

Interest in farm poultry was never greater than at the present time. One need only drive a short distance through the country to become convinced of this fact. Colors are still mixed on some farms but a goodly number of them are now on the straight flock basis. Improvements made in scientific feeding, breeding, culling, and housing account for this great improvement.

A flock of hens is a very valuable asset to any dairy farmer. He should consider a flock of from two to five five hundred layers as one unit of a well diversified farm. The dairy farmer has the land, the soil, and the range. He is in a position to grow a great deal of his own feed. If he carries a good sized flock of laying hens as a side line, he has the added advantage of feeding his own feed upon his own place, thereby securing an additional profit from it.

Although great profits are made by small poultrymen with restricted range and purchased feed, the dairy farmer is in a more enviable position to secure profit with cheap feed secured largely by the hen herself. The hen has proven to be a great scavenger. Many farmers overestimate the hen's ability as such and do not add enough feeds to her daily diet to supply a well balanced ration which is so necessary for egg production.

Poultry makes the greatest spread of profit and quickest turnover of any branch of live stock farming. One new unit of poultry can be produced in six months while it takes more than a year to produce a new unit of any other branch of live stock. A hen consumes only seventy-five to ninety pounds of feed during a producing year while the dairy cow consumes several times that amount and perhaps not net as much profit as one hen.

The following table gives the relative feeding efficiency of farm animals. In this table the relation of feed consumption to egg production is based on the low average of 100 eggs per hen per year.

One hundred pounds of digestible matter produces:

13.9 lbs. milk worth 2c per lb.	$4.17
13.5 lbs. steer (live weight) worth 9c per lb.	1.215
13.9 lbs. sheep worth 7c per lb.	.973
30.4 lbs. swine worth 9½c per lb.	2.888
19.6 lbs. fowl worth 20c per lb.	3.92
22 lbs. eggs worth 27c per lb. (40c per doz.)	5.94

The rapidity with which the feed fed into poultry will secure a cash return, the comparatively short time in which the working units may be replaced, the slight capital involved in any one unit, and the fact that hens are the most efficient users of the feed consumed, all combine to make this branch of farming a matter of serious consideration to the dairy farmer. The rush season in poultry work comes during the winter and early spring months when the dairy farmer has little to do, other than the general chores. Chick brooding work is usually well under way when the spring work begins. During the summer the pullets will grow under hopper feeding quite well and the layers need little attention save periodic cleaning of the quarters, possibly on rainy days.

Anywhere from 200 to 500 layers is considered a fairly satisfactory unit. Any farmer who keeps poultry as a side line must consider which will be the most economical unit for him to keep. A flock of 200 ought perhaps to be a minimum. Little more equipment is needed for 200 than for 100 to 150. The farmer with a flock of 200 can ship eggs in 30 dozen cases and secure better prices at the large markets. With good organization and a 10-hour day, it is reasonable to estimate a 200-hen flock on the farm should not occupy an able-bodied person more than three hours daily the year round as a general average, while 4½ hours daily should well meet the requirements of a 400-hen flock. On a labor income of $2 per hen that would mean an annual income of $400 for a three-hour day or $800 for a 4½-hour day. Reports from demonstration farms in Missouri show that a farm flock which will average 103 to 132 eggs per hen will give a labor income from $2.44 per hen to $3.76 per hen. (From labor income had been deducted all expenses other than those of the labor.)

The poultry industry has been filled with talk of overproduction. The spring of 1924 saw more baby chicks produced than ever heretofore. Today the reports state that the pullet crop is short. The unfavorable spring weather made chick raising a serious problem to the beginner this spring.

Nineteen hundred and twenty-five promises to be a very profitable year for the poultryman. Eggs are very scarce now on the city markets and threaten to be less plentiful this fall and winter. A long, cold winter will boost egg prices to unusually high points.

Nearly every farmer today has 75 to 200 pullets growing on range whether it be the range around the farmstead or an individual range farther away. These pullets will spell profit or loss this winter. With skim-milk as a by-product of the dairy, the dairy farmer should never experience any trouble with his pullets. A fall molt is unnecessary. A little scientific attention at this time will aid materially in producing a fine pullet.

Bulletins of the Week

Vitamins in Live Stock Feeding, by H. H. Mitchell and M. Helen Keith. Circular 282, Illinois Experiment Station, Urbana, Ill.

Sunflowers as a Silage Crop for Dairy Cows, by W. B. Nevens. Abstract of Bulletin 253, Illinois Experiment Station, Urbana, Ill.

Poultry Houses of Concrete, published by Portland Cement Association. Address District Office nearest you for free copy.

Minnesota Plan for Marketing Eggs and Poultry, by E. C. Johnson. Special Bulletin 86, University of Minnesota, University Farm, St. Paul, Minn.

Increasing Farm Earnings by the Use of Simple Farm Accounts, by H. C. M. Case and M. L. Mosher. Bulletin 252, Illinois Experiment Station, Urbana, Ill.

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Meat curing results prove "there is a difference"

Salt is used in meat curing to prevent decomposition. Colonial Special Farmer's Salt dissolves, penetrates and begins its work the moment it is applied. It penetrates through every fibre. The meat is evenly cured—firm and tender—all its original color and flavor retained.



Colonial Special Farmer's Salt is porous—flaky. Unlike ordinary salt, it dissolves instantly and completely. A 70-pound bag is as big as 100 pounds of ordinary salt. The bags make good toweling.



"There is a difference"

No. 1 microphoto shows ordinary salt. The hard cube-like shapes cement together, harden and cause salt crust. No. 2 photo shows Colonial Special Farmer's Salt. Note its soft porous form; dissolves instantly—penetrates evenly—never hardens. In stock feeding, won't cause sore tongue.

Get This Free Book

Send for "New Truth About Salt." Gives information on home curing, feeding, etc.



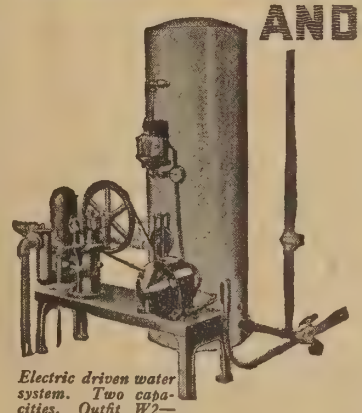
THE COLONIAL SALT CO., *Dept. 23*, AKRON, OHIO

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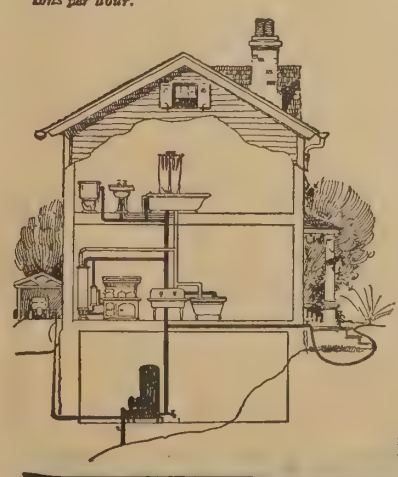
Colonial Special Farmer's Salt

"There's a Colonial Salt for every purpose"

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Electric driven water system. Two capacities. Outfit W2—180 gallons per hour. Outfit V2—360 gallons per hour.



Health and Happiness —from Running Water

Lack of running water is an unnecessary handicap on the health, comfort, good looks and happiness of any family.

A Goulds pumping system will supply all your needs for years for a few cents a week. It will pay for itself in 12 months as a time saver, and solve your water problem for once and all.

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Goulds Pumps and Water Systems come in various types, sizes and capacities to meet every need of farm or suburban home.

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So soothing to burns

APPLIED promptly to a burn, Gombault's Balsam first drives out the fire and soothes the intense pain. Then its antiseptic qualities prevent infection and promote quick healing.

The standard remedy for bruises, cuts, sprains, strains, backache, sore throat, colds, muscular and inflammatory rheumatism, sciatica and lumbago: $1.50 per bottle at druggists or direct upon receipt of price. A little kills a lot of pain. The Lawrence-Williams Co., Cleveland, Ohio.

GOMBAULT'S BALSAM
HEALING *and* ANTISEPTIC



ABSORBINE
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Reduces Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Boils, Swellings; Stops Lameness and allays pain. Heals Sores, Cuts, Bruises, Boot Chafes. It is a SAFE ANTISEPTIC AND GERMICIDE

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ABSORBINE, JR., antiseptic liniment for mankind, reduces Strains, Painful, Knotted, Swollen Veins. Concentrated—only a few drops required at an application. Price $1.25 per bottle at dealers or delivered.
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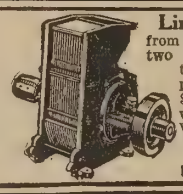
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from factory to farmer. Price two ton, $250.00. Reasonable terms. Capacity two tons per hour. Also three ton $295.00. Why pay more when you can buy direct. Write us for free literature.
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Good appetite
Good digestion

MORE MILK

GOOD HEALTH, good appetite and good digestion are the essentials of a good milker.

Every cow in your herd can be put in milking trim with a course of

Dr. Hess Stock Tonic
A Cow Tonic and Regulator

Your cow is a machine. To convert your grain, hay, silage and fodder into pails of milk is her function. The more she eats each day, if she is able to digest it, the more milk you get.

Dr. Hess Stock Tonic contains the dairyman's favorite remedy, Nux Vomica—the greatest of all nerve tonics—cow remedy, appetizer and digester. It contains Quassia, a stomach tonic; whets the appetite, promotes digestion. It contains Diuretics, to keep the kidneys active. It contains Laxatives, to keep the bowels regular, so that there is no clogging of the system during heavy feeding.



Buy it by the pail

Just regular milk giving where Dr. Hess Stock Tonic is included in the ration.

Excellent for cows at calving time. No retained afterbirth. Feed it before freshing. Good alike for all cattle.

Costs Little to Use
The price of one gallon of milk tonics a cow for two weeks.
25-lb. pail, $2.25; 100-lb. drum, $8.00
(Except in the far West, South and Canada)

Honest Goods—Honest Price. Why Pay More?

REMEMBER—*When you buy any Dr. Hess product, our responsibility does not end until you are satisfied that your investment is a profitable one. Otherwise, return the empty container to your dealer and get your money back.*

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Dr. Hess Dip and Disinfectant
Keeps the Dairy and Stables Healthful and Clean Smelling

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Rheumatism in Cattle

Cattle are not quite so subject to rheumatism as was at one time believed, or it may be said that what was thought to be rheumatism in some cases was not that disease. We have arrived at this conclusion from "thinking back" about many a case treated in by-gone days. It pertains especially to those cases which were diagnosed as chronic rheumatism. Many of those we now believe were due to deficiency of lime salts in the system. It has been shown by nutrition chemists that a pregnant cow when not given sufficient mineral matters in feed has to borrow it from her bones. Lack of a necessary vitamin in legumes and green feed, which has the effect of increasing assimilation of lime salts, is also involved in this matter. When legumes, especially those in the green state, are fed along with a well balanced ration of other nutrients, lime deficiency does not occur and the cow and her fetus thrive normally. When lime is lacking and borrowing results, the cow may become stiff, sore, lame, sluggish, thriftless, and, in short, show symptoms often attributed, in the past, to rheumatism.

In our experience, old pregnant cows are most liable to such deficiency disease. They have difficulty in rising when down. Often they wobble when walking. In some cases they stand humped for a time on rising and owners have concluded or suspected that "urinary trouble" was the cause. In all cases of this sort we strongly advise immediate application of the tuberculin test, as tuberculosis of the bones (vertebrae) of the spinal column may be the cause and that is incurable. When tuberculosis is not found present the ration should be the next consideration and complete feeding and supply of minerals should be instituted, as well prescribed in bulletin 350 (Minerals for Live Stock) of the Wisconsin Agricultural Experiment Station, at Madison. Pregnant cows should also occupy roomy, dry, well ventilated and bedded box stalls or pens in preference to being stanchioned.

When tuberculosis is absent and the ration is adequate and complete, treatment for rheumatism may be given, "on general principles", and will be likely to succeed, if the disease actually is present. Salol, salicylic acid, and urotropin are most useful as medicinal remedies. Colchicum and catechu have also been administered with good results. The experience of the veterinarian is necessary to select the most suitable remedy and decide the appropriate dose. Often he will find it well to start treatment by giving a full dose of saline purgative. That is most often the case when the animal is fat and constipated. Thin, weak cattle on the contrary will require stimulants and tonics.

Local treatment is also necessary, especially when joints are much inflamed and intensely painful, in articular rheumatism. Chloroform liniment combined with anodyne tinctures is excellent for rubbing upon inflamed muscles. Antiphlogistine applied hot may help when the joints are inflamed. Often relief is given by covering affected parts of the legs with thick layers of cotton batting after rubbing with alcohol. Blistering may be necessary in chronic conditions following the stage of acute inflammation.

It is especially indicated to keep cows out of new stables of concrete construction until they have dried and perfectly to ventilate basement stables and to keep them as dry as possible to lessen likelihood of rheumatism.

Spoiled Quarters

I recently purchased a pure-bred Guernsey 3-year-old heifer that freshened about 2 months ago with first calf. The former owner of this heifer tells me that the heifer came fresh on pasture and that he was so busy with other work that he did not give her the attention she should have had. He thought the calf was taking all the milk and by the time he noticed it the front half of udder was badly caked and dried up and is not now giving any milk at all out of front half of udder. This heifer is a very likely looking heifer and if there is any way to bring back the front half to milk I certainly would appreciate knowing it.
Diamond, Pa. H. I. S.

There is practically no chance that the dry quarters will secrete normal milk at a subsequent "freshening" as garget has caused loss of function. In such cases the disease often returns worse than ever at calving time and eventually ruins the udder. Such a cow is a menace in that she may similarly infect other cows, mammitis, mastitis, or garget, in its worst forms being caused by invasion of pus-producing germs (streptococci). Better dry off the milk secretion and fit the animal for slaughter.

Sore Ears

I have a Guernsey heifer calf six weeks old which has little yellow pimples all over its ears, inside and outside, then they seem to dry up and form a scab. It seems to be spreading to its back and jaw; do not think it is ringworm.
Winona, Minn. L. T.

Flies may cause or greatly aggravate such a skin disease as you describe. It may be ringworm but that usually attacks the skin of the face, about the eyes, and on the neck. Scrub the parts clean and when dry rub in some strong iodine ointment and repeat the application when seen to be necessary. If flies annoy sprinkle a little iodoform powder on the affected part, or apply a mixture of one part of oil of cajuput and three parts of olive oil. Ringworm is contagious. Isolate affected calf. Cleanse, disinfect, whitewash, and properly light and ventilate the calf pen or house.

Information on Barrenness

I have a heifer which does not breed. Since this is a rather common occurrence here, I would like to have some literature about treatment of the ovaries of cattle.
St. Ignatius, Mont. O. B.

The method of manipulating the ovaries by way of the rectum for rupture of cysts or dislodgement of persistent "yellow bodies" can only be learned by practice after becoming perfectly informed relative to the anatomy of the parts. A qualified veterinarian should therefore be employed for the work. Such information relative to barrenness and its treatment will be found in book entitled "The Sterility of Cows", by Dr. J. Albrectsen of Denmark, published by Alex. Eger, (Vet. book publisher) Chicago, Ill.

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INCORPORATED
Breeders of—
HIGHEST QUALITY REGISTERED
SILVER BLACK FOXES
Fully Guaranteed Breeding Stock for Sale



It will pay you to investigate this wonderful new industry. We solicit your consideration.

DR. O. STADER, Secretary, Oconomowoc, Wis.
Members of the National & Wis. Fox Breeders' Ass'ns.

Southern Hay

HOARD'S DAIRYMAN:—The hay problem in the case of the southern farmer with a few cows is different from that of the dairyman. Where there are only a few cows legumes following the oat and wheat crop provide a large part of the hay. But the dairyman with several cows is thinking of silage first and hay second.

In either case the hay crop of the cotton belt must be primarily a legume. Bermuda and lespedeza do not grow high enough, as a rule, to be harvested for hay.

Of all legumes the cowpea is most generally used for hay. Seeded as a second crop after wheat and oats, cowpeas make a fair yield of hay if there is good summer season, but if there is a shortage of rainfall then the crop is poor and the farmer who depended on it is short of feed.

The soy bean is more dependable through drouth or excess rainfall than cowpeas. Where cowpeas would die out completely under severe drouth or be drowned out by excessive rain, the soy bean will hang on, revive when the conditions change, and make a fair crop of hay. But many southern farmers have not become acquainted with these virtues of the soy bean and soy beans are grown only in a limited way. Its popularity is, however, spreading rapidly and in a few years the cowpea will be sharing its acreage largely with soy beans.

It is to be feared, however, that neither cowpeas nor soy beans sown after cereal crops are going to fully solve the hay problem of the southern farmer. While these legumes should always follow wheat and oats, there should also be some land where soy beans and cowpeas are given a full season's right of way to produce hay. If the weather fails and greatly reduces the yield of the late sown legume, it is not at all likely to have the same influence on the early sown.

Some dairymen in the South sow oats and vetch in the fall and cut it early for hay in the spring. This gives time to put in a summer legume early with greater certainty of a good yield. They also find after this early harvesting of oats and vetch as hay that there is time for growing a silage crop of corn on the same ground. Of course if the oats were not harvested until they were full ripe, the opportunities for a succeeding hay crop or silage crop would be reduced.

Many southern farmers have learned to cure soy bean or cowpea plants in large cocks instead of allowing them to blanch and dry out on the ground before they are handled. The new way gives the hay higher feeding value, besides it saves the great loss from shattering that characterized the old method. Stakes with cross bars at the bottom afford the ventilating frame work on which green and freshly cut plants will cure out splendidly.

In the western part of the cotton belt, hay or roughage production faces shortage of moisture and in that region sudan grass and other plants of the sorghum family are more dependable, more so than in the Southeast where the warm, moist weather develops disease on some of the sorghums. Johnson grass has its partisans for and against. It is a heavy producer of the hay but it is a soil pest when its eradication is needed, and if allowed to mature the manure of animals feeding on it is likely to sow Johnson grass where it is not needed.

Beggarweed, kudzu, napier grass and Japanese cane are popular in the gulf region though not yet extensively developed. Peanut tops and bunch velvet beans are good hay plants where they are grown.

Georgia. C. A. WHITTLE.

AYRSHIRES

ALLEGANY-STEUBEN AYRSHIRE CLUB

CONSIGNMENT SALE!

Hornell, N. Y., Oct. 29

OVER FIFTY AYRSHIRES. Extra good aged cows, A. R. cows, young cows and heifers bred to freshen near sale time and three young bulls. County wide T. B. eradication. All herds accredited. Best in breeding, health, and production.

Send for catalogue.

IRVING M. JONES, Alfred, N. Y.

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

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Two good individual well grown AYRSHIRE BULLS ready for fall service. Both have advanced registry record dams. Herd Federally accredited.

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Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.

B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

SWINE

HAMPSHIRES

Spring Pigs $20 each—$37.50 per pair. From Famous LOOK-OUT-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

BROWN SWISS

ANNOUNCEMENT

KINNELON FARMS, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name, ownership and location.

The entire herd was moved during the month of August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.

The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.

Herd fully accredited, Certificate number 65301

LEES' HILL FARM, New Vernon, N. J.
P. O. Morristown

MR. AND MRS. WARREN KINNEY, Owners
HARRY KROEMMELHEIM, Herdsman



SWISS VALLEY GIRL 7TH NO. 4678

Breed Brown Swiss Cattle

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N
IRA INMAN, Secretary, Beloit, Wis.

A. E. BOWER, Pres., Union Stock Yds., Cleveland, Ohio

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

JERSEYS

4 Good Bulls

ALSO HIGH CLASS FEMALES for sale. The bulls are from 1 to 2 years old, ready for heavy service. They are of Oxford Lad and Golden Fern's Lad breeding. Show prospects. The females are exceptionally good ones. Prices are very reasonable. The herd is accredited.

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Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

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Pure-bred or grade cattle for sale. Can quote prices on individuals or carloads. R. of M. and Cow Testing Association records.

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For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.

Federal Accredited Herd No. 72406

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Name Your Own Price!

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JERSEY BULL CALF for You

BE REASONABLE!

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World's Championship Blood FOR SALE



Raleigh's Torono Rex 223582

The three-quarters brother to Raleigh's Torono's Meme, World's Champion Jr. 2-yr.-old Jersey, sired by Raleigh's Torono, a Silver Medal bull with over 30 in the R. O. M. If you are not in the 50-lb. list, you need him. Write us for pedigree and full particulars. Herd Federal Accredited.

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CHARLES CITY, IOWA

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50 HEAD JERSEYS - 50

Fair Grounds, Austin, Minnesota
WEDNESDAY, OCT. 15, 1924

J. R. Woods and L. B. Hanna

High record cows and their progeny. Several high class bulls from R. of M. dams. U. S. Accredited Herds. Financial King and Noble of Oaklands breeding.

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Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write

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FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

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Belswood Farm Jerseys

Four choice bulls, 5 to 12 months of age, all out of Register of Merit dams. Accredited herd.

A. F. BLOCK, Mgr. Norwood Park, Ill.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.

J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.

H. S. HAGER, PRAIRIE DU SAC, WIS.

Valley Farm

is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write

FRED STUBLEY, Black Earth, Wis.

DISPOSAL SALE

Registered Ayrshire herd which includes

22 MATURED COWS IN MILK, 19 HEIFERS IN FULL MILK, 6 FRESH HEIFERS, 6 YEARLING HEIFERS, 14 HEIFER CALVES.

(All above tuberculin tested.)

This herd is at Park Falls, Wisconsin and is ready for inspection at any time.

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We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Our school teacher had just been trying to explain the difference between the three words having the sound of "to", and called for a sentence containing all of them. A little Jewish boy in the class quickly held up his hand.

"Well, Isaac?" she questioned.

"Two dollars is too much to spend," was the glib answer.—Ex.

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This one quality alone makes our Scotch Collies rare bargains. They're gentle, fearless, devoted. Have every quality a dog should have--intelligence, courage, strength. Fine shepherds, unsurpassed as watchdogs. Indefatigable enemies of vermin. They are the "Aces" of all dog-dom. Satisfaction guaranteed. Pairs not akin. Get our special bargain lists now.

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return a high net profit. It's return over feed cost that counts.

Ask for "The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
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Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

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Of Registered and Accredited
GUERNSEYS
TUESDAY, OCT. 7, 1924
7 MILES N. E. OF DANVILLE, IND.
Beginning at 1 P. M.

17 COWS. Good breeders and heavy producers. 4 are imported and 7 have A. R. records. 3 YEARLING BULLS. 2 BULLS 9 mo. old and 4 BULL CALVES. Cows bred to Georgeland Winner, a grandson of King Masher, 11.084. Georgeland Winner's 3 nearest dams have records averaging 568 lbs. butter fat.

Indianapolis and Danville traction cars met at Stop 16. Send for catalog.

NORMAN E. PARSONS DANVILLE, IND.

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Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

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For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

Thorn Hill Farm Guernseys



Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to

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SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

We Have Sold 20 HEAD to Lowell Gable, at Paoli, Penn.

This lot consists of one young bull and the remainder females. A majority of the latter are good milk cows and they are bred to Emmadine's great herd sires. ALL OF THESE ANIMALS WILL BE IN THE LOWELL GABLE SALE OCT. 15TH.

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Hopewell Jct., N. Y.
J. C. Penney, Owner, Jimmy Dodge, Mgr.

Rockingham Guernseys
(Home of LANGWATER HOLLISTON 28055)

THE FIRST CHECK FOR $250. received will purchase a fine double grandson of Langwater Holliston, by a full brother of Early Dawn (686 lbs. B. F. in EE)—out of Lady Methuen (601 lbs. B. F. in F.) Beautifully marked and right in every respect and a show bull. Price f. o. b. ROCKINGHAM FARM, Salem, New Hampshire. Check to

DANIEL G. TENNEY, 15 W. 4th St. N. Y. City, N. Y.

We Offer For Sale Young Bulls, Cows and Heifers

I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.

W. R. DUNLOP, ELBRIDGE, NEW YORK

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

Hillswold Farm Guernseys
W. A. CLOUES, Mgr., Shrewsbury, Mass.

BULLS 6 to 10 Mos. Old
From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

SARNIA FARM
—Cherub Guernseys—

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

CHAS. L. HILL & SON
Rosendale Wisconsin

10 Registered Guernsey Heifers!

MAY ROSE BREEDING. Some are from 500- and 600-lb. dams. Several are bred to a bull whose dam has 909-lb. record. Also several young bulls from 600- and 700-lb. cows.

DALE E. RUNDELL, Livingston, Wis.
ORE HILL FARM

—Registered— Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

Summer Bargains In Guernsey Bulls

Midsummer price reduction sale of Registered Guernsey males, calves and yearlings, May Rose breeding, mostly from A. R. cows. Federal Accredited herd.

RICHARD F. KLEMM, Baraboo, Wis.

FIFTH ANNUAL SALE

Blue Earth Co. Guernsey Breeders' Association

Mankato, Minn. - Oct. 8-9, 1924

35 P. B. COWS and HEIFERS. Some A. R. cows. 23 P. B. BULLS. Several out of A. R. cows up to 650 lbs. 50 GRADE COWS and HEIFERS. Several with C. T. A. records up to 500 lbs.

H. O. TELLIER, AUCTIONEER, FIRST NATIONAL BANK OF MANKATO, CLERK OF SALE.
Sales commence promptly at 1 o'clock each day.
Catalogues Sept. 15. Write for one to

DR. M. B. WOOD, Sale Manager, Mankato, Minnesota

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

EL JANE GUERNSEYS ARCADIA, MISSOURI
(85 miles south of St. Louis)

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.

Federal Accredited EL JANE FARMS, - Arcadia, Missouri

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

100 to 500 HEAD of GRADE Guernseys and Holsteins For Sale

These cows are close springers, tuberculin tested, with lots of size and quality, and ready for interstate shipment. Write or wire for information. Address all inquiries to

O. G. CLARK & CO., West Salem, Wis.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

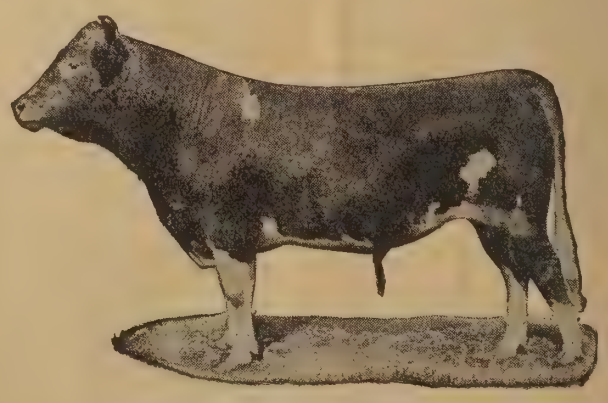
50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.



ANTON'S KING CONFIDENCE 4351

Traces six times to Claremont May Rose, the foundation cow of the great May Rose family, and his dam has a junior four-year-old record of 764 lbs. of butterfat.

Have we ever sent you a description of the bull calves we are now offering for sale? They sell very rapidly because our prices are within the reach of every dairy farmer.

A son of A. K. C. or a son of Bonanza out of a daughter of A. K. C. will build up your herd. Write for prices. Herd Federal Accredited.

HOARD'S DAIRYMAN FARM
Fort Atkinson Wisconsin

LEARN AUCTIONEERING
at World's Greatest School. Term opens Dec. 1st. Students have advantage of International Live Stock show for Stock Judging. Write today for large, free catalog.
JONES NAT'L. SCHOOL OF AUCTIONEERING, 38 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

HOLSTEINS

Buy Your Holsteins
At the Complete
DISPERSAL SALE
OF S. W. HUFF'S WONUKA FARM HERD.
MONDAY, OCT. 13th
56 REGISTERED HOLSTEINS
just passed a clean T. B. Test under State and Federal Supervision—60 day retest.

This sale will be held at the farm near Ludington-ville, six miles north of Carmel, N. Y. Buyers will be met at Towners Station of the Harlem Division of the N. Y. Central R. R. and the Central R. R. of New Jersey.

Dinner at noon—sale starts at 11 a. m. rain or shine

These animals include 2 herd bulls—Ideal Ormsby, a three-year-old from a 33.85-lb. cow—Maple Knoll Ina Ormsby 2d, by a son of a 32-lb. cow with 1,253 lbs. of butter in a year.

Colantha Johanna Walker Lad 8th, from a 31-lb. cow that made 953 lbs. of butter and 20,227 lbs. of milk in a year. They both sell, and over forty animals in calf to them.

17 cows recently fresh or soon due after the sale. Several splendid bred heifers carrying their first calves. Granddaughters of the breed's most noted sires.

Terms—90 days on approved notes—2% discount for cash.

SENATOR JAMES TOWNER, AUCTIONEER
Write for a catalog of the sale to
R. AUSTIN BACKUS, Sales Manager, MEXICO, N. Y.

COMPLETE DISPERSAL SALE
Colorado's Greatest Record Herd
Is to be Sold on
OCTOBER 13-14
140 REGISTERED HOLSTEINS
including 1 former World Record cow—her 2 daughters and her son—5 daughters of 1000-lb. cows; 12 daughters of over 30-lb. cows; 12 Colorado State Record cows and their daughters; 23 daughters of Johan Duchess De Kol Lad—Colorado's greatest bull.

This herd passed 100% clear on Federal Test, Sept. 3, 1924.

MRS. R. G. DOUGLAS, *Shirley Farms*
FT. LOGAN, COLORADO
8 miles southwest of Denver

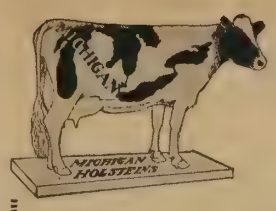
Ormsby-Homestead
HEIFERS and BULLS
FOR SALE
Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.
A Clean Herd
Under Federal Supervision
MILFORD MEADOWS STOCK FARM
J. C. CORT, Mgr., LAKE MILLS, WIS.

WANTED
15 Head of Holsteins!
not over 4 yrs. old, due to calve in 6 weeks. Must be pure bred or good grades from purebred sires.

W. H. SCHENDORF
1006 East 63rd Street, Chicago, Ill.

Oatman Farm Holstein Herd
Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.
O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS
Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.



Buy Michigan Holsteins



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several carloads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE
One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.
L. C. KETZLER, R. 8 Flint, Mich.

2 SERVICEABLE BULLS
One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $200 takes either bull. Herd under Federal supervision.
J. E. BURROWS Flint, Mich.

D. D. AITKEN, Flint, Mich.
Breeder of Holstein-Friesian Cattle
MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.
Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

Sir Charlevoix Ormsby Finderne 377019
Whose dam holds Michigan state record with 1278.56 lbs. butter and is second highest cow in world for milk with 35,339.50 lbs. in 365 days. *Sons of his for sale from good 7-day and yearly record dams.*
J. B. JONES FARM, Romeo, Michigan

Livingston County Sales
C. T. A. SALE—80 HEAD above 300 lbs. fat. One of our leading herds will be dispersed—30 lb. cows, heifers, a 36 lb. bull, 2 consignment sales with high record cows. Our County is free from T. B. It has the world's greatest bull Ass'n. As many Holsteins as any county of its size in U. S. Come to Livingston County for Holsteins.
LIVINGSTON CO. HOLSTIEN-FRIESIAN ASS'N.
BURR J. HOOVER, Sec., HOWELL, MICH.

A 30-lb. Bull
At a Bargain Price
King Pontiac Segis Lad De Kol 3d is 2 years old and the sire of some very promising calves. He was second among 25 calves at the 1922 Michigan State Fair and this year he was a prize winner as a 2-yr.-old. His dam made 30 lbs. butter from 700 lbs. milk in 7 days and his sire is a son of Sadie Gerben Hengerveld De Kol, 40 lbs. butter, 782 lbs. milk in 7 days, 157 lbs. butter, 3465 lbs. milk in 30 days. Sold subject to 60-day retest guarantee. Write today.
BAYNEWOOD FARMS, Romeo, Michigan

Wabeek Farm Holsteins
Foundation Females For Sale
We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

Prince Echo Rauwerd 353211
Is being used in the Traverse City State Hospital herd on the daughters of his half-brother, ECHO SYLVIA KING MODEL.

Both of these bulls are sired by CHAMPION ECHO SYLVIA PONTIAC, best son of MAY ECHO SYLVIA, and sire of 14 daughters from 30 to 37.5 lbs.

The dam of PRINCE ECHO RAUWERD produced 34.05 lbs. butter and 688.6 lbs. milk as a Sr. 3-year-old.

His sire has ten daughters from 30 to 37.69 and her dam is a 30-lb. cow with a 365-day record of 1113.25 lbs. butter and 29,000 lbs. milk.

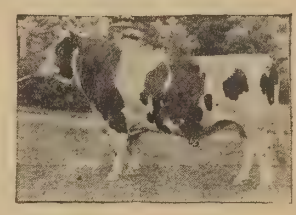
We are counting on the tremendous production back of him to show results.

His 6 nearest dams average 35.22 lbs. butter and 709 lbs. milk in 7 days.

Send for our list of bulls from Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

Detroit Creamery Co. Holsteins
Sir Hengerveld Pietertje Ormsby, Sr. Sire
A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale
a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld
THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding
SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD
Send for List



MARYLAND FARMS, Dudley E. Walters, Owner, GRAND RAPIDS, MICH.

DISPERSAL SALE
— REGISTERED —
HOLSTEIN CATTLE
Thursday, October 16th, 1924
C. S. HEEG & SONS, HOWELL, MICH.
Sale Pavilion, Fair Grounds
The highest record lot of cattle ever sold in Livingston County.

A 36-lb. cow, a 35-lb. cow and several daughters from each, other good ones.

The first 7 dams of our Herd Sire average over 34 lbs.

ACCREDITED HERD
For Catalogs, address,
F. J. FISHBECK HOWELL, MICHIGAN

SAUK COUNTY HOLSTEIN ASS'N.
Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
N. T. GILL, Sec'y., Reedsburg, Wis.

A YEARLY RECORD HERD
The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.

BARGAINS In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest
35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.
WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

HERD SIRE FOR SALE
Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis
is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Purebred and Grade Holsteins
We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.
DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

Mention Hoard's Dairyman When Calling On Your Dealers or Writing Advertisers

Sweet Clover for Hay

HOARD'S DAIRYMAN:—In order to raise sweet clover more successfully where rank growths are so common, it is advisable to seed more to the acre. It has been a custom of seeding 8 to 12 lbs. to the acre, depending on the nature of the soil. If twice this amount is used, it will prevent the plants from rank growths. The stems will be fine and tall, making it very good hay. There will also be a greater yield, and this will somewhat offset the extra cost for seed.

This method of heavy planting is also beneficial in the sow thistle infected areas. The early cutting of the fields not only keep the thistles from setting seeds, but the thick growth will tend to smother and crowd out the thistles.

Observations throughout the northwestern part of the state of Minnesota clearly indicate that sweet clover should be seeded more heavily and, where it is seeded from 16 to 24 lbs. to the acre, a finer hay is produced and it will greatly check the sow thistle.

Minnesota. A. H. OLESBERG.

Select Seed Corn for Vigor

According to Minnesota Bulletin 210, "Methods of Corn Breeding", seed corn should be selected on the basis of vigor, without close attention to score card ear-type.

In "suggestions to farmers" at the close of the bulletin are the following statements:

"Corn seed should be selected from perfect stand hills and from vigorous, healthy stalks. Plants which are green when the ear approaches maturity insure normal maturity of the ear.

"Close selection for ear type leads to a reduction in yielding ability. For this reason no close selection to ear type should be made.

"Proper storing of seed ears is fully as important as methods of seed selection."

LAST CALL!!

Mankato Holstein Farms Dispersal

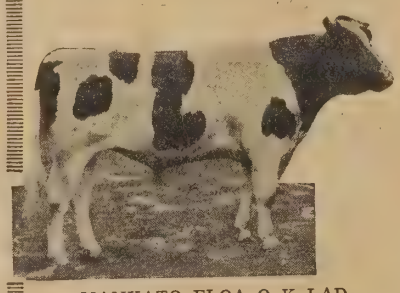
MARLOW & RANDALL, Mgrs.

OCTOBER 8-9

—

MANKATO MINNESOTA

Four Clean Tests



MANKATO FLOA O K LAD

"The only bull in the world whose dam and sire's dam are 1000-lb. 2-year-olds."

125 Registered Holstein Cattle

Almost every one an ORMSBY, combining the blood of Sir Pietertje Ormsby Mercedes and Ormsby Korndyke Lad, the only sires having sixteen 1,000-lb. daughters. Many first prize winners at leading fairs.

100 FEMALES

FIVE 1,000-LB. COWS and ten daughters of 1,000-lb. cows.

THIRTY-FIVE DAUGHTERS of Mankato Ruby Marathon Ormsby, the senior sire.

TWENTY DAUGHTERS OF O. K. L. 8th, son of O. K. L. and a 1,000-lb. 2-year-old.

COWS, BRED HEIFERS AND HEIFER CALVES in the usual proportion.

25 MALES

THE SENIOR SIRE, a show son of Marathon Bess Burke and Ruby Karen Mercedes.

THE JUNIOR SIRE, The only bull in the world whose dam and sire's dam are 1,000-lb. 2-year-olds.

A SON OF THE SENIOR SIRE from a 1,051-lb. 2-yr.-old.

THREE OTHERS from 1,000 to 1,194-lb. dams.

Premier Exhibitor at Minnesota, South Dakota and Sioux City, 1924

Send for Illustrated Sale Folder

TWIN CITY PEDIGREE & SERVICE CO., Sale Mgrs.

Market Bank Bldg. MINNEAPOLIS, MINN.

HOLSTEINS

HOLSTEIN BULL

BORN MARCH 11, 1923

His Sire a son of Marathon Bess Burke and Wis. Fobes 6th. His Dam, Sis Veronica Piebe, has a 305-day record of 683 lbs. butter from nearly 18,000 lbs. milk. This bull is a good, straight individual and a good buy. Pedigree, photo and price on application. Herd Federal and State Accredited.

J. LYNARD **Owatonna, Minn.**

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO

C. L. Spaulding, Mgr. Warren, Minn.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service. GRAHAMHOLM FARM,

D. G. Twentyman, Manager Rochester, Minnesota

HOLSTEIN FEMALES FOR SALE

SIX REGISTERED COWS and HEIFERS with good long time semi-official or cow testing association record backing. Write for price list. Federal accredited herd.

B. A. NORRIS, Anoka, Minnesota.

F. H. Bauer Dispersal!

ARBY FARM

OCT. 13th **70 REG. HOLSTEINS** DELANO, MINN.

INCLUDING THIRTY-FIVE GRANDDAUGHTERS OF PIEBE LAURA OLLIE HOMESTEAD KING

THESE ARE DAUGHTERS OF SIR PIEBE HOMESTEAD SEGIS, one of the best individual sons of "Piebe". They are typical "Piebes" in both type and production. There are also many cows bred to this great bull.



ONE OF THE GRANDDAUGHTERS OF "PIEBE"

TWENTY-FIVE COWS AND HEIFERS either fresh or due to freshen immediately after the sale. Most of these are bred to SIR ARBY ORMSBY PIEBE, the junior sire (Selling). He is by a 1,029-lb. son of Ormsby Korndyke Lad and from a 22.89-lb. heifer combining the blood of "Piebe", "Count" and Pietertje Maid Ormsby.

COWS, BRED HEIFERS, YEARLINGS, HEIFER CALVES AND A FEW CHOICE GRANDSONS OF "PIEBE".

FEDERAL SUPERVISION

Send for Illustrated Folder

TWIN CITY PEDIGREE & SERVICE CO., Sale Mgrs.

211 Market Bank Bldg., MINNEAPOLIS, MINN.

Dr. H. P. Fischer Dispersal!

MUDCURA FARM

OCT. 11 SHAKOPEE MINN.

Federal Accredited Herd

ORMSBYS **70 REGISTERED HOLSTEINS** ORMSBYS

A wonderful offering of show animals and sensational producers.

60 FEMALES

including Princess Aaggie Polkadot De Kol, the highest year record cow ever offered at auction, and four others over 1,000 lbs. Two daughters, several sisters and 35 granddaughters of this great cow also selling.

10 MALES

including Duke's Mixture, the junior sire, a son of "Duke" and the 1,399-lb. cow; Duke 31st, first prize winner at several state fairs, and others of splendid type and rich Ormsby breeding.

Send for Illustrated Folder

TWIN CITY PEDIGREE & SERVICE CO., Sales Mgrs., Market Bank Bldg., MINNEAPOLIS, MINN.

A YEARLY RECORD BULL—Ready for Heavy Service



SIR WALKER SEGIS LYONS was born Feb. 19, '22. He is well grown and a good individual. His dam produced 20718 lbs. milk, 823.86 lbs. butter in a year as a 2-year-old. His sire by Piebe Laura Ollie Homestead King is from a 1230-lb. dam with 30814 lbs. milk. Write today for further details if you want a sire with the best of breeding and production. You'll find the price very reasonable.

CARLETON COLLEGE FARMS, Northfield, Minn.

FEDERAL ACCREDITED HERD



A Top Notch Bull for a High Grade Herd—Only $150

COLONEL AAGGIE SEGIS WALKER, BORN OCT. 31, 1923

His dam is a 17-lb. junior two-year-old daughter of SIR WALKER SEGIS HOMESTEAD, a proven show sire with over 30 A. R. O. daughters, while the sire of this calf is a strongly "COUNT"-"PIEBE" bred bull whose five nearest dams average over 1,090 lbs. butter in a year.

This calf is a broad butted, deep middled, straight top-lined, all around good individual, one you will like. Send for pedigree and photo.

A. J. LASHBROOK - **Northfield, Minn.**

KEEP TAB ON YOUR COWS

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets.

Hoard's Dairyman, Fort Atkinson, Wisc.

Production—Blood Lines
Size—Type—Health
Are features of the offerings in the

Daisy Hill DISPERSAL

October 17-18
At the Farm

110 Head Pure Bred HOLSTEINS

Health guaranteed
Last two tests 100% clean and another test to be made before sale.

1200-lb. COWS
1100-lb. COWS
1000-lb. COWS
900-lb. COWS
800-lb. COWS
30-lb. COWS
Heifer Records in Proportion

Square Udders—Square Rumps
Some wonderful Family Groups

Three Splendid Herd Sires
and just a few young bulls from large record dams

Send for Catalog — Now Ready

Daisy Hill Farms
JAS. A. REYNOLDS
Chagrin Falls, Ohio

OHIO HOLSTEINS FOR SALE
Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
0509 Euclid Ave., Cleveland, Ohio

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.
If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Dousman, Wis.
A clean herd under state and federal supervision

REGISTERED HOLSTEINS
GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE
Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.
Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

HOME FARM DISPERSAL
TUESDAY, OCTOBER 14th

65 HEAD
Federal Accredited

At two national dairy shows where Home Farm Holsteins were exhibited, they were awarded three grandchampionships and one senior championship.

All To Be Sold



AT THE FARM
Adjoining
CHAPIN IOWA

Every female in the herd except one, has been bred on the farm.

FOUR DAUGHTERS OF SIR SADIE CORNUCOPIA

Positively the greatest group of daughters of one sire ever offered in an Iowa sale. Their records average practically 1,000 lbs. butter and their average weight is 1,850 lbs. From left to right they are—Sadie Fobes of H. F.., Sadie Whitebird of H. F., Sadie Cornucopia Whitebird and Sadie Gerben of H. F. They are the four highest record daughters of their sire.

SADIE CORNUCOPIA WHITEBIRD IS THE HIGHEST YEARLY RECORD COW EVER OFFERED IN AN IOWA SALE

IN THIS SALE
An 1100-lb. cow
A 1,000-lb. cow
Four others over 900 lbs.
Milk records from 20,000 lbs at 2 yrs. to 26,000 lbs. at full age.
A 36-lb. cow and her son.
Two sons of 1,000-lb. cows.
Four daughters of 30-lb. cows
Two daughters of a 1,000-lb. cow.

SOME OF THE FEATURES

SADIE CORNUCOPIA WHITEBIRD—1,109 lbs. butter, 26,000 lbs. milk, with her yearling daughter. Due soon after sale.

SADIE FOBES OF HOME FARM—1,016 lbs. butter, 24,240 lbs. milk, also 933 lbs at 4 yrs. A son and a daughter selling.

QUOQUE KORNDYKE SADIE VALE—35.96 lbs. in 7 days, 958 lbs. in a year. State champion for milk in sr. 3-yr.-old class. A son and daughter in the sale.

SADIE GERBEN OF HOME FARM finishing a record of about 930 lbs. butter. Dam of H. F. S. V. Empress. A baby daughter and seven heifers by her son selling.

SADIE WHITEBIRD OF HOME FARM—903 lbs. butter. 3 daughters on sale, one making a large 3 year old record.

HOME FARM SADIE VALE EMPRESS—805 lbs butter at 3 years. Now on test. 2 daughters in sale.

SOME OF THE BULLS

King Korndyke Sadie Vale 24th—the best transmitting son of K. K. S. V. for yearly and short time daughters combined. Home Farm Prince Fobes, a son of Sadie Fobes of H. F.-1,016 lbs. butter, sired by Woodcrest Sir Clyde. A son of Quoque Korndyke Sadie Vale—35.96. A son of H. F. S. V. Lorelia—her two heifer records averaging over 800 lbs butter and 21,000 lbs. milk.

Sir Sadie Cornucopia—with 4 daughters in the sale, is the best son of the first 30-lb. cow, Sadie Vale Concordia and is the sire of our four with 8 records from 30 to 36 lbs.. Woodcrest Sir Clyde, with 20 daughters in the sale, is the best son of Alma Clyde (33-lb. and 970 lbs. in 1912) and his 44 tested daughters include a 36-lb. heifer and several others above 30 lbs. with year records up to 1,000 lbs. butter and 25,000 lbs. milk. King Korndyke Sadie Vale 24th has two daughters averaging 34 lbs. and his first four to finish year records averaged 805 lbs. butter from 21,000 lbs. milk. Twelve of his beautiful daughters and 24 granddaughters in the sale.



QUOQUE KORNDYKE SADIE VALE
(To Be Sold)
a 35.96 lb. daughter of K. K. S. V. 24th with 958 lbs. in a year.

Chapin is located seven miles north of Hampton and 23 miles south of Mason City on the C. R. I. and M. & St. L. railroads; the Red Ball bus runs by the farm on the Glacier Trail and Jefferson Highway. Trains will be met and transportation furnished from Hampton the morning of the sale.

60-90-day Retest
J. E. MACK - S. T. WOOD
Send for Sale Circular - Catalogs Now Ready

— Write
W. B. BARNEY & SONS, CHAPIN, IOWA
or Western Holstein Pedigree Co., Webster City, Iowa



HOME FARM SADIE VALE EMPRESS (To Be Sold)
An 850 lb. 1st calf 3 yr. old daughter of K. K. S. V. 24th.



IOWANA STAR FAYNE
An outstanding Homestead sire. 4 of his full sisters one a Jr. 2-year-old average 22,675.7 lbs. milk, 898.34 lbs. butter in a year.

Iowana Farms' Junior Herd Sire

SIR JOHANNA FAYNE 42147. 75 A. R. daughters. His daughters have been exceptional long time producers and winners in the show ring.

SIR FAYNE CONCORDIA 35227. 27 A. R. O. dau's.
JOHANNA DE PAULINE 4th 60992. M. 582.9, 7 da. B. 25.47 7 da. Private herd record 17663 milk and 714.3 butter in a year.

STAR WATSON 71898 Milk 529.4 lbs. in 7 days. Butter 22.79 lbs. in 7 days. 7 A. R. O. daughters. 4 above 20000 lbs. milk in a year. One of the breed's greatest foundation cows.

CHIEF PIEBE OAK DUCHESS 28176. 22 A. R. O. dtrs. Ollie Watson Prima Donna. butter 31.1, milk 618.7 in 7 days.
OLLIE WATSON 5th's PEARL 59175. Milk 361.7, B. 14.65 7 da. 4 yr 15 da. 2 A. R. O. daughters

HOMESTEAD JR. DE KOL 2840. 73 A. R. O. dts
GRACE FAYNE 2D 44124. Butter 26, milk 677 7 da.
SARCASTIC LAD 23971 34 A. R. O. daughters.
JOHANNA DE PAULINE 42169. b. 20, m. 437.6 7 da
PIEBE DE KOL BURKE 25368. 28 A. R. O. dts.
LADY OAK 2d 39947. Butter 21.49, milk 492.9 in 7 da.
PEARL OF THE DAIRY'S JOE DE KOL 23450. 76 A. R. O. daughters.
OLLIE WATSON 5th 48168. B. 16.59, m. 398.2 7 da.

He is being bred to the daughters of Meadow Holm Ona Hartog King as well as to many of our good Homestead cows. His sons and daughters are outstanding. We have a few of his sons from A. R. O. dams for sale.

IOWANA FARMS **DAVENPORT, IOWA**

BULL CALF
BORN DECEMBER 21, 1923
Sire: Chief Korndyke Johanna Ormsby, whose seven nearest dams average over 1,000 lbs. butter in a year. Dam: Lady De Kol Ormsby Rue. Her dam 1,037 lbs. butter in a year. Mostly white. Pedigree and photo.
PRICE $125.00
KEWAYDIN FARMS, R. 1,
J. A. Schmidt & Sons, Ladysmith, Wis.

— PUREBRED —
HOLSTEIN HEIFERS
25 HEAD pure-bred heifers, 2 and 3 years old, due in November. Priced right. They are bred to a 28.58-lb. bull and sure are a dandy bunch.
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wis.

Walcowis Farms
OFFER—
Desirable grandsons of Iowana Sir Ollie, sired by Sir Ollie Mooie Watson and North Star Gift Champion. Dams have records up to 32 lbs., also good year records. Write or visit us.
WALCOWIS FARMS, N. Dickinson & Son,
Lake Geneva, Wisconsin.

Bargains in Registered HOLSTEIN BULLS--- all ages
Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.
Hargrove & Arnold, Norwalk, Ia.

Buy HOLSTEINS in JEFFERSON CO.
1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

Choice Dairy Cattle
FOR SALE—200 head of the very best Holstein and Guernsey cows, heifers, 4 to 8 weeks old calves at reasonable prices. Write the
WHITEWATER STOCK FARM
Whitewater :: Wisconsin

— ABSOLUTE —
DISPERSAL SALE
140 Registered Holsteins
Foundation cows from Wisconsin and New York. Herd sires from Fred Pabst and Hargrove & Arnold. Large production. Excellent type.
OCT. 16-17, WARRENSBURG, MO.
For catalog write
JOHNSON COUNTY HOLSTEIN CO., J. L. Ferguson, Sec'y

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30 Extra Fancy Grade
HOLSTEIN COWS
Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.

36-lb. Breeding
back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.
ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

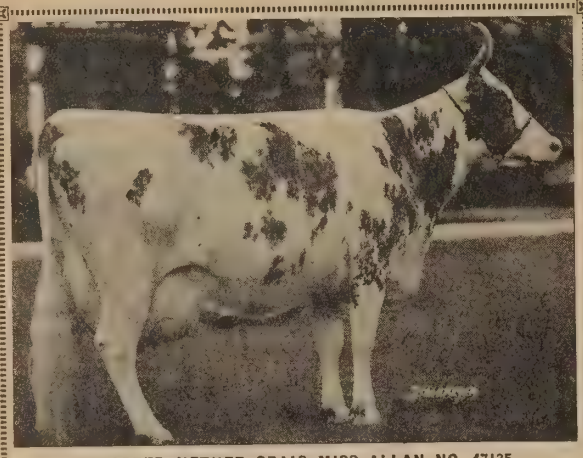


One of the big reasons for super-excellent dairy form possessed by

STRATHGLASS FARM
AYRSHIRES

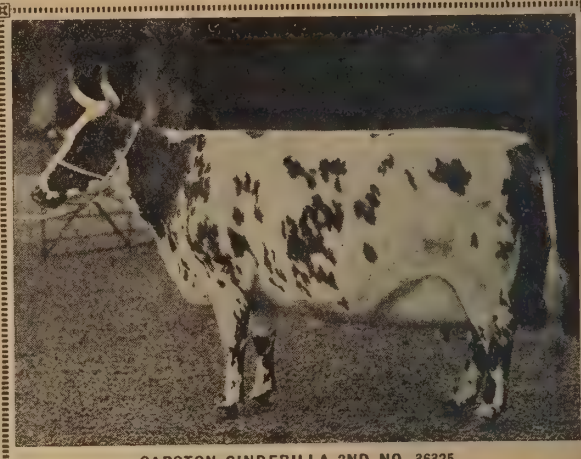


is the outstanding and uniform character of their ancestors. Pictured on this page are the dams of some of our Herd Sires --- past, present and future.



IMPORTED NETHER CRAIG MISS ALLAN NO. 47135
Picture at 9 years of age.
Dam of Marshall in Chief, a present herd sire.

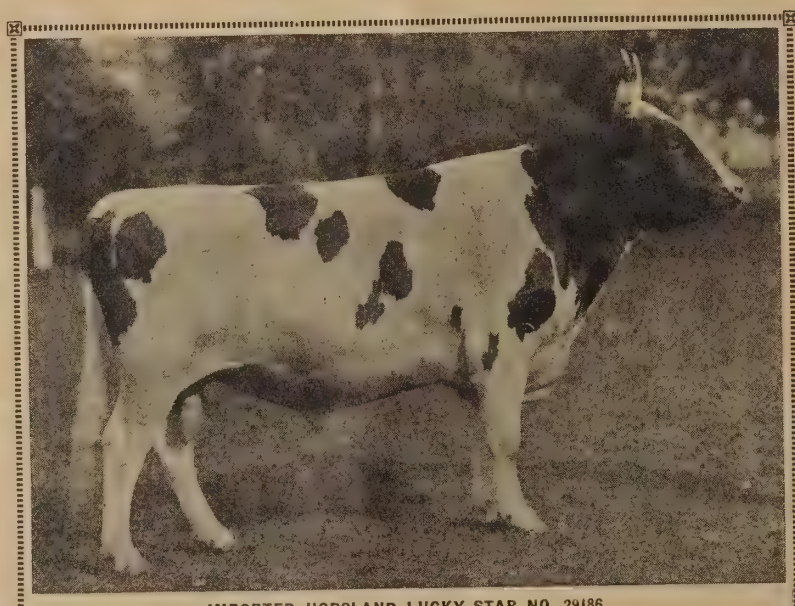
WE invite everyone interested in dairy cow improvement to study the type, character, evidence of constitutional vigor, udder balance and attachment, teat size and placement of these noted matrons. No cow man will doubt that they are continuosusly profitable producers of 4% milk.



CARSTON CINDERILLA 2ND NO. 36325
Generally regarded the greatest cow in Scotland.
Dam of Strathglass Speculation, a future herd sire.



IMPORTED AUCHENBRAIN MISS CRAIG 6TH NO. 75393
From same family as Barclay's Doch-en-Doris, present sire. Dam of a future herd bull.



IMPORTED HOBSLAND LUCKY STAR NO. 29186
One of our present herd sires.
1st prize 3-year-old and grand champion bull at National Dairy Show, 1923



AUCHENBRAIN FAVORITE BEAUTY 24 NO. 47518
Picture at 14 years of age.
Dam of Auchenbrain Ben Bo, present nerd sire.



IMPORTED FAIRFIELD MAVIS JEAN 6TH NO. 33274
Picture at 5 years of age.
Dam of Strathglass Oliver Twist, a former herd sire.



IMPORTED SHIELDHILL MINNIE NO. 75398
Picture at 5 years of age.
Dam of Imp. Spittal Signet, a present herd sire.



IMPORTED WHITEHILL FANNY NO. 33264
Picture at 9 years of age.
Dam of Strathglass Good Hope, a former herd sire.

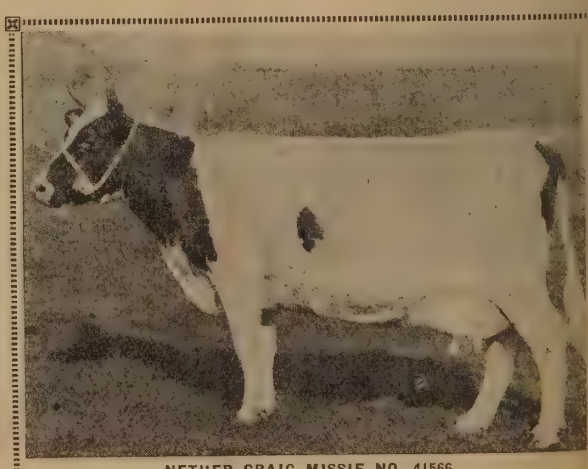
IT is from cows of this character that we offer Herd Sires worthy of the name to Ayrshire breeders and grade cow owners whose objective is constructive.

We also have a few females in offer.

Over 200 head in herd.

Federal Accredited --- Tuberculosis Free

Get your name on our mailing list now for catalogue of Our Spring Sale of Imported Ayrshires.



NETHER CRAIG MISSIE NO. 41566
Picture at 13 years of age in heavy working attire.
Dam of Hobsland Lucky Star, present herd sire.

STRATHGLASS FARM

HUGH J. CHISHOLM, Owner
A. H. TKYON, Manager

Port Chester, N. Y.

: C . Ed. 20 July 25
Expt. Sta.
Urbana Ill.

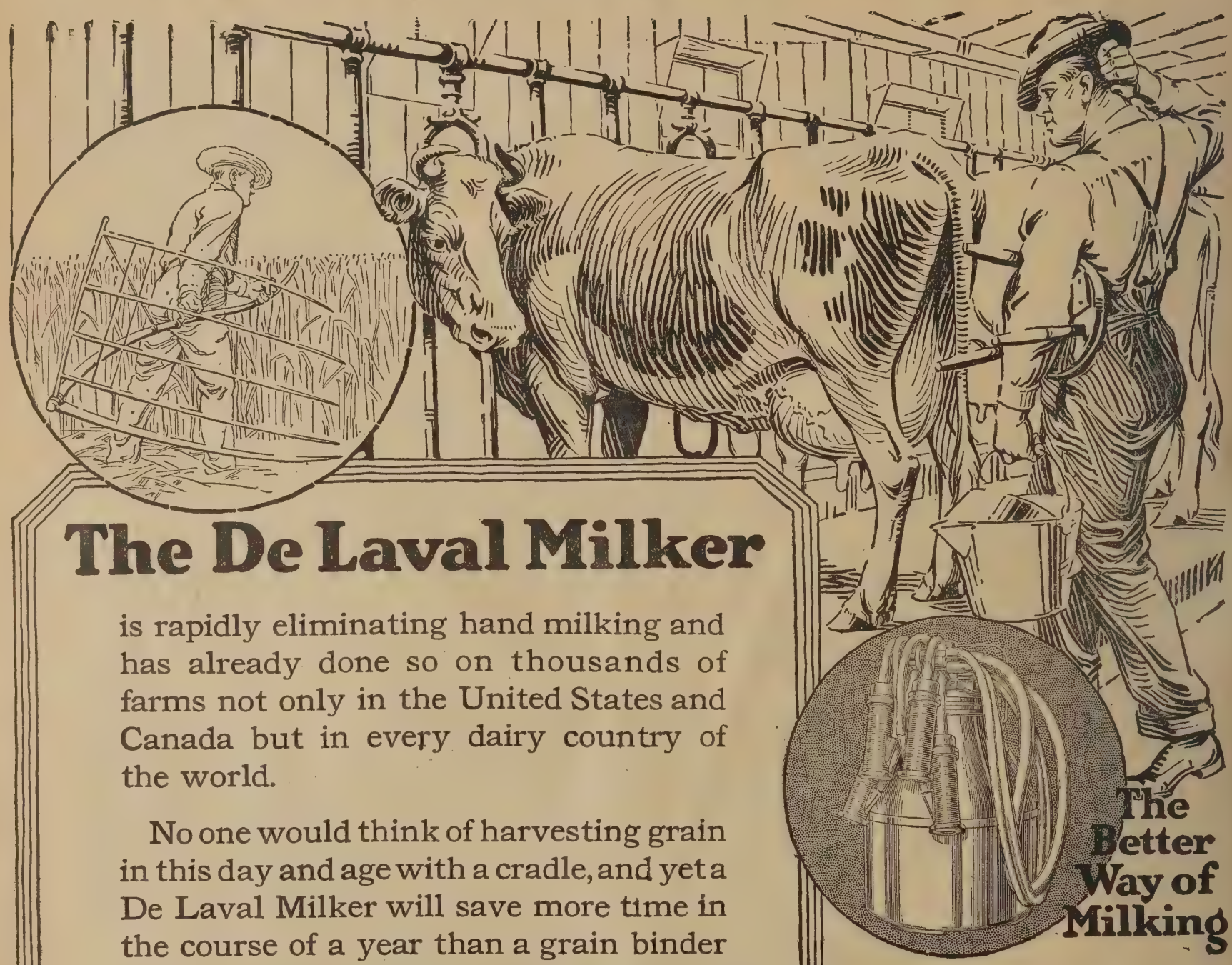
HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 13 Fort Atkinson, Wisconsin October 10, 1924

Hand Milking will soon be as Old Fashioned as Hand Harvesting



The De Laval Milker

is rapidly eliminating hand milking and has already done so on thousands of farms not only in the United States and Canada but in every dairy country of the world.

No one would think of harvesting grain in this day and age with a cradle, and yet a De Laval Milker will save more time in the course of a year than a grain binder or any other labor-saving machine on the farm. A De Laval Milker not only saves time twice a day, 730 times a year, but because of its stimulating and soothing action almost invariably causes cows to produce more milk than by any other method—either hand or machine—and in addition produces cleaner milk.

The Better Way of Milking

The De Laval Separator Company

NEW YORK
165 Broadway

CHICAGO
29 East Madison Street

SAN FRANCISCO
61 Beale Street

EASY TERMS: If you are milking 10 or more cows by hand you can soon pay for a De Laval Milker through the time it will save and extra milk of better quality it will produce. Sold on such easy terms that you can use it while it pays for itself.

HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., OCTOBER 10, 1924 Number 13

FROM SCRUBS TO PURE-BREDS IN CANADA

A. H. WHITE, Department of Agriculture, Canada

SOME time back, I had the opportunity and the pleasure of visiting the excellent herd of the Wicklow Stock Farm, owned by J. G. Wait of Ontario. Mr. Wait's farm comprises about 175 acres and is pleasantly situated on the north shore of Lake Ontario about 80 miles east of Toronto and in the heart of one of the best apple growing districts in the province. There is a good apple orchard of considerable size that produces a nice income, but the dairy herd is the main revenue producer.

The most interesting feature of the herd is its history and transition from a common grade herd of low average production to one composed entirely of pure-bred animals with a fairly high average production. This fact is the more interesting because Mr. Wait has built up his herd by breeding and not by buying. The making over of this herd really started in the year 1911, when Mr. Wait became interested in keeping dairy records and checking upon each individual cow. Since that date a complete daily milk record has been kept of every cow that has been in the herd. This was before there was any kind of a cow test association in the community. In 1918, a cow testing association was formed and Mr. Wait has been an enthusiastic member every year.

If anyone had called at the Wait farm in 1911, they would have found just a common, ordinary bunch of grade cows of no particular breeding. Some of them were just cows and that's all. Today on this farm is a small but select herd of well bred Holsteins that are making fairly good profits in spite of the fact that milk prices are considerably lower than in the United States.

Keeping Records Did It

The change from a lot of nondescript grades with an average production of about 5000 lbs. milk to pure-breds averaging over 10,000 lbs. milk was not accomplished in one year or in two. Nor did it happen accidentally. In the dairy business it doesn't work out that way. It did come about, however, after a few years of careful weeding out of the poor cows, the use of good pure-bred sires, and attention to the main principles of good feeding. These better practices were made possible by having accurate information about each cow. As Mr. Wait said, "I would soon go out of dairying if I did not keep records." Naturally he is a booster for cow testing associations of any kind.

When Mr. Wait first started to build his herd he was a comparatively young man with no special advantages, except a vision of what he would like to have in the matter of cows, his determination and perseverance to that end, and a store of good common sense. The farm was no better than other farms in the community. His cows were on the same average plane as those of his neighbors and probably not as good, and he was not blessed with a lot of money with which to go out and buy high priced sires or cows of known high production. The herd has had to pay for itself as it went along, and as it improved Mr. Wait was able to buy better sires and spend more money on feeding.

The first year that milk records were kept, there were 14 cows in the herd. When the year's production for each cow had been totaled, Mr. Wait found that he had been keeping three cows under the 4,000-lb. mark. The average for the whole herd was 5,438 lbs., with a high individual production of 7,150 lbs. The net result of the first year's testing was the sale of seven of the original herd and the inclusion of four new animals.

This change brought the average production over the 6,000-lb. mark with an increase of nearly 800 lbs. per cow, but there were some boarders among the new cows. These in turn were disposed of immediately when they were found out and replaced by others. At the end of the third year of testing, the average of the herd jumped another 700 lbs. per cow, and during the year of 1914 the average of eleven head was 8,241 lbs. milk, including the records of three young heifers that were in the herd for less than eight months. This increased production of nearly 3,000 lbs. milk per cow was the result of weeding out the poor cows together with a little better feeding. It amply justified the extra time and trouble it took to weigh the milk morning and night.

The highest average production was reached in 1918 when there were only 8 mature cows in the milking herd. The average in that year was 12,559 lbs. of milk and 439.0 lbs. fat. Four of these cows were pure-breds and the others were grades. Since 1918, there has always been a number of young heifers in the herd but Mr. Wait has managed to keep the average production over the 10,000 lbs. per cow. This is a difficult thing to do, as most dairymen know, for the higher the production the harder it is to increase production, and the sires must be better if any improvement is to take place.



DELLA OF WHITE GABLES, THE FIRST PURE-BRED COW PURCHASED BY MR. WAIT IN 1913

In ten years she has produced over 100,000 lbs. milk.

The Start in Pure-breds

After the first two years Mr. Wait thought that anything worth doing was worth doing right, so he purchased his first pure-bred cow, Della of White Gables. The old cow is still in the herd after eleven years of service and seems to be going as strong as ever. In her first eight years she produced over 100,000 lbs. milk in spite of the fact that in 1920 she had garget trouble that left two quarters of her udder practically useless. In 1917, another foundation cow was purchased and her total production for the first four years was 54,656 lbs. milk and 2,073.8 lbs. fat. At the present time the milking herd of about 17 cows is composed of these two cows and thirteen of their daughters and granddaughters.

When the time finally came to change entirely to a pure-bred herd a few real good grades had to be sold. Two or three had produced on an average of over 11,000 lbs. per year over a period of five to eight years, and were living examples of the value of the pure-bred sire.

During these years a few good daughters of the first foundation cow had come along. Her first daughter, Kate of Roselawn, started out with a record of 14,258 lbs. milk and 487.3 lbs. fat, and for her first four years had an average production of over 14,000 lbs. milk and 500 lbs. fat. Another daughter, a full sister of Kate, made 10,700 lbs. milk and 403.9 lbs. fat in her first year and 15,290 lbs. milk and 569.0 lbs. fat the second year. And hereby hangs a tale of a good bull sent to the butcher before his daughters were tested and his value known. These records are based on what these cows had given in each succeeding calendar year.

Some Good Official Records Were Made

Having found that he had some cows that had possibilities for some good official records, Mr. Wait put three cows on Record of Performance test in 1921. In the 365-day division, Kate of Roselawn made 17,031 lbs. milk and 608.0 lbs. fat, while her sister made 11,183 lbs. milk and 427.0 lbs. fat in the 305-day division. The other cow in the herd made 15,000 lbs. milk and 553.0 lbs. fat in 365 days. These performances led on to the strictly official seven- and thirty-day tests.

In 1922, although only dry for a period of three weeks, Kate was put on test and she was in pretty fair shape as Mr. Wait was a good feeder. However, this was something new, as feeding for seven-day tests is quite different to feeding in the ordinary way. Mr. Wait made a good job of it in spite of inexperience and he had the pleasure and great satisfaction of seeing this cow make a record of 741.7 lbs. milk and 32.89 lbs. butter in seven days. Her high milk production for one day was 112 lbs. milk. This record attracted the attention of a breeder who had made a specialty of these short time tests and Kate was immediately sold for a pretty good figure. Under more experienced hands she went right on and made a record of 855.4 lbs. milk and 37.02 lbs.

(Continued on page 390)

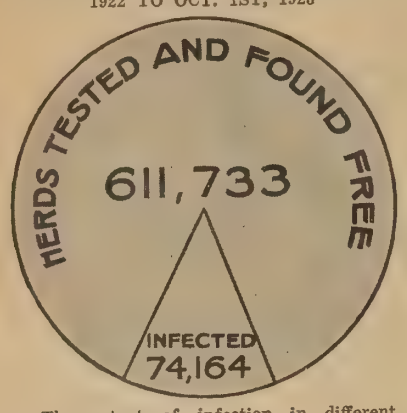


PART OF THE WAIT HERD ON SWEET CLOVER PASTURE

REVIEW OF T. B. ERADICATION WORK

With Illustrations From Bureau Of Animal Industry

PREMISES FOUND TO CONTAIN TUBERCULOUS CATTLE—JAN. 1ST, 1922 TO OCT. 1ST, 1923



The extent of infection in different states varies widely. The disease is found on an average in about one-ninth of the herds tested.

% infected	States
Above 25	10
From 10 to 25	15
From 5 to 10	13
Less than 5	11*

*Includes D. C.

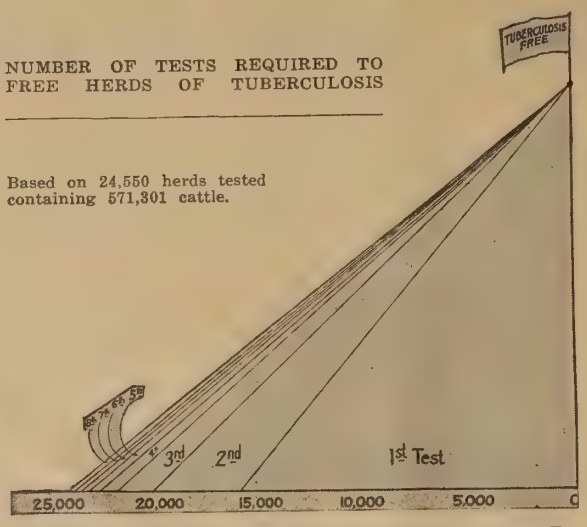
Total number of herds tested	685,897
Herds and premises found infected	73,164
Per cent infected	10.8

DISPOSAL OF REACTORS SLAUGHTERED JAN. 1, 1922 TO MAR. 31, 1924



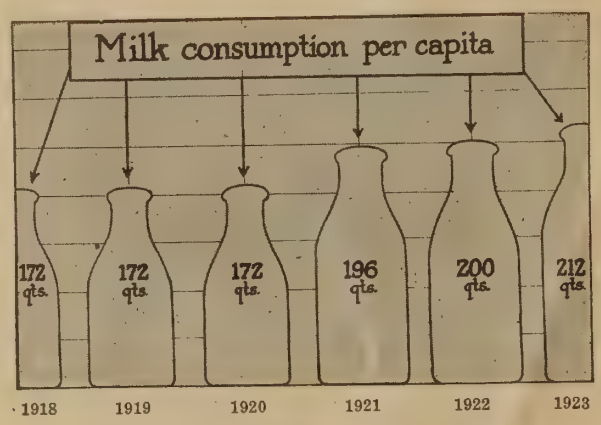
The above illustration is based on the post-mortem of 178,760 animals.

NUMBER OF TESTS REQUIRED TO FREE HERDS OF TUBERCULOSIS



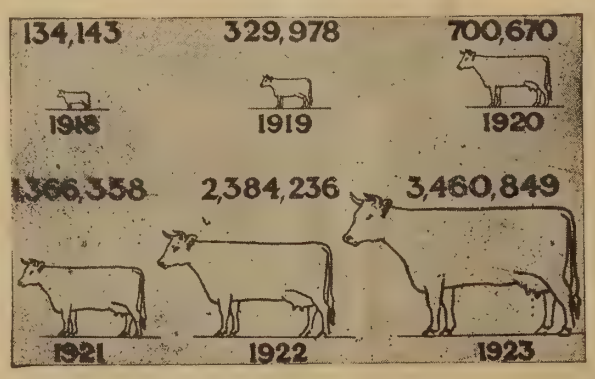
NUMBER TUBERCULIN TESTS REQUIRED TO FREE HERDS OF TUBERCULOSIS

Herds	Cattle	1st test %	2nd test %	3rd test %	4th test %	5th test %	6th test %	7th test %	8th test %	9th test %	10th test %
16,080	327,972	12.2	0.0								
4,608	114,271	18.0	5.9	0.0							
2,137	61,965	18.6	6.8	4.1	0.0						
1,039	34,879	18.0	6.6	3.4	3.1	0.0					
386	18,321	17.0	6.4	4.4	3.3	2.8	0.0				
188	7,980	10.3	3.4	3.9	2.6	2.1	2.1	0.0			
79	3,908	11.9	3.2	3.1	2.8	1.7	2.6	1.8	0.0		
33	2,005	18.9	4.1	4.7	3.5	4.2	7.1	1.9	2.3	0.0	
24,550	571,301										



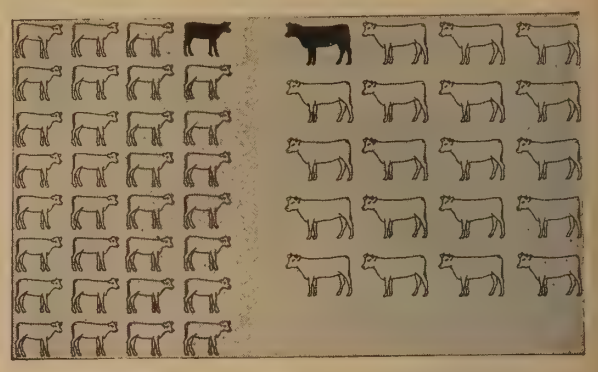
PER CAPITA CONSUMPTION OF MILK FOR THE LAST SIX YEARS

CATTLE TUBERCULIN TESTED ANNUALLY IN THE UNITED STATES UNDER THE SYSTEMATIC PLAN FOR TUBERCULOSIS ERADICATION, 1918—1923



Increase in the size of these cows from year to year indicates increase in sentiment favoring tuberculosis eradication.

EXTENT OF TUBERCULOSIS IN CALVES IN INFECTED HERDS



CALVES Under 6 Months	CALVES 6 Months to 1 Year
1 in every 32 tested was tuberculous	1 in every 20 tested was tuberculous

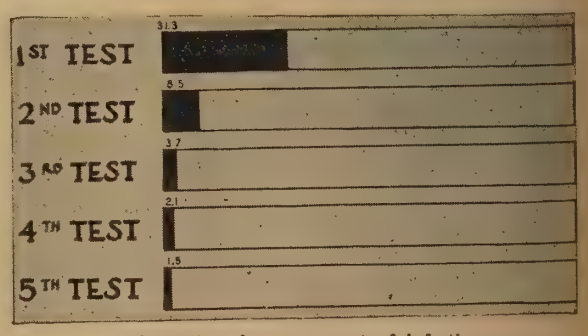
Age	Number tested	Reactors No.	Reactors %
Under 6 months	50,039	1,564	3.1
6 months to 1 year	74,299	3,626	4.9
Total	124,338	5,190	4.2

TREND OF INDEMNITY PAYMENTS FOR REACTORS



Year	Appraisal	Indemnity State	Indemnity Federal	Total	Salvage	% pure-bred
1920	$177.00	$63.47	$31.41	$94.88	$34.00	33
1921	141.23	54.00	27.00	81.00	22.00	36
1922	110.90	36.42	23.76	60.18	17.55	27
1923	98.94	33.55	21.48	55.03	18.57	26
1924	92.55	29.20	20.49	49.69	15.93	15

SUCCESS IN FREEING BADLY INFECTED HERDS OF CATTLE FROM TUBERCULOSIS



Dark portion shows per cent of infection.

FIGURES ON WHICH CHART IS BASED

Test	Herds	Cattle	Reactors Number	Reactors %
1	5,627	139,604	43,764	31.3
2	5,457	119,997	10,148	8.5
3	5,133	115,552	4,302	3.7
4	2,502	70,488	1,477	2.1
5	862	31,202	468	1.5

IT is difficult to appreciate how rapidly tuberculosis eradication work has developed in this country. Prior to 1918 and before there was adopted a uniform plan for tuberculin testing of cattle, the work of tuberculosis eradication moved forward rather slowly. During the twenty or more years that tuberculin testing was being carried on by a few breeders and stock raisers, the necessary knowledge for laying systematic plans of handling herds suffering from tuberculosis and methods of tuberculin testing were being learned. The tuberculin testing of herds here and there did not produce the results comparable to area testing, but it laid a foundation for the plan now under operation and which is meeting with approval and success.

When the plan was adopted for carrying on tuberculosis eradication work under the supervision of the state and federal governments, there were many who wondered just how rapidly the stock raisers of this country would desire to place their herds under governmental supervision. The illustrations on this page showing the growth of the work since 1918 to 1923, inclusive, visualizes, to some extent, how rapidly the sentiment in favor of the tuberculin testing has developed. It does not tell the whole story.

The number of herds which have been tuberculin tested are 585,522 containing 5,222,047 head. Thte total number of accredited herds are 51,-262 containing 956,178 head of cattle. The total number of herds under supervision are 775,758 containing a total of 8,047,645 head. The total number of herds on the waiting list are 246,602 and contain 2,659,320 head.

More work would have been done and a great deal more accomplished if the state and federal governments, had been given larger appropriations. We rather favored moving forward slowly in this splendid work, for we fully appreciate adopting sound methods of procedure, the necessity of well-trained men being in charge, and the development of public opinion in favor of tuberculosis eradication. We do believe we have developed a sound system of handling herds containing diseased animals and have well-trained men to carry on the work. In view of this, larger appropriations can be made by the state and federal governments and the money will be economically expended. Those in charge of tuberculosis eradication work, both in the federal and state governments, should be congratulated upon what they have been able to accomplish. The live stock raisers are to be commended also for the splendid co-operation they have given in carrying on plans for eradicating tuberculosis from their herds and flocks.

Langwater Ultimas and Five of His Daughters



WESTVIEW SUZETTE
Record: 11,144.7 lbs. milk, 652.86 lbs. fat—Class G.



GUERNSEY BULL, LANGWATER ULTIMAS
Purchased by F. J. Reuping, Wisconsin, for $10,000 at the Westview Farm Dispersion Sale.



WESTVIEW BUTTERCUP
Record: 10,814.9 lbs. milk, 605.97 lbs. fat.



WESTVIEW EULALIE
Record: 12,058.5 lbs. milk, 684.41 lbs. fat—Class FF.



WESTVIEW YVETTE
Record: 11,631.6 lbs. milk, 649.17 lbs. fat—Class F.



WESTVIEW BERNICE
Record: 12,515.7 lbs. milk, 607.92 lbs. fat—Class G.

The first six daughters of Langwater Ultimas to be tested, all with first calf, averaged 11,514 lbs. milk, 626.5 lbs. fat, a record for the breed. All of his tested daughters—ten—averaged 587.9 lbs. fat as first calf heifers. These same ten sold for an average of $1,237. Twenty-four of his get sold at the Westview dispersion for an average of $893.

A Tarheel Co-operative Creamery

F. H. JETER, NORTH CAROLINA

A SINGLE co-operative enterprise within the town of Mooresville in Iredell County, North Carolina, has taught the entire community the value of co-operation. This is the Mooresville co-operative creamery owned and operated by 198 stockholders, mostly farmers of the surrounding territory. The plant converts into rich, yellow butter the cream from 1085 farmer patrons, paying out to them last year $134,494.52 for the butterfat bought. There are 208 shares of stock in this co-operative enterprise which sold originally for $25 per share. A shareholder is not so greatly favored except that he controls the policies of the creamery. He gets only one cent per pound more for his butterfat than that paid to an ordinary patron. In case he owns a large number of producing cows this one cent premiums means much to him, otherwise not.

This co-operative enterprise, according to an audit of its business for the fiscal year ending June 30 of this year, did a volume of business amounting to $160,403.96. This was the amount received for the butter and buttermilk sold.

The creamery was hard pushed once or twice during the year to supply its trade, making it necessary to buy 7,767 pounds butter from outside sources. The total amount of butter sold during the year was 353,383 pounds—all of it a high class, fine quality product made by an experienced and well trained buttermaker and shipped in modern containers to the ultimate consumer.

The average price paid by the creamery to its patrons for butterfat was 48.2 cents per pound as against 45.2 cents for the year before. The average selling price of the butter was 45.2 cents per pound as against 42.7 cents for the previous year. The increase in production over the previous year amounted to something over 8,000 pounds.

"But we had a hard time getting fully established," said the grizzled secretary-treasurer, Mr. J. A. Stewart, himself a farmer and generally recognized by those who know as the man who has done most to make the enterprise successful. "Yes, we had a hard time. I put my own money into it time and time again during the first few years to keep it under way. We first began as a small group selling cream to a creamery located in another town. This group we used as a nucleus and in 1914 we organized the present creamery.

"It didn't look like it does today either. Of course we began on limited equipment. We had the brick building located on this excellent lot, but we didn't have much inside. The ceiling wasn't in, nor was much of the equipment that you see here today. But we have built gradually and surely, adding to our equipment and staff as we could and always playing fair and square with our patrons and stockholders. Now we are established. Except for a small surplus of butter early in the spring when the pastures come in, we are hardly ever able to fill all orders sent us, but we never lower our quality or standards to simply fill orders.

"Here about us is a good farming country with good farmers and fertile lands. We have good pure-bred cows from which to draw our butterfat supply and these cows graze on clover and excellent pastures which when supplemented with plenty of other feed, help to make good butter."



A SUCCESSFUL CREAMERY IN NORTH CAROLINA

The creamery is located at an advantageous place near the railroad in the business section of Mooresville. The lot next door belongs to the organization and will permit of expansion whenever conditions justify. The building is of red brick, the floor of concrete, and the walls and ceiling are painted a spotless white.. Screens keep out the unwelcome flies and a steam boiler furnishes live steam to destroy any malignant germ that may have designs on the health of some one who eats the butter. There is a cooler room with two power machines ready to keep the temperature at any low degree desired. Two tremendous churns are at one side and a battery of pasteurizers, ripeners, and coolers are to another side. On a concrete table at the receiving door are the scales for weighing each patron's cream as it comes in from the route. Here also are the sampling bottles and the other small paraphernalia needed in any modern up-to-date plant. The stock of containers for shipping the finished product is kept in a small room at the back and a clean table in front furnishes a packing place as the fresh, firm butter is brought from the refrigerating room to be packed for shipment.

Nearly everything is done by machinery except the actual packing of the butter into the little pound boxes. But even then it is wrapped in wax paper and the hand hardly touches the finished product. Two clean-cut young men cut the butter with the patented contrivance that

(Continued on page 387)

THE DAIRY CATTLE CONGRESS







SENIOR AND GRAND CHAMPIONS AT DAIRY CATTLE CONGRESS

HOLSTEIN COW, ZWINGARA SEGIS CLOTHILDE
OWNED BY MODERN WOODMEN SANATORIUM, COLORADO

GUERNSEY COW, HONEY BLOOM OF THE PRAIRIE
OWNED BY W. W. MARSH, IOWA

AYRSHIRE COW, S. F. HELEN R.
OWNED BY ADAM SEITZ & SONS, WISCONSIN

ANY one who has anything to do with the management of fairs or cattle shows can learn a lesson from the Dairy Cattle Congress. Established in a country that is far from being a good dairy section and without paying large premiums, Manager Estel and the other men responsible for the management of the show have made it one of the most successful held anywhere.



UNIVERSITY OF WISCONSIN DAIRY CATTLE JUDGING TEAM WINNERS

Left to right (back row) Harry Hill, Geo. Kloser, R. S. Hulce (coach). Front row: Geo. Bracke (alternate) and Walter Farner.

Every year finds an improvement over the previous one. It was so this year. The 1924 show held Sept. 22—28 had more cattle than in 1923, more commercial exhibits, and a very much better attendance. Increased barn space has been provided for the cattle and while this will no doubt have to be further increased in the future, the great need now is for a larger exhibit building that will better accommodate the commercial exhibits and the crowd that is there to see them. Another year as successful as 1924 should make this possible.

One of the good educational features this year, and possibly it is one that many missed because it was in a building just a little away from many of the others, was the cow test association and government exhibits. The latter, quite similar to that put out by the Department of Agriculture every year, occupied about a third of one of the new barns and any one who studied the lessons it pictured could not but learn something of the do's and don'ts of dairy farming.

The cow test exhibit featured a scrub bull, in a box stall, labeled "A cow freshener, not a bull", and over it an axe and a placard with the admonition "Use the axe and avoid financial suicide". Proof of the necessity of this was found in a group of cows nearby. One was a typical scrub with no record and nothing about her to indicate that it would be possible for her to make even a poor one. Next was one that was fed at a loss and beside her one typical of the average cow of Iowa. She produced 135 lbs. of fat at a net profit of $8.12, a fine return for investment and labor. Above her were three *dairy cows* with records from 318 lbs. to 508 lbs. of butterfat. These cows that had made profits for their owners of as high as $170 in a year, were the best of proof that in the dairy business it pays to breed and feed intelligently.

The Junior Show

The calf club show this year was far and away the best ever seen at Waterloo and those in charge of such events tell us it was one of the very best of the year, the quality of calves shown being especially good.

There were 77 Holsteins, 23 Guernseys, 15 Jerseys, 6 Ayrshires, and 6 Brown Swiss, and when they were out for judging on Wednesday it made quite as interesting a show as any of the week. John Wilcox of Jones Co., Iowa, showing a yearling Holstein heifer, was awarded grand champion showman honors.

Students' Judging Contest

With twelve teams competing, Wisconsin, tenth in last year's contest, showed a complete reversal of form and finished in first place with 1,548 points, 47 points ahead of Ohio in second place. Below them were the teams from Illinois, Nebraska, Minnesota, Texas, Ames, Kansas, North Dakota, Missouri, Purdue, and South Dakota placing in the order named.

The Wisconsin boys piled up their lead of points by finishing first as Holstein, Guernsey, and Ayrshire judges. Texas did best with Jerseys and Ohio won on the Swiss.

Geo. Kloser of Wisconsin was the best individual judge with a 560 score. He rated as the best judge of both Holsteins and Ayrshires, took second place in judging Jerseys, and third with Guernseys. J. B. Ball of Illinois and Geo. A. Mark of Iowa went to second and third places in the individual scoring.



FARCEUR'S CIVETTE, JUNIOR AND GRAND CHAMPION MARE
OWNED BY C. G. GOOD & SON, IOWA

Junior Judging Contest

The junior judging contest this year was a winner. Twenty-one teams representing Iowa counties competed for state honors with Franklin first, Fayette second, and Clayton third.

Robt. Stewart was the best judge of all and next to him were Harlon Leonard and Gertrude Kaiser in second and third places respectively.

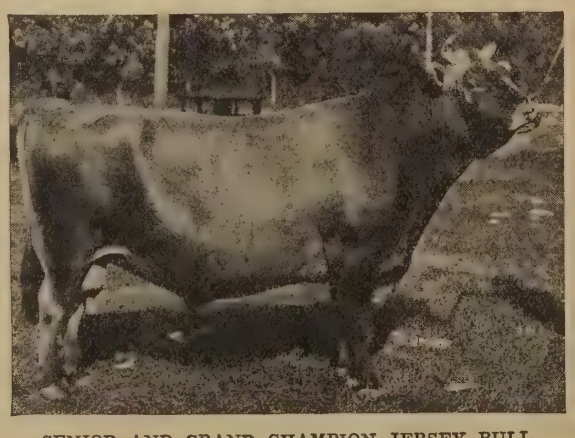
The Dairy Cattle

The cattle show at Waterloo was larger than that of a year ago and with most of the breeds it was of fully as good quality if not better. Two new cattle barns have been added since last year, which, together with those built earlier and the old, main barn, took care of the entire 775 head nicely. The only disadvantage is the long lead from some of them to the arena and the fact that being a little scattered, as they are, does not make it so convenient for show visitors to see them all.

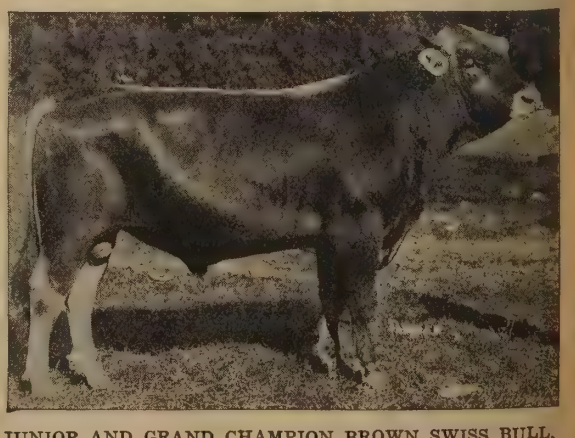
The show included herds from South Dakota, North Dakota, Iowa, Minnesota, Wisconsin, Illinois, Indi-



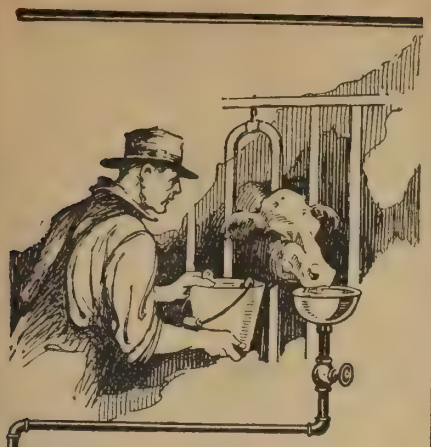
SENIOR AND GRAND CHAMPION JERSEY COW, FINANCIAL SIMPLE INTEREST
OWNED BY PEBBLE HILL PLANTATION, GEORGIA



SENIOR AND GRAND CHAMPION JERSEY BULL, ADELINA'S SULTAN
OWNED BY PEBBLE HILL PLANTATION, GEORGIA



JUNIOR AND GRAND CHAMPION BROWN SWISS BULL, URSULA'S STASIS
OWNED BY L. S. MARSHALL & SON, MICHIGAN



Bigger Milk Yield!

with fresh water direct from well ---

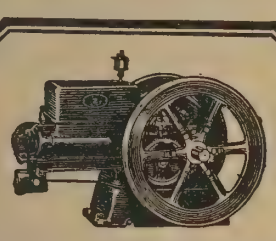
3 to 10 lbs. more milk per cow daily with one seventh less feed. That's what fresh water, direct-from-well, at natural temperature with the Milwaukee Air Power Water System means to the dairyman. The Milwaukee Air Power delivers water any distance, under powerful pressure. The only system with double cylinder air power pump.



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AIR POWER WATER SYSTEM



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3 h. p. Battery Equipt $83.50	6 h. p. Magneto Equipt Uses Kerosene $153.50
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FREE BOOK

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746 N. 5th St., Salina, Kans.

ana, Ohio, Michigan, Georgia, Washington, Nebraska, and Colorado, four states more than a year ago, with the heaviest representation from Iowa, Wisconsin, and Minnesota.

Holsteins

Judge: R. E. Haeger, Illinois.

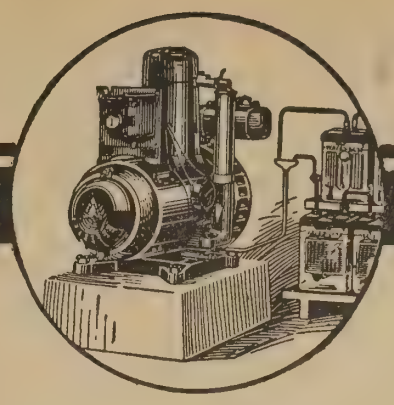
Exhibitors: F. W. Seeley, E. J. Erickson, Geo. Fox, Geo. E. Cunningham, Board of Control of State Institutions, Marie Cornish, Hanson-Sauerbry-Mc Laury, W. B. Loveland, H. Umlandt, Hanson-Gilley-Knief, Bryant & Thompson, Vincent Mc Laury, M. E. Kinney, Earl Kinney, Dorothy Hanson, Robert Stewart, Fred Pieplow, G. & L. Svestka, Godlov Svestka, Henry Steiner, Francis Allen, Isabelle Fallon, Margret Johnson, Lloyd Porter, Noal Polton, Ivan Minnis, Charles A. Zilk, Donald E. Shrode, Milton L. Shrode, Orvale Trettin, Gerald Peterson, Donald Peterson, Verna Peterson, Paul Jacobson, Robert Peterson, Webster County Calf Club, P. P. Stewart, Hargrove & Arnold, Iowana Farms, Jack Fry, Wilfred Dress, Ernest Milberg, Iowa; Taylor & Christgau, Agnes Knight, Mudcura Farm, Minnesota Holstein Company, Marlow & Randall, Minnesota; South Dakota State College; H. A. Brace & Sons, J. E. Piek, Philip Linker, C. A. Schroeder & Son, H. F. Schroeder, Washington County Holstein Association, Fred Albrecht, Jefferson County Asylum, Harold Marsch, Fred Gurr, J. E. Mack, Baaltz Hoesley, August Korth, Earnest Nass, John Piper, Emil Funk, W. O. Sayer, Milford Meadows Stock Farm, Wisconsin; Modern Woodmen of America Sanatorium, Colorado; Woodlawn Dairy, Union College, University of Nebraska, Kilpatrick Bros., Nebraska; Carnation Milk Farms, Washington.

"The best show that I've seen this season," was the way the judge characterized the Holstein showing and every one present agreed with him. More than that it was the best we have ever seen at Waterloo. There were 201 head from six different states and in a majority of the classes practically all of the ribbon winners were good ones, with plenty of close decisions to be made. In that connection it is worthy of note that regardless of the closeness of the decision, when the reasons for such a decision were given, there was a noticeable lack of criticism of the judge. His work was, we think, very acceptable to both exhibitors and audience.

Twenty-five aged cows made one of the best classes of the show with Zwingara Segis Clothilde, owned by the Modern Woodmen Sanatorium, the outstanding member of the class. She is a true dairy cow with the top, rump, veining, and udder that would catch every breeder's eye. She is very good as it is and with just a little more size would be very hard to beat in any ring.

Of the four-year-olds perhaps the less said the better—it was not a good class. The three-year-olds were much better, with three that every one recognized as entitled to the top places—Madam Artis Wayne Denver owned by the Jefferson County Asylum, Maudline Ollie Homestead from the Minnesota Holstein Co. herd, and Mankato O. K. L. Blanche entered by Marlow and Randall. While any or all of them may, before this appears, be beaten at the National, they are undoubtedly the three best that have appeared in any ring thus far this season. The first heifer is altogether too heavy at the shoulders and carries a little too much flesh elsewhere, but she has an advantage in udder capacity and rump that kept her at the top. The Minnesota Holstein Co. entry, while she appeared to have the poorest udder of the three, was considerably better than

(Continued on page 369)



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EDITORIAL COMMENT



THE U. S. Dept. of Agriculture states the last case of foot and mouth disease reported in California was disposed of August 23rd, making an entire month of no new outbreaks of this disease. The government is still watching very closely the premises on which foot and mouth disease occurred; also the range country and forest sections.

The elapse of one month without any new outbreaks of foot and mouth disease is encouraging, but it is well the government officials should be alert for any infection which may have escaped them.

ACCORDING to the U. S. Department of Agriculture, the per capita consumption of milk and cream has increased about 12 per cent during the past ten years, and the per capita consumption of butter more than 6 per cent. This condition has undoubtedly been brought about by educational campaigns advising the consumer of the food value and necessity of milk and its products. The results of investigations to determine the part that milk plays in the human diet for growth, health, and development have caused people to modify their diet and to use more dairy products. We would be a healthier and stronger people if the consumption of dairy products were doubled.

THE EROSION PROBLEM

Many farmers fail to recognize they have an erosion problem unless their fields are gullied. It is quite possible that sheet erosion, which takes place all over the hill, may carry away more fertility even than where the water gullies out the field.

The Illinois College of Agriculture recommends terracing as the most effective method of controlling this erosion. The type of terracing it suggests checks the flow of the surface water, thereby preventing soil washing and assists in the maintenance of the productive capacity of the soil. Such terraces after being built are not difficult to maintain and their cost should not exceed two dollars an acre even where the labor must be hired to do the work. It is said that these terraces do not interfere with the usual farming practice.

For those who are interested in this problem, it would be well to write the College of Agriculture, Urbana, Illinois, for a copy of Circular No. 290, entitled, "Saving Soil by Use of Mangum Terraces".

WORK DEVELOPS MEN

Whenever a census is made to determine the birthplace of the leaders in industry, in statesmanship, and in various other activities of the city, it is invariably found that a large majority of them were born on the farm. There is nothing in the inheritance of farm-born men to make this difference. The people of the city and of the country have a common ancestry. It is quite possible the city has a higher percentage of shiftless and ne'er-do-wells than the country. The city life is simpler and easier. The factor which contributes so much to a successful man lies, we believe, in having an early experience with work. The boy at a very early age is taught to do some useful thing and is given a responsibility. This early training, to us, is of immeasurable value because it develops tenacity, determination, and initiative, which are all essential in directing any worthwhile enterprise.

Mr. T. H. Beacom, receiver of the Denver & Rio Grande Western Railway, recently stated in an address: "I was fortunate in having spent my youth on the farm, and while my opportunities for schooling were limited, taken between crops, I learned one thing that I have never forgotten; I learned how to work hard and from early dawn to late at night, and I sometimes think that we would fare better if our youngsters of today worked more and played less."

NATURE'S PERSISTENCY

We have been much interested for several years in watching the persistency with which certain grasses in lawns modify their form and habits to accommodate themselves to changed conditions and environments in order to accomplish their purpose. The grass on these lawns is cut frequently, thus preventing it from attaining the usual growth preparatory to flowering and seeding, but nature, strong and unyielding in its purpose, which in the case of plants is to produce seed, has developed a form, particularly in Kentucky bluegrass and less markedly as yet in timothy, which defies the lawn mower; the little seed heads are so close to the ground.

We realize, of course, that this is only another manifestation of the general law that plants observe in becoming acclimated, but its occurrence under our own observation and in so brief a time has had the effect to strengthen and confirm our belief in its wider application. If the plant, in successive generations, develops a habit of growth and takes on a form in harmony with its environments and the new demands made upon it, why is it not reasonable to expect that the animal will do the same? There is a much closer correspondence between the laws which govern vegetable life and animal life than we are accustomed to realize, and the points in common in animals of various species probably far outnumber those in which they differ.

If, then, the grasses of the lawns and fields, no less than the beasts of the forests and farms, when subjected to the demands which man makes upon them for his profit or his pleasure, can and do so materially modify and change their original forms and habits, why is it that so many of us continue to insist upon rearing thistles when we want grapes; that is to say, upon breeding for beef when we want milk? Why not accept the teachings of nature and aid, rather than attempt to thwart, her efforts to adapt form to purpose?

A POOR FARMER

All summer long we have been watching a corn field being taken care of by a certain farmer. We have studied his methods of cultivation, the time he spent in the field, and are led to the conclusion that if corn were to sell at $5 a bushel, this farmer would not get a return of 25c an hour for his labor.

This particular incident is one of the best examples of poor methods of farming, inefficient understanding of how to handle a corn field, we have ever observed. We have seen men plant corn and neglect to cultivate it. This man did not do that. He has worked hard—so hard that he is dull. He hasn't time to read. He is too busy trying to hoe and cultivate his poor crop of corn. He cultivates, and he hoes and still the weeds are nearly as vigorous and strong as the corn. There is no great lesson in this particular field of corn or this farmer. It does reveal, however, very emphatically that it requires skill to know how to handle a corn field or any other kind of field. It also shows that some men are not adapted to being farmers. Our sympathy always goes out to such men and we are led to wonder how they manage to hold on to their farms when they exercise so little skill in their operations.

COUNTIES PASS T. B. LAWS

Eight counties of southern California have passed a tuberculosis ordinance, the purpose of which is to assist in the eradication of bovine tuberculosis. No cattle are permitted to be shipped into any one of these eight counties, except for immediate slaughter, without obtaining a permit from the county live stock inspector. They must be accompanied by a certificate signed by a federal, state, or county veterinarian, live stock inspector, or similar officials.

Immediately upon the arrival of cattle in any one of the counties the fact must be reported in writing to the live stock inspector. No person shall be permitted to inject tuberculin in any of the cattle brought into these counties for a period of 120 days.

An ordinance of this character should be supported by every dairy farmer who is attempting to eradicate tuberculosis from his herd. There is little use of going to the expense and labor of applying the tuberculin test and eradicating reacting animals from a county unless some provision is made to prevent the shipping in of diseased animals. We can not exercise too much care in handling territories attempting to get rid of tuberculosis.

OLEOMARGARINE PREMIUMS

To induce the dairy farmer to use oleomargarine, a manufacturer of oleo offers an extra heavy, twelve-quart milk pail as a premium. This pail can be obtained by saving the cartons from twenty pounds of oleomargarine. The offer reads as follows:

"To induce you to become a user of —— —— margarine, we will give free of all cost to you one 12-Quart Dairy Pail.

"All you have to do is to *Save The Empty Cartons* from 20 pounds of —— —— margarine.

"Bring them to our store and we will give *Free* one of these useful *Pails*. If purchased in the regular way it will cost $1.00."

We presume some dairymen will accept this offer and will milk their cows this winter in the milk pail offered as an inducement to dairy farmers to eat oleomargarine.

From such farmers we will hear the greatest complaint regarding the prices of dairy products although by their action they have helped to reduce the price of butter. It is their privilege, of course, to eat oleomargarine if they desire to do so, and it is also their privilege to complain. But it is likewise the privilege of others to condemn their folly and to point out their inconsistency. If a dairy farmer will not consume his own product he has no just basis for complaining about the prices of dairy products.

THE RADIO AND ITS OPPORTUNITY

No invention has meant more to farmers from the standpoint of entertainment, recreation, and contact with the affairs of the world than the radio. Since it has been perfected and various radio stations established for sending out programs of entertainment, news, and information, farmers have purchased radios by the thousands. It is estimated by the United States Department of Agriculture that more than 370,000 radio sets are in use on farms, as compared with 145,000 a year ago. This indicates the farmer appreciates the radio and the service it renders him. It brings him in contact daily with the world affairs, providing him with entertainment and interesting news.

It has been pointed out that the radio will be a large factor in correcting erroneous reports which are made by so many of our daily papers. There is much false propaganda being disseminated among the people of this country and if those who have established radio stations will be careful to distribute useful and accurate news and information, as well as entertaining programs, the radio will have one of the largest influences in developing this country that has ever been discovered. The American people inherently desire to be right and they can be trusted upon all issues if they can only get a proper understanding of them. We are living in a time when a great many newspapers and various other agencies and independent individuals are appealing to the prejudice of the public mind rather than to reason. It is our sincere desire that those providing the programs for the radio will exercise the greatest care to disseminate accurate and useful information. This country cannot survive if prejudice takes the place of reason.

Bran Would Improve Ration

Kindly give me a ration for good production from the following: Alfalfa, soy bean hay, clover hay, corn silage, corn and cob meal, oats, oil meal, and cottonseed meal. I have a mill for grinding my own grain and hay. If necessary, I can get bran in addition to the above.

Port Deposit, Md. J. T. C. H.

It is an easy matter to make a good ration of the feedstuffs on hand. When the roughage is made up of legume hay and corn silage, it is rather difficult to make a ration that would not be very satisfactory and produce good results. It would be our suggestion that every cow be given daily 30 pounds of corn silage, or about three pounds per 100 pounds live weight, and all the alfalfa, soy bean, or clover hay she will consume.

A mixture consisting of 400 pounds corn and cob meal, 300 pounds ground oats, 50 pounds oil meal, and 50 pounds cottonseed meal will supplement the roughage well. It will require about one pound of this mixture for each three and one-half pounds of milk produced. The addition of 100 pounds bran to the mixture we have suggested would improve it to some extent. Whether it should be added would depend almost entirely upon the price of bran.

Sweet Clover on Low Land

My farm consists of rather low land and in wet weather with cows tramping it up it would not be long before the field would be much more than mud. Would sweet clover survive under these conditions? Then, too, I understand a fresh pasture or a fresh seeding must be prepared each year. Is it possible to sow seed each year in an old pasture so as to make it a little more permanent?

Western Springs, Ill. S. G. M.

Sweet clover will stand much more wet than will alfalfa; in fact, in the western part of the country you see it growing on the banks of the irrigating ditches close to the water's edge. It will not be successful in a real slough pasture that is wet a good part of the season, but I have known it to be a success in a low pasture in McHenry County that is so wet it has never been plowed.

If your pasture is like the latter and you once get a good stand two successive years and then allow some of it to go to seed each year, you should have a continuous pasture.

If you do not wish to raise any kind of small grain to get a sweet clover pasture started, I would suggest that you sow the sweet clover alone; or, perhaps better still, with a thin nurse crop of oats, and turn the cows on when this is about a foot high. It is usually two months after sweet clover is sown in the spring before it should be pastured. W. J. FRASER.

Illinois College of Agriculture.

Sweet Clover on Western Pastures

We are milking fifty cows. Our pasture, containing about 100 acres is poor and gives us very poor results. As near as we can tell, it contains simply native grasses and weeds. There is good growth all summer but the cows do not relish it. They fill up on it, however, and keep in fairly good condition but the milk production is very low.

We plan to plow and reseed at least 50 acres of our pasture this fall. Do you recommend the exclusive use of sweet clover?

Cockeville, Wyo. N. & T.

Much of the old prairie grass in the western great plains is losing its original grazing capacity because of the encroachment of weeds. Overgrazing has undoubtedly contributed to much of this weed encroachment.

During the past month I have seen many fields, in the western Dakotas, badly infested with gumweed and similar pests. A good sweet clover pasture can be established on this kind of land. Eight to ten pounds per acre of biennial sweet clover seed seems to be about the right amount to use. If seeded alone, it should establish itself well, provided the seed bed is firm and reasonably clean. Sweet clover, however, has a greater ability to fight weeds and establish itself on weedy land than any other type of pasture crop.

Some prefer the biennial yellow sweet clover. It has the advantage of earliness in the spring, but it is distinctly earlier maturing in the fall; so much so that the white blossom sweet clover would seem to be preferable because of the greater length of grazing season thus obtained.

In order to have pasture land available all the time, there needs to be at least two pastures—one of the biennial sweet clover in its second year of growth during which year it will furnish the greatest amount of pasture but which will become rather short in the late fall. There should then be available a new seeding of sweet clover for this late fall pasture. Sweet clover is a biennial so that time must be allowed for it to grow up large enough so that it is safe to graze without material injury to the plant.

Where rainfall is less than 15 inches, sweet clover will ordinarily establish itself better without the use of a nurse crop than where a nurse or companion crop is used. H. L. WALSTER.

North Dakota College of Agriculture.

Silo Bacteria

We find in agricultural papers that the use of silo bacteria is recommended in filling silos. If you have any literature dealing with this subject, and from which we could secure some information on silo bacteria, we would be pleased to have you send us same.

Philadelphia, Pa. S. W. E.

So far as our present information goes, there is no advantage in using the so-called silage bacteria for the preservation of silage, particularly where corn is ensiled. It is our opinion that farmers will do much better to see that their silos are in good condition and that the silage is well packed than to spend time and money in adding lactic acid forming bacteria to the corn. The corn already carries a large number of the bacteria and they will increase in sufficient amount for preservation purposes if the silage is properly put into the silo. In addition to bacterial action, there are also physical and chemical changes in the plant cells that play an important part in silage preservation.

The claims sometimes made that the lactic acid bacteria fermentation will inhibit or prevent the formation of alcohol in corn silage is not well founded. In addition, in the ordinary changes that go on in silage, not over one-half of one per cent of alcohol is formed. Even if the formation of this amount of alcohol could be prevented, the nutritive value of the silage would not be materially changed.

Semi-solid Buttermilk

We wish you would advise us what is the process of manufacture of semi-solid buttermilk and what is the equipment required?

Muskogee, Okla. W. N.

Semi-solid buttermilk, also called concentrated buttermilk, may be made in one of two principal ways, namely, by mechanically removing some of its liquid portion, or by evaporating a portion of its water.

Concentrating buttermilk by removing a portion of the whey: This is accomplished by permitting the curd in the buttermilk to settle by gravity and then drawing off and rejecting the whey. In this case the fluid buttermilk is conveyed into a wooden tank, either a horizontal vat or a vertical stave tank. The tanks usually contain several outlets or gates located at different heights so as to facilitate the removal of the whey as fast as the curd settles. The tank is usually equipped with a steam pipe for heating. The buttermilk is heated to the boiling point in these tanks, either by blowing live steam into it or by running steam through the pipes installed into the tank. The heat is maintained for several hours. This causes the curd to contract, become heavier, and settle to the bottom in the form of fine particles, leaving a clear whey on top. This whey is drawn off through the gates located above the stratum of the curd. The residue, consisting largely of casein, albumen, lactic acid, mineral matter, and a small amount of milk sugar and water, represents the condensed buttermilk. The concentration or, more correctly speaking, the reduction in volume thus accomplished is at the ratio of about 4 to 5 parts of fluid buttermilk to one part of condensed or semi-solid buttermilk.

It is obvious that in this form of concentration all of the valuable food elements contained in the original buttermilk are not reclaimed. Most of the milk sugar and much of the lactic acid escapes in the whey and are lost. However, the equipment required for this process is simple and inexpensive and the process requires no special knowledge on the part of the creamery personnel. Unless previously ripened to a high acidity, this type of semi-solid buttermilk does not keep well at ordinary temperatures. If stored at all, it must be stored in the cold.

For many years, efforts have been made to remove the whey from the buttermilk by centrifugal separation. Machines are now on the market and in use in which the curd of the buttermilk collects on the walls of the revolving bowl or basket while the whey is centrifuged out. These machines are similar in principal to the well-known laundry centrifuge. They have been successfully used by creameries that are engaged in the manufacture of buttermilk cheese. Their operation, however, is intermittent only. When the basket fills up with curd, the machine must be stopped and the curd removed.

For the purpose of handling large volumes of buttermilk daily, these centrifuges are obviously not well adapted. They are too limited in capacity and in speed and volume of performance. Efforts to devise a centrifuge for continuous operation, similar to the cream separator, have so far failed. The specific gravity of the curd in the buttermilk is so nearly like that of the whey that the centrifugal separator refuses to discharge a liquid rich in curd through one spout and a liquid of practically clear whey through a second spout.

Condensing buttermilk by evaporation of water: In this case none of the valuable solids of the original buttermilk are lost. The only ingredient removed is the water of the buttermilk. This can be done either by atmospheric condensers or by vacuum condensers. The great bulk of semi-solid buttermilk that reaches the market today is manufactured by evaporating a portion of the water from the buttermilk in the vacuum pan, and the buttermilk is concentrated until its solids content amounts to about 28 to 30 per cent. In order to make the semi-solid buttermilk keep, it is necessary to ripen it sufficiently to have the finished product contain not less than 3.5 per cent acid. This ripening is usually done at a temperature from 80 to 90 degrees F. and it is facilitated by blowing air through the buttermilk. The ripened buttermilk is heated to the boiling point and then drawn into the vacuum pan where it is condensed to a semi-solid fluid, after which it is filled into barrels.

The equipment needed for this work consists of one or more buttermilk storage tanks, a vacuum pump and vacuum pan, one or more hot wells, a steam supply at the rate of 150 H. P. boiler capacity, for condensing about 5,000 lbs. of buttermilk per hour, and a water supply for the same volume of buttermilk of about 125 gallons per minute.

The manufacture of semi-solid buttermilk by evaporating a portion of its water in a vacuum pan must be done on a fairly large scale in order to be fairly economical and profitable. It is estimated that a creamery should have an output of from two to three million pounds of butter a year in order to make it worth while to install and operate a buttermilk condensing outfit.

Illinois. O. F. HUNZIKER.

Cows Don't Give Down Milk

We have a dairy farm of 360 acres and milking 65 cows. We want to, and expect to, be milking 100 by this time next year. We use a milking machine and have a lot of trouble with the cows holding up their milk. We wanted to ask you if other people had the same trouble and is there anything we could do to prevent this? We have been using the milking machine three years and seems as though we have had more trouble this year with them holding up their milk. We began feeding about one-half to a gallon bran to each cow just as we would put the milker on. That helped some for awhile but didn't last long. Do you think it a good idea to rub their udders or fool with them in any way when we put the milker on to try to get them to give their milk down?

Fort Scott, Kans. B. L.

The difficulty mentioned is not at all uncommon. It is especially common for cows to hold up their milk in the latter part of the lactation period, or when they are giving only a small quantity of milk. It is at this time that a little care and a little patience will make machine milking a success while if the machine is put on the cow and operated as though the cows were inanimate, the cows may hold up their milk and, therefore, dry up earlier than they should. Some may even get swollen and diseased udders.

The milker should always see that the milk is given down before the milking machine is attached, and the idea stated by the correspondent "to rub the udders and fondle with them" is excellent. It should always be practiced before the machine is attached, especially with cows that are inclined to hold up their milk.

Heavy milkers as a rule give down their milk immediately when preparations for milking are being made. Some give down their milk when they hear the milking machine start. But a cow that is not a full milker does not give down her milk so readily. No milking machine, nor any other artificial force, can draw the milk from a cow if she "wills" to hold her milk, and there is no need of attaching the machine if the cow does not give down her milk. C. LARSEN.

South Dakota College of Agriculture.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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Corresponding Editorial Staff:
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Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

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Coming Events

Oct. 17 and 18—International Association of Dairy and Milk Inspectors at Detroit, Michigan.

Oct. 21-22—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition. Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Sale Announcements

Nov. 17—Holstein Dispersal, Oak Hill Stock Farm, John H. Smith, Prop., Crown Pt., Ind.

Uncle Ab says the men who talk the least and do the most not only get the most results, but have more to talk about after they're all done.

Nebraska's Dairy Program

HOARD'S DAIRYMAN:—Presidential candidates travel in special trains throughout the country, but out in Nebraska pure-bred dairy cattle are considered of even greater importance despite the fact that the vice-presidential candidates of the two leading parties are claimed by the state. This is no ordinary freight train to haul cattle from one place to another, but a real special with complete equipment and a special crew.

The idea of the train goes back to the time Nebraska was suffering from the post-war depression. Business was depressed because agriculture was not prosperous. Agricultural leaders sought ways and means of relief and also means of preventing further troubles of this kind. Chief among these was a plan for more diversified farming. This included greater interest in dairying or, as it is sometimes expressed, in milking cows. Nebraska farmers need a steady income week by week that will bring in a little cash to at least pay grocery bills and that will not be affected by dry weather, hot winds, hail, or hog cholera. The cream check furnishes that ready cash and nearly every farmer has a few cows which can be milked.

Business men took up the idea and the Omaha Chamber of Commerce became interested. Largely through the efforts of Mr. Carl Gray of the Union Pacific, Mr. Walter Head at that time president of the American Bankers' Association, and Frank Farrington of the John Deere Company, a state wide organization, called the Nebraska Dairy Development Society, was formed. Unlike many such plans, it was started with a five-year program and memberships of $10.00 per year were for the entire period. All kinds and conditions of people joined in this movement to build a better agriculture. The board of directors is truly a cosmopolitan group. There sit, side by side, the railroad president, the banker, the manufacturer, and the farmer all thinking for the best for agriculture.

Shortly the society started functioning with a well known and capable dairyman as manager. Its program was not extravagant. It proposed to encourage the keeping of a few good cows on Nebraska farms, to eliminate the unprofitable cows, and provide for breeding better ones. This last was vitally important since the average dairy cow in the state only produced about 100 lbs. of butterfat or but little more than enough to pay for her feed. Labor, housing, and all incidental expenses can not be charged to the average cow or she shows red figures on the ledger. The remedy might have been to buy better cows, but buying good dairy cows from Wisconsin farmers is costly. Buying means shipping, credit from the bank, etc. Breeding better cows at home by using good sires is more logical, more practical, and less expensive.

The idea was good, but to sell it to the 100,000 farmers of the state was much harder. Here the agricultural officials of the Chicago, Burlington, & Quincy Railroad offered their services and those of their railroad in demonstrating the idea to the state. The replacement of the scrub sire was the real purpose. Through the cooperation of the College of Agriculture, the Nebraska Dairy Development Society, the State Dairymen's Association, the state dairy breed associations, various public spirited companies, and breeders of 31 pure-bred dairy bulls, the plan became a reality. The C. B. & Q. Railroad offered the train fully equipped. Everything was donated. The breeders, public spiritedly presented the young pure-bred sires which conservatively are valued at $5,000.00. This was done in some instances at considerable sacrifice on the part of the young breeder whose income was none too large.

After the bulls were assured the next thing was to survey the state to select 31 stopping places. Perhaps forty towns were visited and conferences held with the local committees before the selections were made. Each town agreed to provide a certain amount of advertising of the event and to have no conflicting attraction. After the towns were chosen, then a careful survey in each community was made to determine who was to make the exchange of a scrub sire for a pure-bred one. The bringing of a good pure-bred sire into the different communities in exchange for scrubs which were to be sold to the packing houses would furnish a striking object lesson of the differences between good and poor stock. The recipient must agree to take proper care of the bull received and with the eyes of the community upon him he will hardly fail to keep his promise. In some cases, the boys' and girls' dairy calf club will receive the sire and in one county a blind man is to have the bull.

The train that carries these bulls is to run as a special for the three weeks of the trip, making two stops a day in most cases. A stock car for unruly scrubs, a feed car, two baggage cars fitted with compartments for the young sires, a good representative cow of the Ayrshire, Guernsey, Holstein, and Jersey breeds and "Miss Mystery" about whom little can be learned. Next in line will be two passenger coaches fitted up with exhibits and a radio broadcasting and receiving station, then a sleeping car, and a business car. Such is the make-up of the "Pure Bred Sire Special" that bids fair to make agricultural history in Nebraska.

Nebraska. H. P. DAVIS.



ABBEKERK ADIRONDAC DAIRY MAID

California's new champion Holstein cow for ten months' production as a senior three-year-old is Abbekerk Adirondac Dairy Maid, owned by the Bridgford Holstein Company. In 305 consecutive days she produced 22,389 pounds milk containing 743.71 pounds butterfat, equivalent to 929.6 pounds butter, according to the Advanced Registry Department of The Holstein-Friesian Association of America. In addition to her state honors this cow is also the second highest milk producer in the United States for her class, as well as the third highest in America for butterfat production. She is the daughter of Adirondac Wietske Dairy Maid, the only cow in the world to produce 1,000 pounds butterfat in three different yearly test periods.—Extension Service, Holstein-Friesian Association of America.

U. S. Movie Truck Wins Support for Tick Eradication

HOARD'S DAIRYMAN:—A better public understanding of tick eradication and the many benefits which will result from the more economical production and wider use of milk, are the "gospel" which a one-ton truck carrying a complete movie outfit is spreading through Florida. This outfit, which is operated by a representative of the Bureau of Animal Industry, United States Department of Agriculture, has presented 80 showings in schoolhouses, churches, and four out of-door audiences since January 1. The pictures used are all educational films produced by the Department and they are shown before audiences in the more outlying rural localities. Many attending the meetings had not previously seen motion pictures.

A unique situation regarding this method of preliminary tick-eradication work, according to John F. Fahey, who has charge of the outfit, is the enthusiasm of the audiences. Even those who appeared at first indifferent to the advantage of better live stock and dairying, have become greatly interested after seeing the pictures. A short talk is a supplementary feature.

Mr. Fahey has made a careful study of the tick and dairy situation in Florida, and estimates that the state is losing each year more than $5,000,000 worth of milk in feeding cattle ticks. This estimate is based on a 42 per cent reduction of milk flow due to the tick, and a short lactation period of only 200 milking days in the year. The estimated loss per cow is $60 annually, or more than $5,000,000 for the 97,000 dairy cows in the state. The meetings are held without charge nor are collections permitted. The audiences are made up in part by women and children who show particular interest in the food value of milk, which is one of the important reasons for eradicating cattle ticks. "Too many of us," Dr. Fahey states in his lectures, "think of bone and teeth as permanent structures, whereas they change in character from day to day and from year to year as do other sets of cells in the body. In addition to other constituents of milk the mineral salts contained are indispensable to sound teeth, which are in turn indispensable to good health, energy, and endurance.

The truck has toured Madison, Gadsden, Leon, and Jackson Counties, Florida, and early in May was working in Holmes County. The next counties to be visited are Washington, Bay, and Calhoun.

The principal motion picture used in connection with the outfit is "Mollie of Pine Grove Vat", a three-reel production.

This picture tells in story form how the people of a community where cattle were infested with the blood-sucking cattle ticks, got rid of these pests largely through a local public sentiment and the heroism of a young woman. S. R. WINTERS.

The Dairy Cattle Congress

(Continued from page 365)

the one owned by Marlow that did not have the scale or capacity of either of the others.

The two-year-olds were a close class pretty well down the line and the judge took some time to get them placed, with May Pietertje Homestead Ormsby first and a good Carnation Stock Farm entry second.

The aged cow was a popular senior and grand champion with Mudcura Farms' junior yearling, junior champion.

In most of the senior bull classes, the tops were outstanding and only in the senior championship lineup was there much difference of opinion. Hoesley's aged bull, North Star Joe Homestead, is a mighty good type of Holstein, but he doesn't have the top nor quite the dairy quality of Johanna Rag Apple Pabst, owned by J. E. Piek, and the latter went up as he has at several earlier fairs. He was also grand champion.

Among the juniors, the Minnesota Holstein Co. showed a very flashy junior yearling that most of the ringside favored, but the judge selected a calf from the Jefferson County herd because of a better head and neck and somewhat better stretch.

The awards follow:

Bull 4 yrs. or over—1, Baaltz Hoesley on North Star Joe Homestead; 2, So. Dak. State College on Sir Aaggie Colantha Korndyke; 3, Jefferson County Asylum on Maple Row Sarcastic Lad; 4, J. E. Mack on King Canary Oak De Kol Fobes. Bull 3 yrs. and under 4—1, J. E. Piek on Johanna Rag Apple Pabst; 2, Modern W. O. A. San. on Corwin Wimple D. K. Ormsby; 3, Mudcura Farm on Duke Pietertje Korndyke Ormsby 31st; 4, Brace & Sons on Dodge County Homestead Boy. Bull 2 yrs. and under 3—1, Hanson, Gilley, Knief on Forum Ormsby Perfection; 2, Iowana Farms on Tritomia Pietertje Ormsby Lad; 3, Taylor & Christgau on Duke Ormsby Piebe De Kol; 4, Carnation on Sandy Segis Walker Mat. Bull 18 mos., under 2 yrs.—1, Carnation on Harvest Jewel Matador; 2, Modern W. O. A. San. on Woodcraft Pontiac Champion Star, 3, H. Umlandt on Ormsby Mechthilde Lad; 4, Hanson, Sauerbry, McLawry on Tritomia Pietertje Ormsby Buckeye. Bull 1 yr., under 18 mos.—1, Minnesota Holstein Co. on Sir Inka May; 2, Jefferson Co. Asylum on King Mutual Fan; 3, Webster County Calf Club on Tritomia Veeman Ormsby; 4, Emil Funk on King Homestead Fobes Gewina. Bull calf under 1 yr., bred by exhibitor—1, Christ & Hackbarth on King Richmond Pontiac; 2, Brace & Sons on General Homestead Mercedes; 3, Modern W. O. A. San. on Woodcraft Segis De Kol Champion; 4, Carnation on Alfred George Matador.

Cow 5 yrs. or over—1, Modern W. O. A. San. on Zwingara Segis Clothilde; 2, Carnation on Hazelwood Heilo Ormsby Mercedes; 3, Mudcura on Aaggie Mechthilde Mudcura Girl; 4, Uni. Nebr. on Clothilde Topsy King. Cow 4 yrs., under 5—1, Marlow & Randall on Mankato Segis Ormsby Bess; 2, Fred Waldman on Dolly De Kol Tirania Fayne; 3, Carnation on Carnation Matador Addie Segis; 4, Fred Gurr on Blue Eye Lady Johanna. Cow 3 yrs., under 4—1, Jefferson Co. Asylum on Madam Artis Wayne Denver; 2, Minn. Holstein Co. on Maudline Ollie Homestead; 3, Marlow & Randall on Mankato O. K. L. Blanche; 4, Carnation on Lady Bracelet Matador. Heifer 2 yrs., under 3—1, 3 and 4, Minn. Holstein Co. on May Pietertje Homestead Ormsby, Star Segis Homestead and Miss Inka Segis; 2, Carnation on Carnation Matador Mercedes Selah. Heifer 18 mos., under 2 yrs.—1, Jefferson Co. Asylum on Johanna Wayne Rue 3d; 2 and 3, Carnation on Carnation Pauline Matador and Carnation Matador Adelina Segis; 4, Dorothy Hanson on Fannie Macduff Janzen. Heifer not in milk, 1 yr., under 18 mos.—1, Mudcura Farm on Oakwood Piebe Allie; 2, Carnation on Carnation Matador Aaggie Col.; 3, Bryant & Thompson on Jessie Pet Pontiac Homestead; 4, Iowana Farms on Iowana Homestead Segis. Heifer under 1 yr., bred by exhibitor—1, Jefferson Co. Asylum on Clothilde Marguerite Albina; 2, University of Nebraska on Ormsby La Vie of U. of Nebr.; 3, Marlow & Randall on Mankato Lassie Ormsby 2d; 4, Carnation Milk Farms on Carnation Matador Lulu Walker. Cow having official yearly record begun at 5 yrs. or over—1, University of Nebr. on Clothilde Topsy King; 2, Iowana Farms on Lady Johanna Aaggie Fayne; 3, Minnesota Holstein Co. on King Korndyke Pontiac Lass Arlene; 4, Marlow & Randall on Dakota Dutchland Alice Brookings 2d. Cow having official yearly record begun under the age of 5 yrs.—1, Mudcura Farm on Aaggie Mechthilde Mudcura Girl; 2, Marlow & Randall on Mankato Segis Ormsby Bess; 3, Union College; 4, Iowana Farms on Iowana Ona Homestead De Cola.

Exhibitor's herd—1, Jefferson Co. Asylum; 2, Carnation Milk Farms; 3, Mudcura Farm; 4, Minnesota Holstein Co. Breeder's young herd—1, Carnation Milk Farms; 2, Modern W. O. A. San.; 3, Minn. Holstein Co.; 4, Marlow & Randall. Breeder's calf herd—1, Marlow & Randall; 2, Carnation Milk Farms; 3, Brace & Sons; 4, Jefferson Co. Asylum. Get of sire—1 and 2, Minn. Holstein Co. on get of Piebe Laura Ollie Homestead King and Sir Inka Superior Segis; 3, Jefferson Co. Asylum on get of Dutchland Creamelle Denver Prince; 4, Carnation on get of Matador Segis Walker. Produce of cow—1, Minn. Holstein Co. on produce of May Walker Ollie Homestead; 2, Carnation on produce of Hazelwood Bracelet Mercedes; 3, Univ. of Nebr. on produce of Varsity Derby La Vinnie; 4, Marlow & Randall on produce of Mankato Lassie Ormsby. A. R. cow—1, Minn. Holstein Co. on May Walker Ollie Homestead; 2, Carnation on Tillamook Lola May De Kol; 3, Iowana Farms on Iowana De Cola Ollie. Dairy herd—1, Carnation; 2 and 3, Minn. Holstein Co.; 4, Mudcura Farms.

Senior and grand champion bull—Johanna Rag Apple Pabst. Junior champion bull—King Richmond Pontiac.

Senior and grand champion cow—Zwingara Segis Clothilde. Junior champion heifer—Oakwood Piebe Allie.

Jerseys

Judge: F. W. Barber, Tennessee.

Exhibitors: The Oaklands, Michigan; Pebble Hill Plantation, Georgia; Sam F. Crabbe, North Dakota; South Dakota State College; S. S. Carroll, Meredith Jersey Farm, Hallie Fletcher, Dwight Harvey, Merle Stroud, Donald Hansaker, Mary Way, Ethyl Fletcher, Harry Crouch, Duane Bingamon, Josephine Crouch, Dorothy Stroud, Havard Hedrick, Waterloo Jersey Farm, Gletty & Noltensmeier, Harry S. Stein, Campbell Jersey Farm, W. F. Parrott, Iowa.

There were only 125 Jerseys on the grounds this year and 15 of these were entrants at the calf club show, but if the number shown was less than 1923, the quality was not. The entries were very good and the tops in almost every class were exceptionally desirable.

When the aged bull class started the ball rolling in the morning it was necessary to call in L. V. Wilson of Minnesota to place E. T. Meredith's Fashionable Fern's Lad that was at one time owned by Longview Farms when Mr. Barber had charge of the Jerseys there. Mr. Wilson put him up and below him was the ten-year-old Financial Beauty's King, showing as good now as he did a half dozen years ago, a remarkably good bull in many ways.

The three-year-old bulls brought out another very good top in Adelina's Sultan, owned by the Pebble Hill Plantation of Georgia. As it turned out, the close contest for senior championship was between this one and the Meredith aged entry with no odds either way. The two bulls had met three times previously this season and twice the older bull won, going down for the first time at Springfield a week earlier. This time it was two all, and the Georgia bull took both senior and grand championships. Wilson placed him up on his stretch, length of rump, and smoothness at the tail head. The outstanding junior bull, an easy junior champion, was Noble's Financial Modeller owned by Sam F. Crabbe of North Dakota.

You seldom, if ever, see a poor ring of Jersey cows at a show like Waterloo. Even those pretty well down the line are usually close to the desired type. This year there were thirteen aged cows to make up one of the good rings of the entire show, and as they lined up, two from the Pebble Hill herd were outstanding. Fern's Oxford Anemone caught everyone's eye and when she stood ahead before the milk-out it seemed as though she was a good winner. She had the lines, the spring of rib, the depth, and an exceptionally well shaped udder with good teat placement. Next to her was Financial Simple Interest, longer but not so deep nor so well fitted, and with not quite so well balanced an udder.

After the milk-out, however, the first cow showed an udder as large and almost as heavy as before, due partly perhaps to her recent freshening, while the Financial cow's udder was quite the opposite and because of that Mr. Barber switched the two for his final placing. Brampton Morna Primrose, owned by The Oaklands, Michigan, a winner at several fairs this fall, was a good third.

Tops among the four-year-olds and three-year-olds placed easier with Imp. Indispensable's Juanita and Gilberta's Victoria, both stablemates of the aged winner, taking their respective blues.

The Pebble Hill winning streak was broken when it came to two-year-olds and Xenia's Bowlina from The Oaklands, Michigan, went up and a Meredith entry, Successful Golden Cowslip, was so close a second that many of the ringside were doubtful which way they would place.

The aged cow was senior and grand champion. Financial Super Marjorie, owned by the Waterloo Jersey Farm, a senior yearling showing in milk, was junior champion.

The awards follow:

Bull 4 yrs. or over—1 and 2, Meredith Jersey Farm on Fashionable Fern Lad and Financial Beauty King; 3, Waterloo Jersey Farm on Financial Superior. Bull 3 yrs., and under 4—1, Pebble Hill Plantation on Adelina's Sultan; 2, Waterloo Jersey Farm on Financial Master; 3, Meredith Jersey Farm on Financial Successful King; 4, Campbell Jersey Farm on You'll Do's Eminent Laddie. Bull 2 yrs. and under 3—1, The Oaklands on Blond's Xenia Sultan; 2, Meredith Jersey Farm on Successful Laddie; 3, H. S. Stein on Iowa's Jolly Prince; 4, Waterloo Jersey Farm on Financial King the Great. Bull 18 mos., under 2 yrs.—1, Waterloo Jersey Farm on Financial Beauty King Mark; 2, Sam F. Crabbe on Super Noble Jolly; 3, Harry S. Stein on Iowa's Jolly Lois; 4, Gletty & Noltensmeier on Morn King of J. C. F. Bull 1 yr., under 18 mos.—1, W. S. Dixon on Jap's Giltedge Chief; 2, Pebble Hill on Bright Volunteer; 3, S. S. Carroll on Financial Duke of J. C. F.; 4, Crabbe on Models Financial Fern. Bull calf under 1 yr., bred by exhibitor—1, Crabbe on Noble's Financial Modeller; 2, Meredith Jersey Farm on Successful Cowslip King; 3 and 4, Waterloo Jersey Farm on Financial May's Master and Financial Super Raleigh.

Cow 5 yrs. or over—1 and 2, Pebble Hill on Financial Simple Interest and Fern's Oxford Anemone; 3 and 4, The Oaklands on Brampton Morna Primrose and Sleeper's Maid. Cow 4 yrs., under 5—1, Pebble Hill on Imp. Indispensable's Juanita; 2, The Oaklands on Armine's Sultana; 3, Crabbe on Financial Fontaine Pansy; 4, Waterloo Jersey Farm on Financial Lalla Rookh. Cow 3 yrs., under 4—1, Pebble Hill on Gilberta's Victoria; 2, The Oaklands on Buttercup's Lily Sultana; 3, So. Dak. State College on Gipsy's Golden Fairy;

(Continued on page 372)



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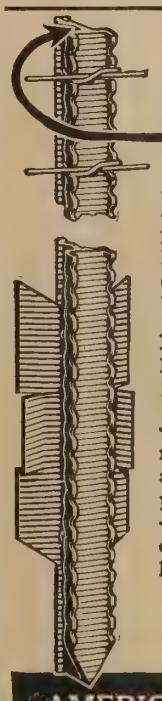
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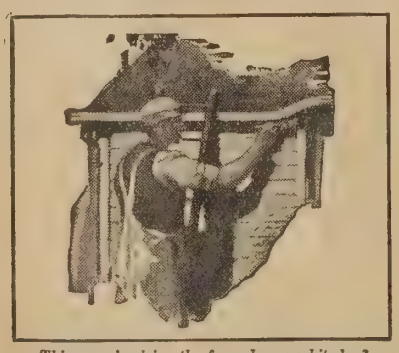
Lead goes out in every rainstorm

EVERY time you put on a rubber raincoat and overshoes you don some lead. When rain beats upon your shoulders and puddles of water lie in wait for your feet, lead helps to keep you dry.

More than 10,000,000 pairs of rubber boots, 68,000,000 pairs of rubber shoes and overshoes, and more than 20,000,000 pairs of canvas shoes with rubber soles are made annually.

In making your rubber footwear and clothing, the manufacturer uses from 5% to 15% of lead in some form.

Litharge, basic lead sulphate, and white-lead, all obtained from the metal, lead, are used in rubber to obtain a uniform cure and great toughness. Today more than 19,000,000 pounds of lead are used annually by the rubber industry in rubber goods such as rubber bath mats, rubber aprons, rubber jar rings, hot water bottles,



This man is giving the farm house white-lead protection against the attacks of the weather.

hard and soft rubber electric insulation, hard rubber combs and pipe stems.

Lead's most general use

No matter to what extent lead is used in the rubber industry, its most nearly universal use is as paint. On every hand you see houses covered with white-lead to protect them from rot and deterioration and eventual destruction. Nearly 350,000,000 pounds of white-lead are used in this country on wooden and non-metallic surfaces annually.

Whenever you see a house, barn or silo scarred and weather-beaten or actually crumbling away, you can assume that the owner has neglected to give his property adequate paint protection. Such property first loses its freshness and attractiveness. Then it decays. In both cases, its value in the real-estate market drops.

Save the surface with white-lead

Wise farmers are today cutting down property repair costs and protecting their investments by more careful adherence to the watchword, "Save the surface and you save all." They have learned from experience that it is more economical to save the surface with white-lead paint than to repair or rebuild property that has rotted beyond repair. White-lead paint is cheaper than wood.

What the painter prescribes

Ask the professional painter what gives the greatest protection to surfaces such as wood. He will tell you pure white-lead mixed with pure linseed oil for exterior painting and white-lead and flatting oil to give a beautiful finish to interior jobs.

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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Peterson Vs. McKnight

HOARD'S DAIRYMAN:—It was with no little pleasure that I read in your August 29 issue the able article from the trenchant pen of our friend, Mr. McKnight. He complained recently of not being a rhetorician, and look ye now how he lays about him! This is as it should be; when the steel rings true we admire the skillful thrust no less than the adroit parry. It is only unfortunate that Mr. McKnight and the writer could not have met long ago. What unalloyed pleasure might have been theirs, could they have carried on this discussion uninterruptedly for the past 30 years!

Mr. McKnight has a perfect right to think that "economic demand" is the demand made by humans on the raw materials of nature, although it might be furtively interjected that most writers on economics take the view that it is the commercial demand for things ready to use. The distinction is important. Demand is certainly greatly stimulated, if not in many cases almost wholly created by the display of goods. Thus the automobile industry which, next to bootlegging, is the greatest industry of our country, was not created by a universal demand for automobiles before these contraptions were invented; but when Henry Ford made his first gasoline driven buggy, after the first terror incident to its appearance had subsided, an increasing desire to get the "kick" out of a like adventure created the demand. Manufacturers have tried their best to do the rest.

No, Mr. McKnight's castle in Spain (or on the highlands of Centerville) would have no economic value, except as it made him a better producer by reason of his having a good home. Neither would it gain such value, no matter how many of his fellow citizens sought to flatter him by living in close proximity to him, unless it were put upon the market. (You do not speak of the rental value of Buckingham palace or of our own White House).

For the sake of charity of thought and lucidity of expression, it might be well to observe the ethics of debate and not try to make an opponent say something which he did not say, nor base an argument on a plain misinterpretation of what he did say. It will be noted, then, that I have not at any time said that there was not an increase in real estate values incident to a conflux of population. It is the unearned quality of the increase which I have denied and sought to disprove. As has been pointed out, capital must earn something or there would be no capital. If it is conceded that the seemingly phenomenal increase in value of building lots in Manhattan is in reality no greater than the amount at bank interest of the original investment, that surely does away with the whole unearned increment theory. We stress the untenableness of this premise of the single taxes because the premise is the basis of their whole philosophy. In storming the stronghold of an enemy it is but natural strategy to dynamite the foundation of his citadel.

Mr. McKnight says that the chain-stores base their offers of rent on the number of people, by actual count, who pass a given point within a given length of time. Very well; we will station the rent evaluator of the Great A. and Q. Coffee Grinders, Inc., on Market St., Philadelphia,—say at the point when the subway train comes out of the ground (like a woodchuck pops out of his hole to ascertain whether the danger from which he had fled was real or imaginery) and mounting skyward, becomes in turn an elevated train. The date is October 13. The Knights of Columbus have staged a parade, 20,000 strong, in honor of their patron saint and intrepid explorer's discovery of the Bahamas, 432 years ago. The parade passes our observation post with banners flying (like the regal Maize unfurls his luxuriant banner here at Maplewold). On the same day the Ku Klux Klan, whose white garb may not be wholly emblematic of that white robed multitude which St. John saw in the Apocalypse, parades down Market Street 30,000 strong. These march and countermarch until the green blends with the white and all make common cause against our common enemy, the lawless liquor traffic. In the afternoon of the same day the Epworth League, 3,000,000 strong, who also love their own church but love liberty of conscience even better and hate the tyranny of ecclesiastical rule, sends a delegation of 15,000 to march down Market Street. These are all there is to "mere presence" but if the rent-evaluator of the A. & Q. counts them all as potential patrons, I fear he will greatly miss the mark.

There is no such thing as permanence of residence. "We have here no continuing city." In the vernacular of the street, "We are here today and gone tomorrow." That is doubtless why landlords require advance payment of rent.

The soil of discussion has thus far been only summer fallowed. After proper tillage there will follow seed time and harvest.

New York A. N. PETERSON.

An Interested Reader

HOARD'S DAIRYMAN:—This is no attempt on my part to enter the "lists" or to side with any of the word bandiers of these columns. It is just a word in edgewise to let Timothy Viers, the New York Teat Puller, the semi-preaching Missourian, and the rest of the restless family know that they have a ready audience in one interested reader at least. Were we all to make known our convictions, there would be an appreciable jumble but as the inclination seems only to occur to a representative few, we other readers may well enjoy the amusing, though sometimes enlightening, verbal tilts.

Wisconsin. K. F. WHITSON.

Sheriff Kept Away by Black and Whites

HOARD'S DAIRYMAN:—It was strange how I first got to reading your dairy gospel and I am not much on writing long stories but if it is worth it to you, I could tell a very interesting short story about your good paper. This makes seven new members to the Hoard's family that I have sent in and I offered one man his money back if he wasn't satisfied in six months with the paper.

I have seventeen head of black and white cattle that I am as proud of as a little boy is of a new wagon.

We tried grain farming for over twenty years and I can say that the black and white cow is the thing that kept the sheriff from telling us when to move.

Nebraska. W. E. MARTIN.

Judging by Type and Production

HOARD'S DAIRYMAN:—The present system of judging dairy cattle is far from satisfactory. Beef cattle, horses, and hogs can be very accurately judged by comparison and nearness to the ideal type that every judge has in mind in placing a class of live stock. With dairy cattle it is a different proposition. Dairy cattle are bred for the milk and butterfat they produce, and this cannot be accurately determined by judging the conformation of a cow. The system of records of production of dairy cows, as now used in cow testing associations and in Advanced Registry work, is the only accurate method of judging the production value of a dairy animal. However, our whole show system is built upon type and it would be folly to disregard type altogether.

It would seem that a system of judging where both type and production were taken into consideration would be the logical method of judging dairy cattle. Outside of the Advanced Registry class at the National Dairy Show there has been little attention paid in the United States to judging both type and production as revealed in records. Denmark has for some time made allowance for production as well as type at her fairs.

A Type and Production Class for dairy cows was established for the first time in Minnesota, at the Freeborn County Fair at Albert Lea, Minn. A class was made for Jerseys, Guernseys, Holsteins, and grade Guernseys, and all ages competed. The difference in age of the cows was equalized by making an allowance for cows under five years according to age at which record was made. The following table was used which is the difference allowed by the different breed associations in computing the requirements for entry in the Advanced Registry:

Age	Guernsey	Holstein	Jersey	Milking Shorthorn
	%	%	%	%
2 yrs.	70	60	65	62
3 yrs.	80	75	75	76
4 yrs.	90	86	87	88
5 yrs.	100	100	100	100

In calculating the score on production, 1,000 lbs. of butterfat were used as 100 per cent. The score on type was placed by the judges in the usual manner, and the final score is the average of the type and production scores.

It is interesting to note that the Holstein cow, De Kol, received a score of 90 on type which placed her first in type score, while her production score of 59.8 brought her down to 6th place. In the open class this cow received first place. In the pure-bred Guernsey class the highest scoring cows on type were second and third while the cow winning in this class did so on her superior production.

The prizes for the Type and Production Class were $15, $12, and $8.

It is a little unfair to have cows that are milked four times a day, as is done in making Advanced Registry records, compete with cows that are milked but twice a day in cow testing associations. The difference in these two kinds of records is also in the conditions under which they are produced. It is impossible to get the cows exactly on an equal basis. If the two-time milking records were calculated as 60 per cent of the four-time milking records, it would place the cows on more nearly an equal basis according to their opportunity and ability of making records.

Axel Hanson judged the Holsteins; L. V. Wilson, the Guernseys; and Roy Cook, the Milking Shorthorns.

E. G. CORT.

Minnesota.

Placings in the Type and Production Classes at the Freeborn County Minnesota, Fair

	Record fat lbs.	Record fat Equalized lbs.	Production score	Type score	Ave. score	Final placing
Holsteins						
Beauty	591	788	78.8	74	76.4	5
Josephine	751	751	75.0	78	76.5	4
De Kol	359	598	59.8	90	74.9	6
Lucy	487	487	48.6	80	64.3	8
Beaver	431	574	57.4	84	70.9	7
Arlene	681	908	90.8	87	88.9	3
Miss Rue	861	1000	100.0	78	89.0	2
Inka	623	1039	103.9	85	94.4	1
Guernseys						
Valentine	562	800	80.0	82	81.0	1
Shirley	472	606	60.6	85	72.8	2
Anabel	336	508	50.8	72	61.4	4
Claris	384	427	42.6	85	63.8	3
Shorthorns						
Nellie	542	616	61.6	85	73.3	1
Amy	566	566	56.6	80	68.2	2
Lily	321	517	51.7	80	65.8	3

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Canadian Cream and Milk

More than double the quantity of fresh milk and cream was exported from Canada to the United States in the twelve months ending June 30, 1924, than for the same period last year. In the past twelve months 2,396,725 gallons of milk, valued at $472,930, were exported, compared with 1,140,073 gallons last year, valued at $244,715 according to the Canadian News Letter of August 8, 1924. There were 2,965,044 gallons of cream shipped to the United States for the twelve-month period ending June 30, 1924, valued at $4,873,226, as against 1,894,894 gallons, valued at $3,212,420 last year.

A very creditable record was made by Sayda's Violet Meridale when she produced 616.10 lbs. fat and 10,234 pounds milk in 305 days at six years of age. Milk averaged 6.04 per cent fat for the test. This very creditable performance wins for this Jersey a gold medal.

Mrs. Dora Moeller, Indiana, is the owner of Sayda's Violet Meridale.—The American Jersey Cattle Club.

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ROSENTHAL CORN HUSKER CO.
Box 20 Milwaukee, Wis.

The Dairy Cattle Congress

(Continued from page 369)

4, Meredith Jersey Farm on Raleigh's Golden Finance. Heifer 2 yrs., under 3—1, The Oaklands on Xenia's Bowlina; 2, Meredith Jersey Farm on Successful Golden Cowslip; 3, Pebble Hill on Castorline's Darling; 4, Waterloo Jersey Farm on Financial Superior's Viola. Heifer 18 mos., under 2 yrs.—1, Waterloo Jersey Farm on Financial Super Marjorie; 2, Meredith Jersey Farm on Financial Successful Queen; 3, Crabbe on Super Noble Hope; 4, The Oaklands on Les Prairies Double Viola. Heifer not in milk, 1 yr., under 18 mos.—1 and 4, The Oaklands on Fairy Boys' Nellie and Buttercup's Oxford Petal; 2, Meredith Jersey Farm on Financial War Bride; 3, Crabbe on Super Model Hazel. Heifer under 1 yr., bred by exhibitor—1, The Oaklands on Bright Bessy's Ditto; 2, Crabbe on Financial Indian Girl; 3 and 4, Meredith Jersey Farm on Successful Queen Ruena and Successful Fairy Noble. Cow having official yearly record begun at 5 yrs. or over—1, Waterloo Jersey Farm on Financial Noble Beauty. Cow having official yearly record begun under the age of 5 yrs.—1, Crabbe on Village Reminder Milkmaid; 2, Pebble Hill on Financial Simple Interest.

Exhibitor's herd—1, Peeble Hill; 2, The Oaklands; 3, Meredith Jersey Farm; 4, Waterloo Jersey Farm. Breeder's young herd—1, Meredith Jersey Farm; 2, Crabbe; 3, The Oaklands; 4, Waterloo Jersey Farm. Breeder's calf herd—1, Crabbe; 2, Meredith Jersey Farm; 3, The Oaklands; 4, Waterloo Jersey Farm. Get of sire—1, W. S. Dixon on get of Xenia Sultan; 2, The Oaklands on get of Oxford Sultan of Oaklands; 3, Waterloo Jersey Farm on get of Financial Superior; 4, Meredith Jersey Farm on get of Financial Beauty's King. Produce of cow—1 and 4, Meredith Jersey Farm on produce of Cowslip's Golden Iris and Fern's Financial Countess; 2, The Oaklands on produce of Brampton Prairie Bessy; 3, Crabbe on produce of Pansy's Victory. Dairy herd—1, Pebble Hill; 2, The Oaklands; 3, Meredith Jersey Farm; 4, Waterloo Jersey Farm. Advanced Registry bull—1, Waterloo Jersey Farm on Financial Beauty's King.

Senior and grand champion bull—Adelina's Sultan. Junior champion bull—Noble's Financial Modeller.

Senior and grand champion cow—Financial Simple Interest. Junior champion cow—Financial Super Marjorie.

Brown Swiss

Judge: J. B. Fitch, Kansas.

Exhibitors:—N. C. Schmid, Lila Schmid, Fred Reuter, Wisconsin; L. S. Marshall & Son, Michigan; E. J. Hieser, Howard Davis, A. E. Bower & Son, Illinois; F. P. Minette & Son, Joseph B. Segner, Geo. E. Segner, Minnesota; J. W. Hess, Indiana; The Hull Bros. Co., Ohio; Mooney & Larrabee, Albert Heskje, Alfred Alpers, Ivan Thelander, Leonard Thelander, Kenneth Thelander, Thelman Heskje, Earnest Alpers, Iowa.

Brown Swiss representation at the larger shows has increased remarkably during the past few years and nowhere have we seen a better show of the breed than at Waterloo this year. There were 125 entries representing herds from seven states and while they stood third in point of numbers among the breeds, it was interesting to note the number of men interested in other breeds who watched them judged and commented on their increasing midwest popularity.

Thirteen aged cows made a most interesting class and until the milk-out Judge Fitch hardly knew just where his top would be. He had Betty of Lake View first and Hull Bros.' Swiss Valley Girl 7th, second, but after they were milked, positions had to be reversed. Betty has better depth of body and perhaps a slight advantage in size and shape of udder, but she is not so well set at the pin bones and her udder does not possess the quality that is evident in that of the Hull entry.

Swiss Valley Girl 7th was later made senior and grand champion, her nearest senior rival being Minette's winning two-year-old, Believe's Darling of Far View. This winning by the Hull entry is remarkable because the cow is 15 years old and with the exception of two seasons she has been a consistent winner since she was a yearling. She has been grand champion at three National Dairy Shows and held similar placings at the state fairs very many times.

Junior championship went to a good senior yearling heifer, Tremont Neva K., owned by Howard Davis of Illinois.

The judge found his best senior bull in the three-year-old class which included three entries and which incidentally seemed to the ringside experts (?) to give him the most trouble. There was Prince of Meadow Green owned by Marshall & Son, Blackstone from the herd of Fred Reuter, and Edgard C. owned by A. E. Bower & Son. The first and last seemed much of the same type and cleaner cut dairy bulls with the Marshall entry cleaner in the thighs and better at the pins while the Bower bull was better in front and perhaps a little better balanced. Ringside opinion was pretty well divided on these two for first with the Wisconsin bull, a little thicker fleshed kind, for third. They finally placed with Prince of Meadow Green first and the Illinois bull last with Blackstone between them.

Marshall's bull was senior champion but was beaten for final honors by the junior champion, Ursula's Stasis, an outstanding senior yearling from the same herd.

Four state herds of Brown Swiss were out, Wisconsin, Illinois, Iowa, and Minnesota. They placed in the order named.

Bull 4 years or over—1, Mooney & Larrabee on Carl The 6th; 2, Hull Bros. Co. on Carl the 13th; 3, F. P. Minette & Son on Emmett of Lake View; 4, J. W. Hess on Shillings Reuben. Bull 3 years, under 4—1, L. S. Marshall & Son on Prince of Meadow Green; 2, Fred Reuter on Blackstone; 3, A. E. Bower & Son on Edgard C. Bull 2 years, under 3—1, Fred Reuter on Happy Boy of Gladmont; 2, Hull Bros. on Dale of Lake View; 3, A. E. Bower & Son on Elsie Nick A; 4, L. S. Marshall & Son on Buster Brown of Osseo. Bull 18 months, under 2 years—1, L. S. Marshall & Son on Ursula's Stasis; 2, Hull Bros. Co. on Lottie's Prince of Lake View; 3, A. E. Bower & Son on Bonick of Bowerhome; 4, J. W. Hess on Pixey. Bull 1 year, under 18 months—1, N. C. Schmid on Maiden's Vronicka's College Boy; 2, Mooney & Larrabee on Marie Carl; 3, F. P. Minette & Son on Believe's Grandson 3rd of Farm View; 4, Hull Bros. Co. on Beaut of Lake View. Bull calf under one year bred by exhibitor—1, Hull Bros. Co. on Bob of Lake View; 2, L. S. Marshall & Son on Styx Stasis 3rd; 3, Mooney & Larrabee on Jan; 4, Lila Schmid on Maiden's Master.

Cow 5 years or over—1, 3 and 4, Hull Bros. Co. on Swiss Valley Girl 7th, Swiss Valley Girl 10th, and Swiss Valley Girl 8th; 2, A. E. Bower & Son on Betty of Lake View. Cow 4 years, under 5—1, N. C. Schmid on Molly's Nellie; 2, F. P. Minette & Son on Betty of Far View; 3, L. S. Marshall & Son on Fairview Valley M; 4, Fred Reuter on Susie's Mollie. Cow 3 years, under 4—1, L. S. Marshall & Son on Styx 2d Beauty; 2, Hull Bros. Co. on Nellie F. Beaut; 3, Fred Reuter on Carl the 14th's Butternut May; 4, A. E. Bower & Son on Nickduchess of Bower Farms. Heifer 2 years, under 3—1, F. P. Minette & Son on Believe's Darling of Far View; 2, Hull Bros. Co. on Margaret of Lake View 4th; 3, A. E. Bower & Son on September Morn of Bowerhome; 4, N. C. Schmid on Brown Ethel. Heifer 18 months, under 2 years—1, Howard Davis on Tremont Neva K; 2, Mooney & Larrabee on Carl Beauty; 3, Fred Reuter on Carl's Pride; 4, N. C. Schmid on Marvel M's 2d Hazel. Heifer not in milk, 1 year, under 18 months—1, N. C. Schmid on Mernervie of Meadow Green; 2 and 4—Hull Bros. Co. on Militor Emma of Lake View and Miss Edna of Lake View; 3, A. E. Bower & Son on Betty H of Bowerhome. Heifer under 1 year, bred by exhibitor—1, N. C. Schmid on Meadow Green Sadie; 2, Mooney & Larrabee on Schonnette; 3, Fred Reuter on Carl's Lassie; 4, Lila Schmid on Browney A's Last. Cow having official yearly record begun at 5 years or over—1, Hull Bros. Co. on Swiss Valley Girl 10th; 2, F. P. Minette & Son on Believe. Cow having official yearly record begun under the age of 5 years—1, A. E. Bower & Son on Betty of Lake View; 2, F. P. Minette & Son on Dorothy Believe of Far View.

Exhibitor's herd—1, Hull Bros. Co.; 2, L. S. Marshall & Son; 3, A. E. Bower & Son; 4, Fred Reuter. Breeder's Young Herd—1, N. C. Schmid; 2, Mooney & Larrabee; 3, The Hull Bros.; 4, Marshall & Son. Breeder's Calf Herd—1, N. C. Schmid; 2, Mooney & Larrabee; 3, Marshall & Son; 4, Hull Bros. Co. Get of sire—1, Hull Bros. Co. on get of one Sire Reuben; 2, Marshall & Son on get of Stasis Boy of Sedgley; 3, Mooney & Larrabee; 4, N. C. Schmid. Produce of cow—1, Hull Bros. Co. on produce of Swiss Valley Girl; 2, F. P. Minette & Son on produce of Calhoun Maiden; 3, J. W. Hess on produce of Valley Girl 2d; 4, Marshall & Son on produce of Styx. A. R. cow—1, F. P. Minette on Believe; 2 and 4, N. C. Schmid on Cinnamon's Maiden and Molly's Nellie; 3, Hull Bros. Co. on Nellie F. Beaut. Dairy herd—1, Hull Bros. Co.; 2, L. S. Marshall & Son; 3, A. E. Bower & Son; 4, N. C. Schmid.

Senior champion bull—Prince of Meadow Green. Junior and grand champion bull—Ursula's Stasis.

Senior and grand champion cow—Swiss Valley Girl 7th. Junior champion heifer—Tremont Neva K.

Ayrshires

Judge: Professor H. H. Kildee, Iowa.

Exhibitors: Ayrcroft Farms, Adam Seitz and Sons, Wisconsin; F. H. Baskins, J. J. Lynes and Sons, and Matt L. Frost and Son, Iowa.

The Ayrshire show this year was not as good as that of a year ago. The winners were well up to the Cattle Congress standard but there should have been a better representation there. As it was there were but 77 head from two states where a year ago there were 112 head from 4 states.

Seitz and Ayrcroft took all the blues, eighteen out of twenty-one going to the former as did all championships.

Cavalier's Ping Pong, showing in the best form we have ever seen him, was outstanding among the bulls and a very good grand champion. For a five-year-old bull he has a remarkable show record. Shown first as a junior calf he has been defeated but once in his class, has won 27 firsts and 31 championships, 15 of them grand championships. Further, the bull shows every indication of going on and should prove a serious contender at any show for some time.

S. F. Helen R., Seitz's aged cow, showed exceptionally good. She has the scale, length, depth, and udder to make her hard to beat at the National unless the competition is very unusual. She was of course senior and grand champion female.

The heifer calf, Cavalier's Lady Perfection, from the same herd, was junior champion with Simmons' Ayrcroft Show Lillie runner up.

The awards follow:

Bull 4 years or over—1, Adam Seitz & Sons on Cavalier's Ping Pong; 2, Ayrcroft Farm on Cavalier The Last; 3, F. H. Baskins on Netherhall Rising Star. Bull 3 years, under 4—1, Ayrcroft Farm on Ayrcroft Cavalier Goldfinder. Bull 2 years, under 3—1, Seitz & Sons on Cavalier Sherry Redman; 2, F. H. Baskins on Cavalier Freetrader. Bull 18 months, under 2 years—1, Seitz & Sons on Cavalier Lord Messalliance; 2, J. J. Lynes & Sons on Lynes' Choice of Penhurst; 3, F. H. Baskins on Cavalier Morning Star. Bull 1 year, under 18 months—1, Ayrcroft Farm on Ayrcroft Cavalier Lord; 2 and 3, Seitz & Sons on Cavalier Golden Pippin and Cavalier King Jam Jar. Bull calf under 1 year, bred by exhibitor—1, 3 and 4, Seitz & Sons on S. C. Fashion Plate, Cavalier Little Boy Blue and Cavalier Field General; 2, Ayrcroft Farms on Ayrcroft Cavalier Gay Boy.

Cow 5 years or over—1 and 3, Seitz & Sons on S. F. Helen R. and Lucindy of S. C. 4th; 2 and 4, Ayrcroft Farm on Willowmoor Elsie

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OAKLAND

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Ruth and Alta Croft 4th of S. C. Cow 4 years, under 5—1, Seitz & Sons on Cavalier Luxury; 2, Matt L. Frost & Son on Rose Bud Nellie Carlton; 3, J. J. Lynes & Sons on Effie's Alberta; 4, Ayrcroft Farms on Ayrcroft Nancy. Cow 3 years, under 4—1, 2, 3, and 4, Seitz & Sons on Cavalier Kathleen, Cavalier Lizzie Lindsay, Cavalier Creampot 3d, and Barclay's Lady Beauty. Heifer 2 years, under 3—1, 2, and 3, Seitz & Sons on Cavalier Stuart Queen, Cavalier Sunflower Again, and Cavalier Messalliance 2nd; 4, Ayrcroft Farms on Ayrcroft Miss Kirsty H. Heifer 18 months, under 2 years—1, Ayrcroft Farms on Ayrcroft Snow Lillie; 2, 3, and 4—Seitz & Sons on Cavalier Silver Actress 2nd, Cavalier Queen of Hearts, and Cavalier Queen of Diamonds. Heifer not in milk, 1 year, under 18 months—1, 2, and 3, Seitz & Sons on Cavalier Darling, Cavalier Gem and Cavalier Lady Maud; 4, Ayrcroft Farms on Ayrcroft Roma Nancy. Heifer under 1 year, bred by exhibitor—1, 3, and 4—Seitz & Sons on Cavalier Lady Perfection, Cavalier Lizzie Lindsay, and S. C. Miss Judy; 2, Ayrcroft Farms on Ayrcroft Speckled Nancy. Cow having official yearly record begun at 5 years or over—1, Seitz & Sons on Lucindy 4th of S. C.

Exhibitor's herd—1 and 2, Seitz & Sons; 3 and 4, Ayrcroft Farms. Breeder's young herd—1 and 3, Seitz & Sons; 2, Ayrcroft Farms; 4, F. H. Baskins. Breeder's calf herd—1 and 3, Seitz & Sons; 2, Ayrcroft Farms; 4, F. H. Baskins. Get of sire—1, 2, and 4, Seitz & Sons on get of Cavaliers' Lord of Roseberry, Howie's King of Hearts and Cavalier Cupbearer; 3, Ayrcroft Farms on get of Cavalier The Last. Produce of cow—1, 2, 3, and 4, Seitz & Sons on produce of Bargenoch Queen, Blackbyres Lady Walker, Sir Hugh's Daughter and Barg Lizzie Lindsay. A. R. cow—1, Ayrcroft Farm on Ayrcroft Nancy. Dairy herd—1, Seitz & Sons; 2, Arcroft Farms.

Senior and grand champion bull—Cavalier's Ping Pong. Junior champion bull—S. C. Fashion Plate.

Senior and grand champion cow—S. F. Helen R. Junior champion heifer—Cavalier Lady Perfection.

Guernseys

Judge: L. V. Wilson, Minnesota.

Exhibitors: L. P. Martiny, William Larsen Canning Co., Goodhand Kingston & Son, F. E. Fox, Ed. T. Williams, Geo. McKerrow & Sons Co., C. J. & W. A. Connell, J. M. Harvey, F. J. Reuping, Wisconsin; C. E. Swenson & Sons, Simon Kruse, Minnesota; Joseph Golinvaux, Mountain Bros., W. W. Marsh, Helen Lee, Robert Lee, Christian C. Hansen, Leona Hansen, Ottmar Weber, Justin R. Lund, Herbert Rowland, Elmer W. Stevenson, Marple Mountain, Iowa; E. S. Person, North Dakota.

Last year the Guernseys made the poorest show at Waterloo of any of the breeds; this year it was one of the best, with plenty of classes that were close. The bull classes were not so well filled as were those of females and in almost every one the top was outstanding. Corium Princess Carrie's Champion, F. J. Reuping's four-year-old, was easily the best of the senior bulls and a good grand champion, but when it came to the juniors it was not so easily placed. The judge put up Corium Cherub's Edgar, a junior yearling also owned by Reuping.

The 12 aged cows made a hard class to decide on. Honey Bloom of the Prairie, owned by Marsh, was a good and easy top but the next three places were close enough to permit of plenty of differences of opinion. They finally lined up with Marsh Marigold of the Prairie, a more refined but typy cow second, May Rose Clara of Minot, a heavier framed cow of a little different type and with not too good a rump, third, and Diamond of Maple Hill, second at the 1923 National, fourth. The latter has more length and is enough better behind so that many thought she might well have gone one or two places farther up.

Another hard one to decide was first and second places among the three-year-olds. Floridale Merry Maid and Peach Blossom of the Prairie, the first from Corium Farm and the second owned by Marsh, were outstanding, but it seemed to us that the latter with better depth, top, and an exceptionally well shaped udder could well go up. The judge, however, found them close enough so that better handling quality and a little better quality of udder decided him in favor of the Wisconsin entry.

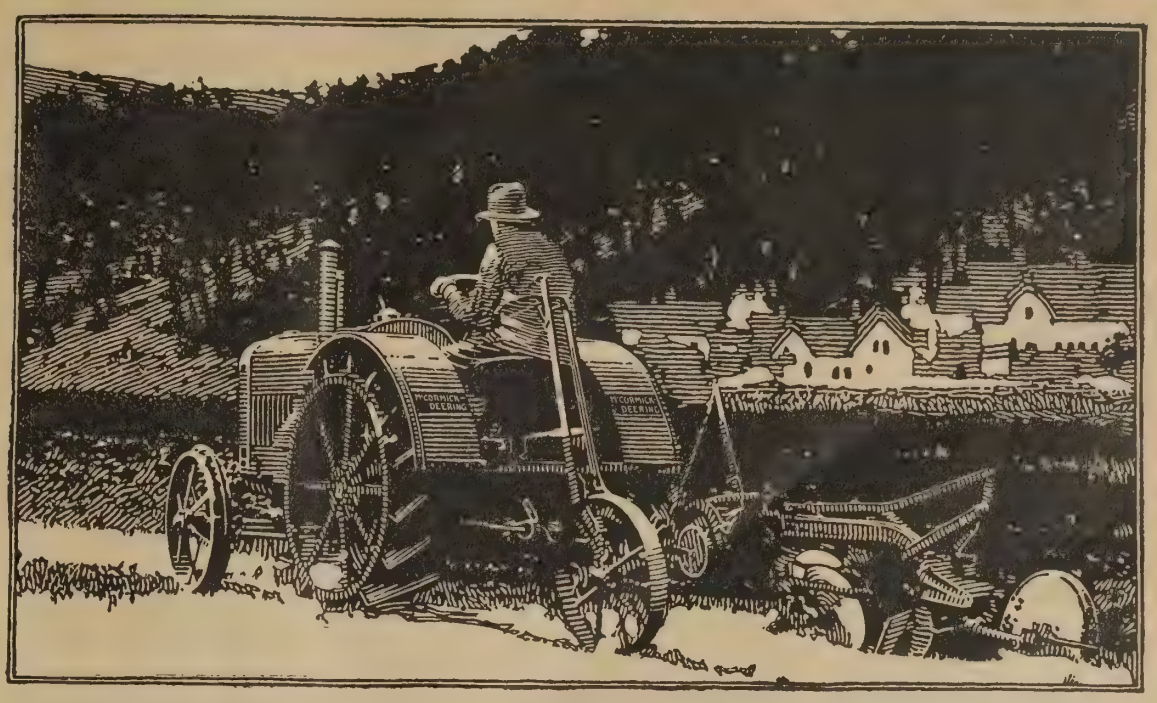
Honey Bloom of the Prairie was senior and grand champion female and among the juniors, Danny's Maid of Fern Dell, a calf from the Larsen Canning Co. herd, undefeated in class this year, was the best.

The get of sire class was very interesting not only because the top get, four females in milk, was so good, but also because the top 5 places went to groups of "Cherub" breeding, representing four herds in Wisconsin and Iowa. The winners, which were Marsh entries, made as good a get of sire group as we have seen in a very long time.

Bull 4 years or over—1, C. E. Swenson & Sons on Floridale General Washington; 2, Joseph Golinvaux, on Memento of Highland Place; 3, E. S. Person on Queen's May Secret of Minot; Ed. T. Williams on Proud Prince of Edgemoor. Bull 3 years and under 4—1, F. J. Reuping on Corium Princess Carrie's Champion; 2, L. P. Martiny on Proud Prince of the Prairie; 3, Wm. Larsen Canning Co. on Golden Heir of Fern-Dell; 4, W. W. Marsh on Gold Star of the Prairie. Bull 2 years and under 3—1, Mountain Bros. on Kitchener's Cavalier of Iowanola; 2, Person on Imogene's Prince of Iowanola; 3, C. J. & W. A. Connel on Defender of Waddington; 4, Reuping on Corium Rose des Houards Superb. Bull 18 months, under 2 years—1, Wm. Larsen Canning Co. on Rose's Boy of Fern-Dell; 2, Mountain Bros. on Beey's Master of Iowanola; 3, Marsh on Cherub's Sunkist of the Prairie; 4, Person on Luetta's Emigrant of Minot. Bull 1 year, under 18 months—1, Reuping on Corium Cherub's Edgar; 2, Marsh on Cherub's Prospect Sunkist of the Prairie; 3, Mountain Bros. on Dorothy Marie's Challenger of Iowanola; 4, L. P. Martiny of Proud King of Chippewa. Bull calf under 1 year, bred by exhibitor—1, Marsh on Gay Lad Sunkist of the Prairie; 2, Reuping on Corium Ladock Prince's Forest; 3 and 4, Mountain Bros. on Lady Challenger of Iowanola and Challenger's Regent of Iowanola.

Cow 5 years or over—1, 2, and 4, Marsh on Honey Bloom of the Prairie, Marsh Marigold of the Prairie and Diamond of Maple Hill; 3, Person on May Rose Clara of Minot. Cow 4 years, under 5—1, Marsh on Honey Dew of the Prairie; 2, Person on May Rose Glory of Minot; 3, Reuping on Easter Lily of

(Continued on page 385)



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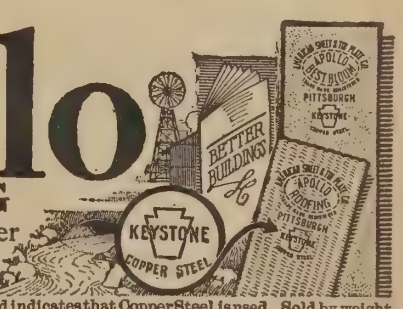
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LUCY THOMPSON

Your New Hat

A fine time to buy a hat is a month or so after all the rest of the women have bought theirs.

I may be mistaken but it seems to me that ten or fifteen years ago hats went out of style a lot faster than they do now and furthermore that we simply had to change hats when the season changed. We don't have to do this any more as felt hats—especially the plain sports type—are now worn the year around.

These hats began coming into the milliners' shops this year in May and especially in the lighter colors were worn through the hottest days of July, though goodness knows they are are not comfortable when the weather is warm. However, if we must be uncomfortable it is a great deal easier to be uncomfortable and in style than to be uncomfortable and out of style.

A friend of mine has a black taffeta hat—one of the small, close-fitting variety—that she has been wearing for a year and a half, both summer and winter and it always looks appropriate. She also has a straw hat for summer and a velvet for winter but this taffeta hat is a little dressier and fits in well and provides a pleasant change for her and her friends who always feel that she is well dressed because she doesn't have to wear the same hat all the time.

It doesn't cost a bit more to have two or three hats than to have one if you are foresighted about getting them and then take good care of them. Only the very well-to-do should buy hats that are extreme in shape, color, or size as these are the kind that we tire of soonest and most quickly want to replace.

Don't let a glib-tongue sales woman cajole you into buying a hat you don't want. We are all a little afraid of a smart, up-to-date looking clerk and lots of times we buy a thing because, having looked at several, we are ashamed to say that nothing suits.

I find it a good plan with a certain type of clerk to state what I want and what I can pay and I am training myself not to take a clerk's time unnecessarily but also not to buy unless I am suited. A poor purchase never brings any pleasure and is often sheer waste.

In the larger stores hats are always reduced as soon as the peak of the season is over. I was visiting in a large city once and on July 5 got a handsome sailor hat for four dollars and ninety-five cents that had been ten dollars on July 3. The clerk said that the Fourth always marked what they called the end of the season on sailors.

The hat, by the way, was white. I wore it that way for two summers, painted it green for one, and made it black for two summers more. I almost wept when the brim broke and I finally had to throw it away for with all the changes I put upon it, it always kept its shape and looked well.

This fall most of the newest hats have a high, flat-topped crown and narrow brim—sort of stove pipe effect. This comes nearest to being what is called "the style" of any one type, though plenty of others are shown so that you can get other kinds if this happens to look freakish on you. There is nothing smarter looking than this shape if it happens to be just your style but oh, woe, if it isn't!

Feather trimming is in good style though it is especially suitable to the older women. For the young nothing is better than the tailored, flat ribbon bows either plain or with a buckle in the middle.

You can easily make most of these trimmings and at a great saving. The only trouble is to know how. Just take a little time and courage when you are in town next time, examine something you admire, buy the materials and then go home and make it before the idea has time to get cold.

Some of the big pattern companies are helping us now by having hat patterns which are extremely practical. I would not advise your trying to make the frame, however. It sounds easy but I have found out that it is tricky business and anyway you can get them at the ten-cent store.

Can You Help?

I had a letter lately from one of our readers saying, "I wish I knew some way to make money. My children are growing up and there are so many things I want for them; things they really ought to have aside from just food and clothing.

"I think that one of my little girls has some musical ability but we have nothing for her to play on even if we had the money for lessons.

"Of course I am as busy as I can be all the time but I believe I could find a little extra time this winter if I only knew what to try that would make some money. Can you help me?"

If the truth were known, that letter might easily have come from any one of thousands of our readers. There are many things we all want and so few of us who have the money to get them. It is right for us to want things, too. I get mad every time I hear anyone saying, "Oh, she is always wanting something", as if it were a fault.

Whenever we women stop wanting things it is because our spirit is breaking down. Don't stop; keep on, being sure all the time that the thing you want is worth while. To be worth while it doesn't have to be fine-sounding. It is worth while to wish for nothing more than plenty of hair nets to keep your hair neater and prettier or for a yard or two of good lace to go in the neck of your dress.

An old lady said to me lately, "I guess I was just naturally born with a big wishbone. Seems as if I was always wanting something but we were always poor with our seven children and my husband no hand at making money. I heard that old saying once about some people being all wishbone and no backbone but I never was that way. I always did the best I could and kept on believing that things would come and now look at me what I've got.

"Couldn't anyone want more and besides I get a fine trip every year. Of course," she added with a twinkle, "I had to wait till I was 70 before it came but then some folks just let down and quit trying and wishing and then they never get anything, so I guess I'm pretty lucky."

Now this is what it's all about. If any of you have found ways of making money that are practicable and that the average farm woman can use, won't you write and tell me about them? I think we could have a great time swapping experiences and helping each other out. It takes time to write it down, but squeeze it in by hook or crook and maybe some day we can return the help.

Swiss Steak

One of the pleasantest memories I have of school days is the smell of something good cooking when I came home, raging hungry. Schools have started by this time and there is something almost impossible to satisfy about the late fall appetites. They are worse than those of winter, if possible.

One of the hearty meals that we like for this time of year is Swiss steak. It almost makes a meal in itself though some mashed potatoes go awfully well with it.

For this take two pounds, say, of round steak, lay it on the table after wiping it with a damp cloth and into it pound as much flour as you reasonably can. Some people use the edge of a plate for this pounding but I find the potato masher much more satisfactory. Have several spoonfuls of fat smoking hot in the frying pan and brown the meat on both sides.

From this point on you can use your own imagination and make all the changes you want to but what we like is to cover the top with a mixture of tomatoes, onions, green peppers, and seasoning. Then we pour on about a cupful of hot water and set it all to simmer either in the oven or on top of the stove. It takes about two hours for it to get well done and it must be closely covered in order to keep in the steam. Otherwise the water will evaporate and it will burn.

It is nicest to have the steak cut quite thick. You can use this method of cooking on other less expensive cuts just as satisfactorily. Flank steak is delicious if you give it enough time in the cooking.

Green Tomato Relish

Last fall we had an unexpected early freeze one night and next morning when I went to the garden I found my nice green tomatoes like balls of ice. We picked them then and there and I made them up into a pickle that, well, we liked it so well that it was gone before Thanksgiving in spite of the amount I made.

I just ground the tomatoes and an equal amount of onions through the food chopper; of course you could easily use fewer onions and have nearly the same flavor. Salt the mixture and let stand overnight. In the morning drain well and add vinegar with just enough sugar to take the sharp taste off. Heat this mixture for 15 minutes after it has come to

(Continued on page 379)

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2184—Dress for the Stout Woman. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3¾ yards 40-inch material with ⅜ yard 36-inch contrasting.

No. 2194—Smart One-Piece Dress. Cut in sizes 16 years, 36, 38, 40, 42, 44, 46, and 48 inches bust measure. Size 36 requires 3⅝ yards 40-inch material with 11¼ yards of braid.

No. 1678—Bloomer Dress. Cut in sizes 2, 4, 6, 8, and 10 years. Size 8 requires 3½ yards of 36-inch material.

No. 2176—Practical Apron. Cut in one size and requires 1¾ yards 36-inch material with 5¾ yards of binding. Hot-iron transfer pattern No. 700, blue only, costs 15c extra.

No. 1876—Slip for the Young Miss. Cut in sizes 4, 6, 8, 10, 12, and 14 years. Size 8 requires 1¾ yards 36-inch material.

No. 1875—Dress for the Growing Girl. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2¾ yards 36-inch material.

No. 1211—Boys' Coat. Cut in sizes 2, 4, 6, 8, 10, 12, and 4 years. Size 8 requires 1⅞ yards 44-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Aunt Ada's Axioms: Life is a hard school; and hearts may be broken in old age if selfishness is not curbed in childhood.

Hanging up a broom prolongs its life but if you don't want to bother with a hook, stand it on its handle.



On the floor is shown Gold-Seal Congoleum Rug No. 516. The 6 x 9-foot size costs only $9.00.

Six new and beautiful Congoleum Rug designs—

Gold-Seal Congoleum Rugs have always been renowned for the beauty and richness of their designs. And now—six new patterns, expressing the latest trend in floor-covering artistry, are ready for your inspection.

Especially interesting are the two new Chippendale designs, shown first and fourth at the right, which reflect the latest vogue in the most expensive floor-coverings. The small all-over floral motifs, illustrated third and sixth, come in soft tones that make them admirably suited for quiet, inviting guest rooms. A fascinating antique Oriental rug now exhibited in the British Museum inspired the second and fifth designs.

Patterns for Every Room

Don't fail to see these new designs at your dealer's. He has in addition other beautiful Congoleum Art-Rug patterns for you to see in a variety of color combinations that are in perfect taste for any room.

Seamless throughout and absolutely waterproof, these rugs need only a light mopping to make them spotless. They require no fastening yet always cling tight to the floor.

All their artistic and practical qualities make Gold Seal Congoleum Art-Rugs the favorite floor-covering in thousands of homes.

Popular Sizes—Low Prices

6 x 9	ft.	$ 9.00	1½ x 3	ft.	$ .60
7½ x 9	ft.	11.25	3 x 3	ft.	1.40
9 x 9	ft.	13.50	3 x 4½	ft.	1.95
9 x 10½	ft.	15.75	3 x 6	ft.	2.50
9 x 12	ft.	18.00			

The patterns illustrated are made in the five large sizes only. The smaller rugs are made in patterns to harmonize with them.

Owing to freight rates, prices in the South and west of the Mississippi are higher than those quoted.

Beware of Substitutes

Don't be misled into buying some other material represented as *Gold-Seal* Congoleum. Insist that the Gold Seal appear on the face of the goods you buy. It is the only way by which you can be sure of getting the genuine, guaranteed, nationally advertised *Gold-Seal* Congoleum.

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Philadelphia New York Boston Chicago Kansas City San Francisco
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Gold Seal CONGOLEUM *Art-Rugs*

GOLD SEAL CONGOLEUM GUARANTEE
SATISFACTION GUARANTEED OR YOUR MONEY BACK
REMOVE SEAL WITH DAMP CLOTH
COPYRIGHT 1917 AND 1920 CONGOLEUM COMPANY, INC.

"Beautify Your Home with Gold-Seal Congoleum Rugs," an interesting booklet showing all the beautiful patterns in their actual rich colors, will be sent to you free on request.



Pattern No. 554

Pattern No. 558

Pattern No. 546

Pattern No. 552

Pattern No. 556

Pattern No. 544

for ROOFS



test it!

—prove the quality of Vulcanite Roofing for yourself

You can be certain that Beaver Vulcanite Roofing will more than stand the tests of cold, heat, wind, rain, ice, snow, fire hazards —or any other natural strain a roof must endure. You don't need to take *anybody's* word for it. You can—and should—prove it for yourself before you spend a cent for any roof.

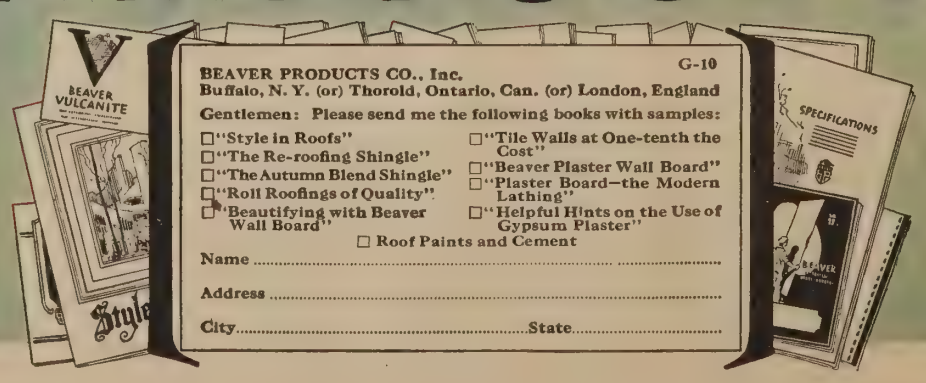
Write for a sample—test and compare

Let us send you a sample of Slate-Surfaced Beaver Vulcanite. Then give it these daring tests: Twist it. Bend it. Throw it on the floor. Jump on it. Kick it. Scuff it. Lay it on ice. Then pour hot water on it. Leave it on a hot radiator. Lay burning embers on it. Take it with you when you buy. Make every comparison you can. Judge for yourself whether Beaver Vulcanite is the most serviceable and the most economical roofing you can buy.

Your dealer can supply you

Any reputable dealer can supply you with this better-looking, husky, fire-safe roofing for any type of roof or building—rolls, slabs, shingles in various colors or blended shades. Don't forget the tests you've made. Depend on your own judgment. You're the one who saves if you insist on Vulcanite—the one who loses if you don't. Mail the coupon now, for your sample of Beaver Vulcanite.

BEAVER Vulcanite Roofing PRODUCTS



BEAVER PRODUCTS CO., Inc. G-10
Buffalo, N. Y. (or) Thorold, Ontario, Can. (or) London, England

Gentlemen: Please send me the following books with samples:

- ☐ "Style in Roofs"
- ☐ "The Re-roofing Shingle"
- ☐ "The Autumn Blend Shingle"
- ☐ "Roll Roofings of Quality"
- ☐ "Beautifying with Beaver Wall Board"
- ☐ "Tile Walls at One-tenth the Cost"
- ☐ "Beaver Plaster Wall Board"
- ☐ "Plaster Board—the Modern Lathing"
- ☐ "Helpful Hints on the Use of Gypsum Plaster"
- ☐ Roof Paints and Cement

Name .....

Address .....

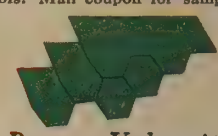
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Made of pure rag felt thoroughly saturated with asphalt — heavy, tough. Furnished plain or slate-surfaced in green, red, blue-black or patterned. Can be laid over old roofs. Mail coupon for samples.



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for WALLS *use*



Beaver Fibre Wall Board

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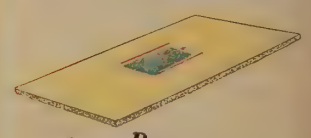
Beaver Tile Board

Gives you glistening white tile walls for kitchen or bathroom at one-tenth the usual cost. Mail coupon for sample.



Beaver American Plasters

Look for the Red-Striped Beaver Bag when buying plaster. It is your guarantee of highest quality. Write for Beaver plaster literature.



Beaver Plaster Wall Board

A better plaster wall board. Takes finer decoration. Approved by National Fire Underwriters' Laboratories. Mail coupon for sample and compare the quality.

Why drive a shabby car ?



A new car for $2.30!

"So little trouble to apply that it's a joy to use it!" This is the verdict of Mrs. Miller* after refinishing her Ford with Valspar-Enamel.

"I used less than a quart of black Valspar-Enamel to do the whole body, fenders and top. And it looks fine!"

Any careful man or woman can apply Valspar-Enamel—it flows freely from the brush and spreads evenly. And it costs only a trifle when you do the job yourself.

There are lots of other things and places around the house and barn that would look better for a coat of Valspar-Enamel. Household furniture, woodwork, garden implements, tractors—in fact, all wood and metal surfaces, indoors and out—are protected against the weather, rust and accidents by a coat of waterproof Valspar-Enamel. Made of Valspar Varnish plus finely ground colors, Valspar-Enamels are extremely durable. Rain, mud, gasoline, alkali — none of them dim the brilliant lustre of Valspar-Enamels or cause them to check or crack.

In 12 beautiful standard colors—Red, *light and deep;* Blue, *light, medium and deep;* Green, *medium and deep;* Ivory; Bright Yellow; Vermilion; Gray and Brown. Also White, Black, Gold, Bronze, Aluminum and Flat Black.

Send in the coupon below for samples.

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The famous Valspar boiling water test

Postscript

If you do not care to refinish the car yourself go to an automobile painter for a professional job. In a few days and at a reasonable price he will refinish your car with Valentine's Automobile Varnishes and return it as bright and new as the day you bought it.

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This Coupon is worth 20 to 60 Cents

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I enclose dealer's name and stamps—20c apiece for each 40c sample can checked at right. (Only one sample each of Clear Valspar, Varnish-Stain and Enamel supplied per person at this special price.)

Valspar Instruction Booklet with Color Charts, 15c extra.

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S. F. P. 10-24



—and Baking Powder does the rest

After you have combined the necessary ingredients—shaped the biscuits—placed them in the pan—then it's up to the leavener. Remember, it can either make or ruin your baking.

The majority of America's housewives know this—they've learned it through actual tests on bake day. That's why they use

CALUMET

THE WORLD'S GREATEST BAKING POWDER



Profit by the experience of others and use the leavener that has given unfailing and economical satisfaction for thirty-five years.

Bakings made with Calumet are uniform, sweet and wholesome. Use it for your children's sake because perfectly raised bakings are easily digested—and that means health.

There is no Substitute for Calumet

EVERY INGREDIENT USED OFFICIALLY APPROVED BY U. S. FOOD AUTHORITIES



SALES 2½ TIMES THOSE OF ANY OTHER BRAND

the simmering point and then either seal it up or put it in glasses and cover with paraffin.

What I like best about this pickle —next to the taste—is that it takes no fancy ingredients and is so easy to make. A couple of stalks of celery ground in with the other things is nice and you may like to put in whole mustard seeds, too, but they are not needed for a good pickle.

Sterilizing a Needle

There are so many times when a mother needs to use a needle to get out the splinters. It is really not safe to take up just any needle from the workbasket in spite of the fact that in the average case no harm results. There are too many times when poisoning sets in to pay us to run any risks.

It doesn't take long to thread a needle with quite a long thread, put it in a small pan of water with the thread hanging over the edge, and boil it for a few minutes. You can then easily remove it from the boiling water without handling the needle and getting it contaminated. I might add that it is a fine thing if you have on hand a bottle of iodine with a glass rod in the cork so that you can follow up the removal of the splinter with an antiseptic. Such things seem trifling but blood poisoning is not.

Spanish Sauce

Before the final frost gets there, rescue some of your garden and make your winter meat sauces. Here is a recipe that goes well with Swiss steak, rice, spaghetti, or macaroni. These proportions were given by the state agricultural college of South Dakota but there is no hard and fast rule in regard to them: 2 lbs. tomatoes, 2 green peppers, 3 onions, 2 stalks celery. Scald tomatoes, skin, core, and chop. Blanch peppers, onions, and celery together for five minutes. Mix all together and pack in jars adding one teaspoon salt to the quart. Add boiling tomato juice to within three-eighths inch of the top of the jar. Partially seal and sterize in hot water bath for two hours or in the pressure cooker one hour at five pounds pressure.

The old fashioned open kettle method of cooking and canning may be used for this with entire success.

Figs for Health

The supply of fresh garden food is getting shorter and shorter and we must be looking to something to take its place if we are to keep well through the winter.

Prunes, of course, are the famous example of a food laxative and they are cheap and good—provided you happen to like them. Some people, however, have a great distaste for them and would almost rather be sick than eat them.

If you have any such persons in your family, try figs for a while. Buy them by the pound dried—either green or ripe—and of course a pound makes quite a good amount.

Wash them carefully. A person whose appetite has to be coaxed is not going to like these foods any better for finding a pebble in them. Soak them over night in water to cover and then simmer them gently in this same water till tender.

I use no sugar on either prunes or figs as we prefer the natural flavor and, besides, most people eat too much sugar. If you eat these fruits solely for laxative purposes, I think that you will find that a small dishful at night will do you more good than at any other time.

Friendly Talks for Farm Folks

Not all the Pool's horses
Nor all non-pooling men
Can seem to make milk
Bring its true price again.

⚜

That dairyman who is against pure-bred cows, tuberculin testing, the farm bureau, the grange, co-operative organizations and progress of any kind can also be marked down as against his own interests, first, last, and all the time.

⚜

The vacation season is once more a closed season, and as we see the thousands of disheveled joy-hunters returning to the daily grind, we wonder anew if they are any happier or richer or more rested than the poor, ploddng farmer who put in ten hours or more a day right through the summer without thought of anything but to get the work done alone.

⚜

Bug Norton says that the hundreds of folks who are trying to better the lot of the farmer have thought of everything to improve his condition except teaching him how to play golf. Which only goes to prove that these folks aren't in earnest at all about helping us hay-pitchers have a nicer, more cheerful time of it, for if they were they would surely show us how to play the game and let us give up farming every afternoon like all the business men and doctors and bankers and so on, do.

⚜

It's getting such hard times down on the farm that if the old wolf comes round to any of our kitchen doors this fall about tax time, he'll be darned lucky if we don't shoot him and make him into a succulent wolf pot-pie.

⚜

"A Farm Woman's Prayer" reads: "Keep ever in my soul a sense of the perspective, that my kettles and dishcloth may not obscure the beauty of the rose blooming outside my door, the quiver of the leaves in the summer wind, and the classic purity of the snow on the valley or hill."

⚜

Harlow Button tells the story of a young couple, neighbors of his years ago, who were so poor that they could not afford a clock during the first few years of their married life. So they would tell the time of day by the sun, work hard and long from sun-up to sunset, and go to bed with the chickens happy and contented on the farm even if they didn't have many worldly goods. This couple got into the habit of getting up mornings in the winter by seeing the light in a neighboring farmhouse. One time on waking and seeing the light across the fields they got up, the woman cooked breakfast, the man milked the two cows and did the chores and after eating they both sat down to await the sun. It did not appear. To their astonishment, the light in the farmhouse across the way suddenly went out. It was ten o'clock at night! Not long after this the clockless couple were presented with a time-piece by thoughtful neighbors. No doubt they thoroughly appreciated it.

⚜

Perhaps we are wrong, but in our opinion the young lady who encourages a husky young shiek from the farm who can handle his mettlesome tractor even better than the real article can a dapple Arab—is going to settle down into a happy wife and mother far removed from the shoddy make-believes of Hollywood. Nobody loves a shiekess, anyway.

New York. HELEN S. K. WILLCOX.



Paterson Vegetable Parchment keeps Butter fresh clean & Wholesome

Odorless, Tasteless, Moisture Grease and Air Proof; nothing better used in the largest creameries of the country.

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Blanke Mfg. & Supply Co., 214 Washington Avenue.
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Cherry-Bassett-Winner Co., 1139 Penn Avenue.
The Creamery Package Mfg. Company, 804 Du Quesne Way.
Memphis, Tennessee.
Bessire & Company, Inc. Beale Ave. at Front Street.
Dallas, Texas.
Huey & Philp Hardware Co., Elm & Griffin Streets.
Seattle, Washington.
Dairy Machinery Co., Inc. 903 Western Ave.
Watertown, Wisconsin.
D. & F. Kusel Company, 108 West Main Street.

THE PATERSON PARCHMENT PAPER CO.

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Send No Money

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Bottom and sides are one piece. Both interior and exterior surfaces are perfectly smooth, so there are no seams or crevices to harbor bacteria. The Duro Pail is made of **heavy gauge steel** heavily tinned, and will give a lifetime of service.

The Duro Seamless Hooded Milk Pail is strongly recommended by dairy authorities, for its use prevents dust and dirt from falling into the milk pail during milking.

Duro Pails are made in 14-qt. size only, and weigh 7 lbs. each. They may be supplied without hood when so ordered.

Send your name and address today and the Duro Sanitary Seamless Hooded Milk Pail will be shipped at once. When delivered pay the postman $2.25, (and a few cents extra for postage). Money refunded if at the end of 10 days you are not thoroughly satisfied with your purchase.

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THE CREAMERY PACKAGE MFG. COMPANY
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My Engine Will Do the Work of 6

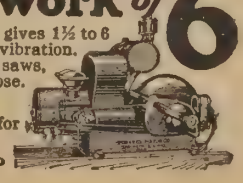


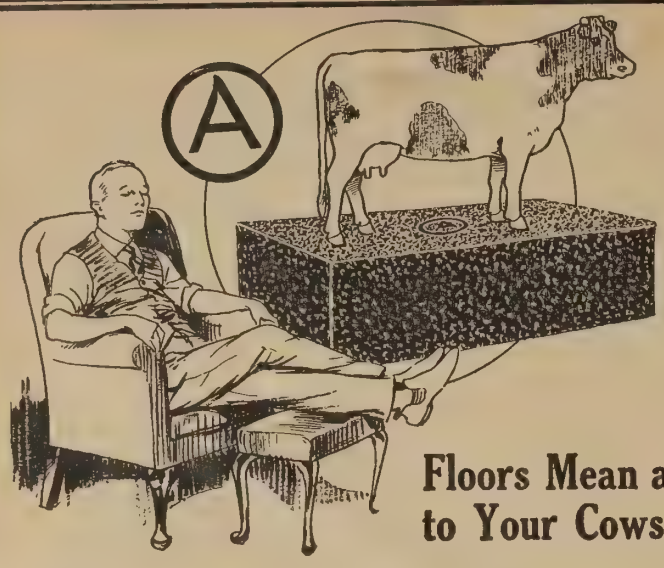
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Floors Mean a Lot to Your Cows

WHEN *you* get tired, you can sit in a chair or lie on a bed. But a cow can't sit and, when she lies down, it is on the same floor she has been standing on.

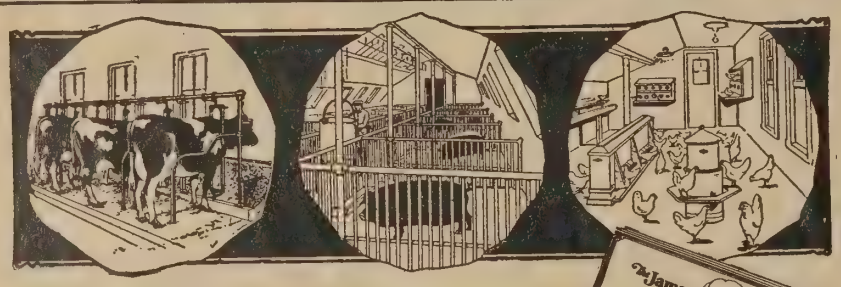
Just remember that when you are wondering what to lay in your stalls. Make it a comfortable floor—easy on the feet, warm, dry, clean. It makes a lot of difference to a cow whether she is uneasy and restless on cold, hard concrete, or contented and comfortable on Circle A Cork Brick.

And it makes a difference to you, too, for cow comfort pays in milk dollars. Circle A Cork Brick floors protect your cows against chill and dampness, against strains and injury from slipping, and against garget and bunchy knees. You are practising *real economy* when you floor your stalls with Circle A Cork Brick.

Write for a sample and the book, "Circle A Cork Brick," sent free on request.

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Circle A Cork Brick Floors
FOR DAIRY BARNS AND HOG HOUSES



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DAIRY MARKET NEWS

Milk Prices at Condenseries

The monthly summary of dairy prices and statistics issued by the Research Department of the New York Dairymen's League Co-operative Association contains the following table of prices paid per hundred pounds for 3.5 per cent milk by condenseries located in various sections of the United States:

Territory	September	August	July
Illinois			
Oregon	$1.60	$1.60	$1.60
Dixon	1.53	1.57	1.57
Sterling	1.53	1.57	1.57
Morrison	1.60	1.60	1.60
Greenville	1.70	1.70	1.60
Effingham	1.95	1.80	
Iowa			
Waverly	1.65	*1.44—**1.65	1.65
Kansas			
Mulvane	1.60	1.60	1.60
Sandusky	1.53	1.57	1.57
Michigan			
Howell	1.53	1.57	1.57
Mt. Pleasant	1.53	1.57	1.57
Sparta	1.53	1.53	1.53
Charlotte	1.75	1.75	1.70
Perrinton	1.53	1.53	1.54
Sheridan	1.53	1.53	1.54
Cass City	1.50	1.50	1.50
Ubly	1.50	1.50	1.50
Lake Odessa	1.50	1.50	1.50
Wayland	1.60	1.60	1.50
Hudson	1.60	1.60	1.50
Belleville	1.60	1.60	1.55
Coopersville	1.60	1.60	1.50
Ohio			
Marysville	1.55	1.60	1.55
Lodi	1.90	2.10	1.77
Delta	1.60	1.60	1.50
Minerva	1.60	1.60	1.50
Orrville	2.30	2.15	2.15
Wisconsin			
Monroe	1.53	1.57	1.57
New London	1.53	1.57	1.57
Berlin	*1.49	1.44	1.44
Richland Center	1.49	1.44	1.44
Chilton	1.49	1.44	1.44
Oconomowoc	1.55	1.50	1.50
Jefferson	1.55	1.50	1.50
Sullivan	1.55	1.50	1.50
Juneau	1.60	1.60	1.60
Waupun	1.60	1.60	1.60
Whitewater	1.60	1.60	1.60
Reedsburg	—a—	1.68	b
Delavan	1.60	1.60	1.60
Burlington	1.60	1.60	1.60
Valders	—a—	1.66	c
New Glarus	1.60	1.60	1.60
Merton	1.50	1.50	1.60
No. Prairie	1.60	1.60	1.60
Footville	—a—	1.60	1.60
Albany	1.60	1.60	1.60
Carnation	—a—	1.50	1.60
Elkhorn	1.65	1.65	1.65
Pennsylvania			
Hill Hall	1.64	1.64	1.59
Spring Mills	1.64	1.64	1.59
Concordville	2.62	2.62	2.62
Poughkenamon	2.35	2.35	2.35
British Columbia			
Vancouver	—a—	2.01	1.95

—a— Price not available until October, 1924
—b— Average Chicago 92-score plus 40c.
—c— Ten times average Longhorn cheese quotations plus 10c.
* First half.
** Second half.

August Powdered Milk

(Report by U. S. Dept. of Agriculture)

Producers supplying powdered milk plants during August received from $1.50 to $1.95 a hundred for 3.5 per cent milk. These plants pay from 15c to 20c a hundred for skimmilk and from 6c to 18c a hundred for buttermilk.

During August powdered whole milk sold for 50c to 60c per pound as case goods and for 22c to 28c per pound in barrels. Powdered skimmik sold for 40c to 44c per pound as case goods and for 5½ to 12c a pound in barrels. Dried buttermilk sold for 8½c to 6½c a pound in barrels.

September Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers for 3.5 per cent milk delivered at factories during September is based on reports made by condensed and evaporated milk firms:

Geographic section	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.12	$2.12
Middle Atlantic*	18	1.58—2.62	1.81
South Atlantic	1	2.32	2.32
E. North Central	70	1.45—2.60	1.62
W. North Central	4	1.53—1.65	1.59
North Western	11	1.44—1.66	1.64
South Western	9	1.53—1.88	1.62
United States	114	1.44—2.62	1.66

*Fifty-nine additional factories reported prices to be based in part on the current month's wholesale butter quotations. Twenty-four factories reported prices not determined, and nine reported plants closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for August:

	Range	Ave.
Condensed, per case	$5.20—$6.30	$5.76
Condensed, per cwt.	6.90—11.00	9.23
Evaporated, per case	3.34— 4.45	3.89
Evaporated, per cwt.	7.30—14.00	9.14
Condensed skim, per cwt.	4.00— 7.00	5.77
Evaported skim, per cwt.	1.67— 7.60	3.96

The immediate outlook so far as canned milk is concerned shows some improvement but it remains that dairy markets in general are entering the fall season with heavy surpluses. September holdings of butter in storage were 156,232,000 lbs., an increase of 52 per cent over September 1, 1923. American cheese holdings at 76,431,000 lbs. also represented an increase over last year amounting to 20 per cent. The increase on condensed and evaporated milk stocks September 1 over 1923 was 7 per cent.

League's Pool Price for August

The New York Dairymen's League gross pool price for August is $1.72 per 100 lbs. for 3% milk at the 201-210 mile base freight zone. This is an increase of 22 cents over July. Deductions for expenses in August amounted to 8½ cents and for certificates in indebtedness 10 cents. The net pool price, therefore, is $1.635 and the cash distribution is $1.535.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were weak and unsettled during the week, September 22-27. Sentiment appeared to favor lower prices in the belief that cheaper butter would greatly improve consumption. Production conditions were good and continued to be a bearish factor. Storage holdings showed a slight decrease but not sufficient to improve the situa-

Carload Prices of Hay, Straw, and Feed, Sept. 27, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	27.50	27.50	.....	21.50	19.75	26.50	26.75	24.00	18.50	24.00	20.00	24.50	....	16.50	
No. 1 Clover, mixed	20.50	.....	.....	19.00	16.75	.....	.....	.....	17.00	.....	.....	.....	.....	15.00	.....
No. 1 Clover	.....	.....	.....	18.00	.....	.....	.....	.....	18.00	15.00	.....	20.50	.....	16.50	.....
No. 1 Alfalfa	.....	28.50	.....	.....		32.00	29.00	.....	28.00	22.00	24.00	22.00	17.00	22.00	27.00
Standard Alfalfa	.....	26.00		.....		26.00	27.00	26.50	.....	18.00	20.00	.....	14.50	20.00	26.00
No. 2 Alfalfa	.....	23.50	.....	.....	.....	24.00	.....	22.50	25.00	16.00	15.00	.....	12.50	18.25	25.00
Oat Straw	13.00	14.50	14.00	12.00	13.50	.....	.....	.....	11.00	10.50	8.50	.....	8.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	31.00	.....	31.00	29.50	31.00	.....	.....	.....	28.50	25.75	23.00	.....			.....
Soft Winter	33.50	.....	33.00	30.50	33.00	32.50	.....	.....	29.00	.....	23.50	26.00	.....	.....	35.00
Hard Winter	32.25	.....	32.00	30.00	...	32.00	.....	26.50	28.50	...		25.00	22.50	.....	.....
Wheat Middlings		.....					.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring (Standard)	32.75	.....	32.25	31.00	33.00	38.00	.....	.....	31.50	27.50	24.75	.....	.....	.....	44.00
Soft Winter	39.00	.....	39.00	35.50	34.00	.....	.....	.....	35.00	.....	.....	.....	.....	.....	.....
Hard Winter	.....	.....	.....	36.50	.....	36.00	.....	.....	35.00	.....	.....	31.00	30.50	.....	.....
Wheat Millrun	.....	.....	33.50		.....	37.00	.....	.....	.....	.....	27.00		.....	.....	.....
Rye Middlings	.....	.....	.....	.....	.....		.....	.....	.....	.....	24.00		.....	.....	.....
High Protein Meals															
Linseed	51.00		51.00	50.50	.....	.....			49.00	46.00	43.50	46.50	48.50	.....	46.00
Cottonseed (41%)	48.75	.....	48.75	47.00	...	.....	.....	41.50	45.00	45.75	+6.50	+4.00	.....	.....	.....
Cottonseed (36%)	45.00	.....	44.75	43.00	44.50	36.00	.....	37.00	42.00	41.75	+3.50	+2.00	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	...	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	32.00	.....	.....	27.00	28.50	29.50	.....	26.00	26.50	.....	31.00
Gluten feed	47.95	.....	46.90	44.70	.....	.....	.....	.....	43.70	40.80	43.90	.....	.....	.....	.....
Hominy feed (white)	45.75	.....	45.00	.....	47.00	49.00	.....	.....	41.50	41.00	...	39.50	37.00	.....	.....
Hominy feed (y'llow)	44.50	.....	44.00	.....	46.00	49.00	.....	.....	41.50	40.00	38.50	....	37.00	.....	48.00
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	43.00	41.00	.....	.....	.....	37.00
Dried Beet pulp	.....	.....	.....	37.30	40.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	

tion materially. Foreign markets were firmer and limited quantities of both domestic and foreign butter were exported.

The average wholesale prices on 92-score butter for the week ending Sept. 27, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Sept. 27 1924	Sept. 20 1924	Sept. 27 1923
	Cts.	Cts.	Cts.
New York	37.4	37.5	45.7
Chicago	35.5	37.2	44.0
Philadelphia	38.2	38.5	46.7
Boston	37.5	38.3	46.5
San Francisco	37.2	38.2	48.3

The receipts of butter at these markets were 12,784,086 lbs. for the week as compared with 12,857,414 lbs. for last week and 11,961,904 lbs. a year ago.

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets fairly firm but irregular during week ending Sept. 27th. Price advances of the previous week at country points appeared somewhat too high and distributing markets failed to follow them. Out of town trade was often heavier than local business in the distributing markets due to more favorable prices there than at country points. Production conditions continued favorable but with a gradual drop in the make apparently under way.

The average wholesale prices on American cheese, style Twins, for the week ending Sept. 27, 1924, for the corresponding week a year ago and for the previous week were as follows:

	Ave. for the week ending Sept. 27 1924	Sept. 20 1924	Sept. 27 1923
	Cts.	Cts.	Cts.
New York	22.0	21.9	26.4
Chicago	20.1	20.0	25.0
Boston	21.8	22.0	27.0
San Francisco	18.3	18.7	26.6
Wisconsin Boards	20.5	20.0	25.7

The receipts of cheese at these markets were 4,542,606 lbs. for the week as compared with 4,448,661 lbs. last week and 4,689,702 lbs. a year ago.

MILWAUKEE, Oct. 6—Butter—Market quoted firm; receipts, 26,537 pkgs., yesterday, 15,572 pkgs. Creamery, extra, tubs, 36½@37c; standards, 34¾c; extra firsts, 33½@34c; firsts, 31@32c; seconds, 29@30c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 40@41c; ordinary firsts (standard cases), 37@38c; miscellaneous lots, shippers' cases returned, candled, 35@37c; seconds, dirties, 26@27c; checks, 25@26c.

Cheese—American full cream, Twins, 20@20½c; Young Americas, 20½@21c; Longhorns, 20½@21c; Daisies, single, 20@20½c; squares, 21½@22c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

NEW YORK, Oct. 6—Butter—Steady; receipts, 5,249 pounds. Creamery higher than extras, 39@39½c; creamery extras, 92-score, 38½c; creamery, firsts, 88- to 91-score, 34½@38c; packing stock, current make, No. 2, 27½c.

FOND DU LAC, Wis., Oct. 2—Average cheese prices (majority of sales), f. o. b. shipping point: Single Daisies, 20½c; Longhorns, 21c; square prints, 21¾c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Sept. 27: Single Daisies, 19½c. On Farmers' Call Board, Sept. 26: Young Americas, 20c; Longhorns, 20½c; square prints, 21c.

CHICAGO, Oct. 6—Trading in the butter market today was quiet following some support early in the day which resulted in prices remaining unchanged. Supplies were liberal, but not burdensome, however, even with dealers offering all grades liberally at listed prices. The centralized car market was quiet, with a liberal supply of cars, which were offered freely.

Fresh butter—92-score, 37½c; 91-score, 36½c; 90-score, 35½c; 89-score, 34c; 88-score, 32½c; 87-score, 31½c; 86-score, 30½c. Centralized carlots—90-score, 34¾c; 89-score, 33c; 88-score, 32c.

Cayuga County Guernsey Sale

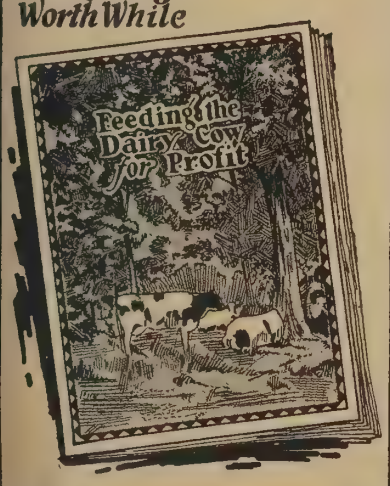
The Fourth Annual Cayuga County, New York, Guernsey sale was held at the D. M. Dunning Farm, September 8th, 1924. The sale was well attended showing proper credit to Cayuga County as a Guernsey producing county.

Although the fifty-three females sold averaged a little lower than last year's sale, yet this was due largely to the large number of young animals being offered. The top price was $1,000 for Lily Calore of Meadow Springs 87110, a six-year-old with an Advanced Register record of 13,911.60 lbs. milk and 589.77 lbs. fat, Class C. She was bred and consigned by Howard Slayton, New York, and bought by the Circle W. Farm, Ohio. The second top price of $525 was paid for Dolly's Chenette of Farview 98251, she too going to Circle W. Farm. She was consigned by W. W. Minard & Son of King's Ferry. The sale was managed by Merryman and Bain was in the box.

The following lists the animals sold for $300 or over and their buyers:

Circle W. Farms, Ohio	
Lily Calore of Meadow Springs	$1,000
Dolly's Chenette of Farview	525
A. D. Robinson, Pennsylvania	
Broadlawn May Queene	$500
Broadlawn Nancy	300
Carrie of Maple Leaf	300
Kyrta's Liberty Bell	415
Charles F. Everson, New York	
Edgemere Mildred	$300
Hallie's Honey Dew	320
Gold Mine's Beauty Dimple	310
H. E. Babcock, New York	
Broadlawn Bessie	$365
Peace of Cornerview	460
W. D. Boyle, New York	
Von Davreeda's Daisy	$350
Chas. C. Wickwire, New York	
Edgemere Frances	$335
Everett & Thompson, New York	
Criterion's Polly of Farview	$300
Wm. Brennan, New York	
Miss Irma's Rose of Valley View	$325
Sweetheart's Thanksgiving of Farview	435
Wm. Judson, New York	
Cherry's Liberty Bond	$375
Levi A. Martin, New York	
Rose's Beauty of Farview	$300

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.....

The Farmers and the Labor Leaders

LEADERS of railway labor unions are carrying on a movement for the Howell-Barkley bill and **for government ownership of railways,** in which they are seeking the support of the farmers.

For the purpose of furthering this movement the labor leaders have issued a "blacklist" of members of Congress which shows that they themselves pay no attention whatever to what the farmers want.

There were both "labor" bills and "farm relief" bills introduced at the last session of Congress. The Howell-Barkley bill was written by the railway labor leaders and was intended by them to increase their power in railway matters. The principal "farm relief" bill introduced was the McNary-Haugen bill.

The Labor Leaders' "Blacklist"

How little these railway labor leaders care for what the farmers want is shown by the following indisputable facts: The labor leaders have "blacklisted" 94 members of Congress. That is, they have told the members of the labor unions that these members of Congress are "unfair" and to vote against them. **Of the Congressmen "blacklisted" 28 voted for the McNary-Haugen bill.**

These railway labor leaders have also "endorsed" 130 members of Congress for re-election. **Of the Congressmen endorsed by them 71 voted against the McNary-Haugen bill and 13 did not vote on it at all.**

These facts show the labor leaders gave no consideration to the farmers or other classes of people in making up their "blacklist." **The only test they applied was how members of Congress voted on the labor leaders' own measure, the Howell-Barkley bill.**

True Purpose of Howell-Barkley Bill

The principal purpose of this bill is to abolish the Railroad Labor Board which now passes on controversies between the railways and their employees regarding wages and working conditions. One-third of the members of this board represent the railways, one-third represent the railway employees, and **one-third represent the public and are appointed by the President of the United States. The Howell-Barkley bill, by destroying the Railroad Labor Board, would deprive the public of all voice in settling disputes between railways and employees.** It would make peaceful settlements of such disputes more difficult and strikes more probable.

The Howell-Barkley bill, by depriving representatives of the public of all voice in the settlement of railway labor disputes, and increasing the danger of strikes, would increase the power of the labor leaders. It would thereby make it much more difficult or even impossible in future for the railways to reduce operating expenses and rates. The principal reason why present railway rates are necessary is the high cost of labor. **The average freight rate of the railways of western territory is now only 38 per cent higher than it was ten years ago. The average hourly wage of railway employees is almost 140 per cent higher.** In view of these facts, do farmers want legislation passed that will increase the power of the railway labor leaders?

What Louisiana Farm Bureau Said

The Howell-Barkley bill will be up for consideration when Congress meets again. The Louisiana Farm Bureau has adopted a resolution saying that "we oppose and condemn the theory and effect of the Howell-Barkley bill" and declaring that "it ignores the rights and interests of the farmers and other shippers."

Farmers in their own interest should oppose the movement the railway labor leaders are carrying on for the Howell-Barkley bill, and **for government ownership of railways, which the labor leaders frankly avow is their ultimate object.**

This is one of a series of advertisements published to give the farmer authentic information about railroad matters. Any questions that you would like to ask will be cheerfully answered. Address:

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS
650 Transportation Building, Chicago, Illinois

S. M. FELTON, President, Chicago Great Western Railroad,
L. W. BALDWIN, President, Missouri Pacific Railroad,
RALPH BUDD, President, Great Northern Railway,
H. E. BYRAM, President, Chicago, Milwaukee & St. Paul Ry.,
W. H. FINLEY, President, Chicago & North Western Railway,
CARL R. GRAY, President, Union Pacific System,
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C. E. SCHAFF, President, Missouri-Kansas-Texas Lines.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Afield in Clubland, Michigan

IT was a raw, dreary October day. The rain was cold and nasty. Not the kind of a day one would pick for a trip through Clubland, but the weather is one of the things that can't be helped. We have to take it as it comes. Nevels Pearson, assistant state club leader for Michigan, and myself were making a visit to that part of Clubland called Hillsdale County, Michigan. We had spent the morning in town and were now ready to go further on our journey.

The county club leader, L. H. Matthias, had scheduled us for a country dinner twenty miles away and rain couldn't keep us from eating. At the same time we would be visiting some calf club boys. So we piled into the club leader's Ford and rattled off through the rain. There were three of us—Mr. Matthias, Mr. Pearson, and myself. Although the weather was stormy, bursts of sunshine came through the clouds all the afternoon as we visited different club members and felt the atmosphere clear up under their sparkling enthusiasm.



HILLSDALE COUNTY HOLSTEIN CALF CLUB MEMBERS ON A SUMMER TOUR

The first boy to the right of the bull picture on the front row is Norbert Walkup. Third to the right on the front row is Hugh Marshall.

We had been delayed during the morning and so it was past the usual dinner hour when we arrived at the Walkup farm. But good Mrs. Walkup had saved our dinners, and after the somewhat long, cold ride, it certainly struck the right spot.

Mr. Matthias had told us that we were going to call upon a very unusual family and indeed we found it so! Nine boys—the four oldest being calf club members belonging to the Wright Stock Club. Another brother was about ready to join and it probably won't be many years before the other members of this large and happy family will be good club boys.

Walkup Brothers, Breeders of Holstein Cattle—this is the title that these boys are planning to use some day before long. We went out to the barn and there—knee deep in fresh, clean straw—we found the beginnings of a very fine Holstein herd—four heifers and their three calves. Walter, seventeen, and the oldest of the boys, was the owner of Spring Valley Betty Own; Norbert, fifteen, owned Spring Valley Tehee Wayne and her heifer calf just a few months old; Robert, thirteen, owned Spring Valley Blackhawk with a small bull calf; Calvin, eleven, owned Spring Valley Irene Ragapple with a young heifer calf. These four boys paid $100 apiece for their heifers and think it was a very profitable investment.

But we haven't introduced all the boys yet—Donald, aged ten, was just waiting for his father to say the magic word that will permit him to belong to the calf club. Harry, eight, Max, seven, Paul, five, and baby Arnold complete the prospective membership of the firm of Walkup Bros.

The calf club quartette introduced the first registered Holsteins into their father's herd. Now that their heifers have freshened they are keeping records of the milk and fat production. Although all are going to school every day, they find time to take care of their animals. Their heifers have all been tested for tuberculosis. This is the fourth year for these boys in club work. Besides their heifer calves they purchased a young bull, Kneedmore Pietertje Pontiac, to head their little herd.

Before we went back to the house, they took me to see their ponies, Betty and Gypsy. The chief duty of these ponies is to see that the Walkup "tribe" gets to school on time daily. Mr. Walkup has built a small shed on the school grounds, a half mile distant, for the express purpose of sheltering these faithful little beasts. At the county fair the boys won a red ribbon on Betty, age fifteen, while Gypsy, her eight-year-old colt, ran away with a blue ribbon on the race track.

From the pony shed we went into the house where the boys took great delight in showing the ribbons they had won. From two consecutive showings at the county fair they had gathered in twenty-seven ribbons. In 1922 all four boys showed and finished in this order—Walter (the oldest) first, Robert second, Norbert third, Calvin fourth. In 1923 Calvin did not show because his heifer was freshening, but the others placed like this—Walter third, Norbert fourth, Robert fifth. Norbert's little heifer calf also won third in the open class.



"WALKUP BROS., HOLSTEIN BREEDERS" MIGHT BE THE TITLE OF THIS PICTURE WHICH WAS "SHOT" AT THEIR STATE FAIR RECENTLY

From left to right they are Robert, Calvin, and Norbert.



Robert Walkup recently sold this young bull but showed him at the 1924 Michigan State Fair, where this picture was taken.

In all, Walkup Brothers won in 1923 something like $22 in prize and club money. The young bull won second in the club class and first in the open at the county fair.

It might be well to mention that these boys are gaining proficiency in judging live stock. Walter won highest honors in 1922 at the county fair, and went to the state fair with his expenses paid. Robert was second, and Norbert won fourth and a trip to the National Club Congress in Chicago.

Our visit at the Walkup farm came to a close all too soon, for we had other club members to call on and the afternoon was already well started. So, bidding the Walkup family good bye, we drove on in the rain. When next we stopped it was at the farm of Mr. Marshall where resided Hugh, aged thirteen, and his sister, Catherine, eleven, nephew and niece of Mr. Marshall, and a couple of "reg'lar" calf club members. Mr. Marshall met us in the yard and explained that on account of the rain he thought perhaps we weren't coming and had sent the children back to school. But we climbed out and went into the barn to look over the calves. They were sleek looking young animals, and showed evidence of having received considerable attention at the hands of their young owners. We were not surprised that they had been prize winners at the county fair. It was nearly time for school to be out, so we decided to go there and meet Hugh and Catherine. As Mr. Marshall wanted to bring Catherine home, he drove ahead of us.

We had not long to wait at the school for soon the boys and girls began coming out. In a minute or two Mr. Matthias had hailed both the juniors in question who climbed into our Ford for a brief visit. Hugh was going to a Freshman party and, of course, was somewhat excited, but had time to tell us that his heifer, Sunrise Ormsby Segis, won two firsts and a grand championship at the county fair and had gone to the state fair and won second in the club class there. Catherine said that her heifer, Sunrise Ormsby Colantha, had been second to her brother's at Hillsdale and won fifth in the open class at Detroit. Both paid $100 each for their calves. Catherine had also had success with a Spotted Poland China pig the year before.

It was growing late. We had a drive of ten miles through the rain and another visit to make before we would head for Hillsdale again. Hugh was going to a party; Mr. Marshall was waiting to take Catherine home. Reluctantly we said good-bye and splashed on toward the Perkins home.

The curtain of dusk was falling over the rain soaked country as we turned in at the Perkins' gate. Dorothy, "sweet sixteen" and mighty attractive, stood on the back porch, bareheaded and clothed in an apron—we had apparently caught her at work in the kitchen.

"Yes, mother's gone and dad and the boys are milking, but come right in. I've been waiting all afternoon for you. I had just about given you up. Thought maybe the rain had kept you away. I'm just awfully glad you came. Come right in!"

We followed her into the house and were soon seated in the parlor having a delightful visit. Before long, Mr. Perkins and the boys came in from the barn. Dorothy's younger sister came in, too, so there was quite a little group of us. Dorothy, bubbling over with enthusiasm, began talking club activities with Mr. Matthias. She brought out a box of club pins that had just arrived and showed them to us. I soon learned that this capable young lady was secretary of the county club organization, and from what I had already seen of her ability, I was convinced that the club members of Hillsdale County had made no mistake in choosing her to fill this office.

"How are the calves, boys?" the county club leader asked. "Fine,"



Norbert Walkup is planning to sell this good looking Holstein heifer. He won prize money on her at the 1924 Michigan State Fair.

Clyde and Clair answered. And then I was told that Dorothy, Ina, Clyde, and Clair each had a nice Jersey calf.

Mr. Pearson then volunteered the remark that Ina was a good little live stock judge and had been third highest in the judging contest at the Hillsdale County Fair. Truly, here was another fine family of club winners.

"I've heard quite a little about your canning, Dorothy. I'd like to see what you've put up," I ventured.

"Would you, really? It isn't much," and with that we all got up and Dorothy led us down cellar. As we came to the shelves of clear, beautifully tinted fruits and vegetables, jellies, and jams, I marvelled at the abilities of Dorothy. Here was a paradise of sweet stuffs for

father and the boys, and a haven of satisfaction and rest for mother and the girls. No need to worry about what to have to eat, nor about the children eating sweet stuffs at school, with all these jams and jellies to satisfy their "sweet tooth".

"How much have you put up, Dorothy?" I asked. "About 815 quarts," was her modest reply. And again I marvelled. Mr. Perkins was as proud as could be of his daughter's accomplishments and handled the jars tenderly as he showed the handsome ones to us.

"Dorothy won first in canned goods at the Hillsdale fair this fall," said Mr. Matthias. "You don't wonder that she won a trip to the state fair on her canning work last year, do you?" "I should say not," I replied with emphasis.

We returned to the front room and as we sat down again, I asked Dorothy if she did any milking. "Yes," she said, "I've milked ever since I was five years old and I like it." Then the county club leader broke in again, "She was third in the milking contest at the state fair last year. She would probably have won if her hands hadn't been bandaged. She had a poison ivy infection early in the week and it kind of handicapped her in the milking contest."

Mr. Matthias then went on and told me that this was Dorothy's second year in club work and that as a reward for her calf club achievements and her general activities she was going to the International Live Stock Exposition at Chicago. "Quite some club girl," I said to myself and audibly to Dorothy I complimented her.

Having noted that the time was getting late we started to go, but Dorothy interrupted: "Won't you stay for supper?" Now, I knew that Dorothy Perkins was a good cook. I had been seeing samples of her handiwork that were deliciously tempting. I was quite willing to accept her invitation, but trains, like the weather, aren't subject to one's commands, so this added pleasure was denied us.

There was much to think about and talk about on that ride back to Hillsdale. Although it was cold and the downpour had not let up all day and we had to stop to put on the curtains and the roads were a wee bit slippery, the sunshine that had come from within at each stop along the road where boys and girls had followed the gleam of the club star, cast a glow of happiness and a warmth of contentment that had almost completely dispelled the outward gloom of wind and storm.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

In the October 3 issue of Hoard's Dairyman you will find three articles which we will discuss briefly here. These are entitled "How Peter Cologna Kept His Boys", "Sewage Disposal for Farm Folks" and "Breed to the Breeders".

Give briefly the experiences of Peter Cologna. Sixteen years ago this farmer found his health failing, his three sons nearly grown and likely to leave him with two hundred acres of timber land on his hands. Almost in desperation he turned to the dairy cow to help him out. The boys agreed to stay and try dairy farming. On borrowed money they purchased their first cream separator and enough stock to start out. Hard years followed, but perseverance finally won. Last year their fancy table butter brought a total income of $7,500.

What is a septic tank? This is the most successful means of sewage disposal for farm conditions. A cesspool is not only out of date but is unhealthy.

How does a septic tank work? Sewage kept in a dark, air-tight place tends to become liquid. When the sewage enters the first tank the solids settle to the bottom and the grease and lighter particles to the top. The second change is the breaking up of the solids. These changes are brought about by tiny organisms known as germs. The liquid then passes over into the second tank from where it is discharged into the tile system.

What takes place in the tile system? The liquid filters through the tile at the loose joints and is spread out in the soil where more germs attack it and make it pure.

How has C. C. Dickson, owner of the Ashburn Herd, increased production 70 per cent in five generations? By breeding cows whose calves would be an improvement.

How does Mr. Dickson measure the value of a sire? By his proven ability to sire daughters that are superior to their dams.

What advice does Mr. Dickson give for improving a dairy herd? First, keep individual production records not for a year but for a lifetime. Second, be merciless in culling.

Junior Letter

Proud of Creed

I received our creed. I keep it in a place where it will not get soiled. Everybody that comes into our house, I show it to. I am proud of it. My favorite dairy breed is Jersey cows. I have not been able to write for some time as I have been busy picking berries and the like. I am anxious to get my other emblem of our club.

There are a few girls around here that I think will join our club if they get the Hoard's Dairyman paper.

I hope to hear from you soon. My address is R. F. D. No. 2, Hornell, N. Y.

Your new junior,
Mary Larkin.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

Minister—Do you know where little boys go that smoke cigarettes?

Boy—Sure, down in Flanagan's alley.



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This Vibrationless Essex Six Means Longer Car Life—$1000

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The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

For Sale—Registered Holstein herd. 40 head. Price $6,000. 25 from 35 lb. sire. 10 from 30 lb. sire. MAX WITTE, Route 5, Watertown, Wis. 11-*

Holstein Springers and heifers, car lots or less, priced reasonable. EDW. YOHN, Watertown, Wisconsin. 12-5

Holstein Herd Sires for sale or will trade for either grade or pure bred federally tested females. No. 1 Norrth Star Gift Champion, a 4 year old son of Johanna Bonheur Champion. Dam, the great 1,000 lb. cow, Little Gift of Spring Valley. No. 2, King Fayne Star Pontiac Segis, a 4 year old son of King Segis Pontiac Count. Dam, Johanna Fayne Star, 31 lb. daughter of Sir Johanna Fayne. Come and see them or write WALCOWIS FARMS, Lake Geneva, Wis. 12-*

For Sale—Complete herd of pure bred Holsteins. 19 milking, all with good A. R. O. records. 14 head young stock. A fine opportunity for some one. Apply PAUL REED, Oconomowoc, Wis. 12-3

17 heavy springing, registered Holstein cows, mostly young, some daughters of A. R. O. cows and bred to $1500.00 son of Creator. Also 24 lb. son of same sire nearly ready for service. JOHN ZENTENER, Kilbourn, Wis. 11-spl

For Sale—High grade, T. B. tested, Holstein springers, carload lots. S. L. MURDOCK, Troy Center, Wis. 11-spl

Iowa County Holstein Breeders' Association. Consignment sale, Mineral Point, Wisconsin, October 22 and 23, 1924. 135 Holsteins, pure breds and grades. 15 straight topped, well grown young bulls, 6 months to 2 years old, and from good A. R. O. dams. 40 select, typy young cows, bred to freshen within next 3 months. Some of these have good A. R. O. and C. T. A. records. 20 fine 2 year old heifers. A few choice 6 to 8 months old heifers. The entire offering is sired by and bred to excellent sires, several of them with better than 30 lb. records. Some of the animals offered are blue ribbon winners at our fairs. 20 head choice grade yearlings bred for spring freshening. Two carloads of choice grade springers. These are selected; the good ones from several herds. These are good honest cattle. Not a 3 teater or a poor quarter in the lot. Write for catalog to J. ROY GORDON, Sales Mgr., Mineral Point, Wis. 13-2

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Guernseys: Ten fresh or springers, with cow testing records, must be guaranteed free tuberculosis and abortion and priced right for cash. J. HOWARD CLIFFE, Ivyland, Pennsylvania. 12-*

Registered Guernsey Bull Calf. A. R. dam, $55.00. B. McADAM, Mosinee, Wis. 12-2

Two Serviceable Guernsey Bulls for sale. Dams have over 500 lbs. fat. Six bulls 6 months old. Dams and grandams average 697 lbs. fat. Sale list. HOMER RUNDELL, Livingston, Wis. 9-Spl

Registered Guernsey Heifers—One fresh and one recently bred. Federal tested. C. A. BALCOM, Ohio, Illinois.

Ayrshires—Cows, heifers, bull and heifer calves. Will be sold at a bargain. CHAS. DUNBAR, Elkhorn, Wisconsin. 12-2

Jersey Bulls—Ready for service. Reasonable prices. RAVINE FARM, Highland Park, Illinois. 10-4

STOCK WANTED

Wanted—Eight or ten good Guernsey cows. ENEWALD BROS., Muskegon, Mich., R. 8. 12-2

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

Holsteins-Guernseys; High class cattle, any age, bought on commission. A. F. BENNETT, Pewaukee, (Waukesha County), Wis. 10-4

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Shepherd Pups. Satisfaction guaranteed. Heelers with nerve $8.00. WILBUR DAY, Brighton, Iowa.

POULTRY

Single Comb White English Leghorn cockerels. Ever laying strain $1.50 each. W. F. VIEREGGE, Sparta, Wisconsin. 12-2

SWINE

Durocs—Healthy, vigorous spring pigs, both sexes. Shipped on approval. WALTER SCHEDLER, Cox-sackie, New York. 12-2

FARMS FOR SALE

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

For Sale—Improved farm and cutover lands. Come and see crops growing now. Dairy industry has increased 500% in one year. Any size farm wanted. Write owner. H. B. OWEN, Pontotoc, Miss. 11-4

160 Acre Improved stock or dairy farm, $35. CLAUDE AUSTIN, Blue Mound, Kans. 12-2

200 Acre stock and sheep farm, well improved and equipped, good buildings; 3 miles to town and Mille Lacs Lake; $75.00 per acre, your own terms. FIRST NATIONAL BANK, Milaca, Minn. 12-4

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Register and Secure a Farm. Hundreds have already started on our wonderful colonization plan. Come and see their fine new homes. We will also help you start in Wisconsin. You can get 40 or 80 acre dairy farms for only $100 deposit and balance in 10 years. Close to big towns. Many neighbors. Best, richest, gently rolling, Wisconsin clay loam. Only $2,000 for 40 with nice house, good barns, best milk cows. A greater opportunity than a U. S. Homestead. Particulars free. National Land Colonizing Co., Dept. G7, Madison, Wisconsin 13-2

Dandy South Georgia Dairy, bright tobacco farm, twenty six acres, near county seat, prosperous railroad town, thirty-five trains daily, pastures entire year, climate and markets unsurpassed; must be sold soon. Address, CLEMENTS DAIRY, Box 86, Folkston, Ga.

250 Acres—2 sets bldgs., 23 cows, 3 horses, crops, 1924 auto truck, poultry, full implements, tools, etc., income nearly $4,000 last year; money making farms all around; near village, city markets, 150 acres fields, 45 cow river watered pasture, woodland, about 500 sugar maples; apple orchard; good 2 story house, spring water, tenant house, 60 ft. basement barn, silo, garage, granary, stable. To settle affairs all for $7,750, less than half cash. W. H. Maynard, Canastota, N. Y.

Just Out. Fine free picture catalogs of Shawano, Oconto and adjoining county farms. No commissions. Deal direct with owner. Write today. THE WISCONSIN FARMERS & HOMESEEKERS SERVICE BUREAU, Marshfield, Wisconsin.

For Sale—Ideal home community 60 acre dairy farm, rich soil, slightly rolling; railway one mile; south central Wisconsin. Fine 8 room brick house, fine 34x70 barn, silo, garage, chicken coop, etc. Small payment. Write E. HAWKS, 4406 Pabst Ave., Milwaukee, Wisconsin.

$550 Get 28 Acre Farm with cows, crops and equipment; just off state road, 5 minutes walk village, convenient markets; 20 acres money-making fields, spring water, wire fences, woodlot; 31 fruit trees; good 2 story 7 room house, running water, ample barn, poultry house, garage. Owner alone, $1,550 for all, only $550 needed. Details page 65 New Illustrated Catalog. 152 pages money-making farm bargains. Copy free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

500 Acres rich lime land. Established 100 gallon milk route in Montgomery. Magnificent pastures for nine months. Splendid roads and schools. Climate and conditions ideal for dairying. This is a great bargain. H. B. S. 14 Capital Parkway, Montgomery, Alabama.

145 Acres real dairy and hog farm, been run for registered Guernseys. Grand opportunity for registered dairy stock. On state highway to Chicago. Modern home, furnace heat. City water in barn. Long time given, no trades. LEVI WOODBURY, Zumbrota, Minnesota.

Dairy Farm—25 acres carrying 20 cows, milk selling at 15 cents per quart. Aged owner reason for selling. for paticulars address T. O. THURSTON, R. F. D. 7, Manchester Station, Richmond, Virginia.

240 Acre stock and grain farm. Good soil, well improved, located in Central Minnesota. Only $60.00 per acre. $1,000 cash. Balance on time at three per cent. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, Saint Paul, Minnesota. 13-4

FOR RENT

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

For Rent—175 acre dairy farm, near Chicago, with 75 Holstein cattle. Small payment. Possession any time. Address BOX 299, care Hoard's Dairyman 11-3

Kansas Dairy Farm for rent on 50-50 basis. 322 acres, 3 miles from city limits. 70 acres alfalfa, 100 acres corn, balance pasture. On hard-surfaced road. 180 ton silo, modern cow barn, horse and hay barn, 4 houses. Possession can be given now fully equipped. Prefer man with own help. Write owner. J. V. ABRAHAMS, Topeka, Kansas. 11-spl

Tenant Wanted for 160 acre farm 8 miles from Ft. Wayne, Indiana. Write T. TURFLINGER, Route 9.

Dairy Farm for rent in Central Minnesota. Good buildings. Wonderful clover soil. The right man can make good money on livestock and potatoes. Will make an attractive proposition to a good man. HAROLD HARRISON, 517 Marquette Ave., Minneapolis, Minn.

To Rent—200 acre dairy farm. 27 miles N. W. Chicago, on Higgins road; all under cultivation, good house, barn, silo, and out buildings. Owner J. W. NEWMAN, 74 W. Washington, Chicago.

FARMS WANTED

Farm Wanted—Must be over 240 acres, good buildings and fully stocked. WALTER MILLER, Brumder Bldg., Milwaukee.

WANTED TO RENT

Wanted to rent in March a productive dairy farm. Have the start (14) of a real herd of pure bred Holsteins. Experienced A. R. herdsman and showman. Lack capital. Age 27. ERWIN H. STUCKERT, R. 4, Box 90, Racine, Wis.

Want to hear from owner of good dairy and grain farm for rent. T. C. YOUNG, Washington, Ind.

MACHINERY

Want to Buy a hay bailing press in good condition. Give name, make, model, and year, with price in first letter. BOX 266, care Hoard's Dairyman. 8-*

For Sale—Three unit De Laval Milker used only few months. Cheap. BASIL LAKE, Collierville, Tennessee. 12-2

For Sale—Two single units Hinman Milker, set extra cups complete, used six months. All for $60.00. W. C. HESS, Hebron Nebr.

SALESMEN WANTED

Wanted by Manufacturer—Salesmen who travel through Wisconsin with machine, who sell dairies, farmers and coal mines to sell a staple article for horses, cattle, sheep and hogs. Liberal commission. Great side lines. Pocket sample. References given and required. Address UTILITY SALT CO., INC., Wheeling W. Va.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

TOBACCO

Homespun Tobacco—Chewing, five pounds, $1.75; ten, $3.00; twenty, $5.25. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Ky. 11-4

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50; smoking, 5 lbs., $1.25; ten, $2.00. Pay when received; pipe and recipe freg. FARMERS UNION, Paducah, Ky. 13-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Alfalfa Hay—For sale. Choice pea green second and third cutting. Weights and grades guaranteed. Write for delivered prices. ALBERT MILLER & CO., 192, No. Clark St., Chicago, Illinois. 12-*

Baled Hay and straw for sale. Let us quote you. Prompt service. FRED SEEHAFER & SON, Marshfield, Wis. 13-5

No. 1 mixed timothy on tracks, $13.00 per ton. LAURENCE NEWMAN, Unity, Wis.

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

SILOS

Don't Climb that Silo. W. H. Lambert of Evart, Mich., has invented a gravity feeder for a silo, does away with climbing silo, carrying and rehandling silage. Cost little to build. Write for information.

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 617-1st Ave. No., Minneapolis. 12-19

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Fireman, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?) Railway Association Desk W-5, Brooklyn, N. Y. 12-4

Wanted—Single man, good milker to work on a small dairy farm (Guernseys). Must know how to feed cows. Must be nice, clean fellow. $50.00 per month and a good place. FRED BRANDT, Fennimore, Wisconsin. 12-2

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted—Reliable wholesale dairy route man. State age, wages, experience. Give references. DENMARK GUERNSEY FARMS, Denmark, Iowa.

Wanted—Experienced farm and dairyman, married or single. Good location, good working conditions. References required. State age, size of family and wages. LOCK BOX 541, Pekin, Illinois.

Wanted—A single man to care for pure bred Jersey herd. Must be of good habits, kind to animals and energetic. This is a modern dairy farm with all conveniences; only one half mile from thriving city. Give references and state wages expected. Address BOX 309, care Hoard's Dairyman.

Wanted—On certified farm in Michigan, a middle aged man, good milker and feeder, to care care for dry cows, freshening cows and raise calves; also a dry hand milker for certified barn; a bottling room man who understands automatic filler and copper boiler, ice machine, and sanitary requirements of certified milk production; a man for farm work, good teamster, steady job for right man. Single men, good wages, board and room. Give references and wages expected first letter. Address BOX 308, care Hoard's Dairyman.

Wanted—Manager for large Virginia farm near Richmond who has had experience raising thoroughbred hogs, crop rotation and cattle. Must be married. State wages and experience in first letter. Write LOCK BOX 607, Rock Island, Ill.

HELP WANTED

Wanted—Experienced dairyman. Prefer a middle aged man. 25 cows milking, use Empire milkers. Produce grade A milk. All milk bottled and sold direct to retail trade. J. H. PUTNAM, 116 8th Ave., N. E., Aberdeen, South Dakota.

Southern Wisconsin—Married man, general farm work, dairy. Good milker; all year work. $80 per month. March 1, $90 per month; house, garden, milk daily included. Address BOX 313, care Hoard's Dairyman.

Wanted—First class herdsman, married or single, no children. Must be an expert on showing, caring for and milking, feeding, calf raising and making high records. Holstein herd in Wisconsin. Must furnish references and guarantee of reliability. Position is permanent. State lowest wages. Address JOHN HENRY, General Delivery, Chicago, Ill.

Experienced Herdsman Wanted. State qualifications, salary expected and when available. Address BOX 311, care Hoard's Dairyman.

POSITION WANTED

Wanted by Nov. 1st—Position as manager, by married man, 45, with life time experience in general farming and dairying. Have some help. Am now employed. Address BOX 310, care Hoard's Dairyman.

Single Man, 39, Dane, with 20 years of experience in general farming, wants steady position in Illinois by October 15. Can manage. State wages. HANS PETERSON, Walworth, Wis.

Position Wanted by working dairy farm manager. Hollander, married, age 39, two children. Life experience. No. 1 man in dairy and general farming, familiar with modern machinery, willing to go anywhere, reference. H. DOUWENGA, Sumter, South Carolina.

Swiss man wants position as cow man. Married. A. HANNY, R. 5, Elkhorn, Wis.

Lady wants good place as housekeeper on farm. Address WM. J. EVANS, Rio, Wis.

Farm Manager 30 years old desires to make change. Life experience farming and dairying. Familiar with feeding of dairy cattle and milk production; operation modern farm machinery; handling orchards. Holsteins preferred. Only first class proposition considered. Address BOX 312, care Hoard's Dairyman. UNDER STOCK FOR SALE

Merryman Sale

Merryman's semi-annual sale was held at the Maryland State Fair Pavilion Sept. 15th. Sixty-one head were sold by Auctioneer Bain for a total of $23,015, or an average value of $378. Langwater Shah, a bull calf consigned by Langwater Farm, brought $1,650 and was the highest priced individual. His stablemate, Langwater Collection, brought $1,600.

The high priced cow, Buttercup Ultra Rose, was consigned by Dr. W. E. Gallion. She was purchased by Walter Smedley for $825.

Animals selling for over $400 and their purchasers are as follows:

H. F. Andrus, New York	
Langwater Collection	$1,600
E. M. Benson, Jr., Pennsylvania	
Butter Maid of Oak Hill	$500
Louis C. Emmons, Pennsylvania	
Saugerties Ultra Rose	$725
G. B. Fenwick, Maryland	
Florham Fanny	$485
J. L. Hope, New Jersey	
Rockingham Poppy	$475
Frank Hoen, Maryland	
Dorothy of Medford	$400
Dr. H. L. Johnson, Rhode Island	
Rockingham Lilac	$400
Brookmead's Viola	415
S. R. Nissley, Pennsylvania	
Lot 20, Bull Calf	$510
Jacob Rohrer, Pennsylvania	
Imp. Slogan's Jess of Langwater	$760
Walter Smedley, Pennsylvania	
Lilac Girl	$700
Toots of Guernseydale Farm	460
Buttercup Ultra Rose and calf	825
F. W. Sharp, Virginia	
Langwater Darnley	$500
Joseph Trainer, Pennsylvania	
Southwick Ella Rhee	$600
Virginia Polytechnic Institute, Virginia	
Langwater Squire	$550
Wittig & Drew, Virginia	
Langwater Shah	$1,650

Getting Mules in the Ark

A mule auction took place in a ring enclosure, access to which was by one small gateway, and considerable amusement was caused among the onlookers by the efforts of the men in charge of the animals to get them to go through it. One mule especially seemed obstinately bent on doing anything and everything but pass through that gateway.

"Want any help?" shouted one of the by-standers, as the mule-driver rested a moment.

"No," answered the driver, "but I'd like to know how Noah ever got *two* of these blighters into the ark."
—Everybody's Magazine.

Farm club youngsters grew 23,354 acres of field corn last year with their 17,000 demonstrations under the guidance of county extension agents, according to the U. S. Department of Agriculture.

The Dairy Cattle Congress

(Continued from page 373)

Shady Lane; 4, Martiny on Queen Begonia of Chippewa. Cow 3 years, under 4—1, Reuping on Floridale Merry Maid; 2, Marsh on Peach Blossom of the Prairie; 3, Person on Auricle of Minot; 4, Simon Kruse on May Rose of Clovermead. Heifer 2 years, under 3—1, Marsh on Golden Queen of the Prairie; 2 and 3, Mountain Bros. on Lady's Queen of Iowanola and Cherub's Marigold of Iowanola; 4, Wm. Larsen Canning Co. on Bloom Farm Merry Christmas. Heifer 18 months, under 2 years—1 and 2, Reuping on Gay Girl's Rosamond and Corium Elizabeth's Dolores; 3, Mountain Bros. on Dorothy Ilene of Iowanola; 4, Marsh on Lilac of the Prairie. Heifer not in milk, 1 year, under 18 months—1, Mountain Bros. on Cherub's Pearl of Iowanola; 2, Goodhand Kingston & Son on Muskego Colleen; 3, Reuping on Corium Cherub's Dolla's Erma; 4, Person on Cherub's Bettina of Minot. Heifer under 1 year, bred by exhibitor—1, Wm. Larsen Canning Co. on Danny's Maid of Fern-Dell; 2, Mountain Bros. on Lassie's Fig Tree of Iowanola; 3, Marple Mountain on Cherub's Beautona of Iowanola; 4, Marsh on Sweet May Rose of the Prairie. Cow having official yearly record begun at 5 years or over—1 and 2, Reuping on Polly of Hillsdale and Imp. Valentine of Village View; 3, Wm. Larsen Canning Co. on Flossie Gypson. Cow having official yearly record begun under the age of 5 years—1, 2, and 3, Marsh on Marsh Marigold of the Prairie, Honey Dew of the Prairie and Peach Blossom of the Prairie; 4, Person on May Rose Clara of Minot.

Exhibitor's herd—1 and 4, Rueping; 2, Mountain Bros.; 3, Marsh. Breeder's young herd—1, Reuping; 2, Mountain Bros.; 3, Marsh; 4, Martiny. Breeder's calf herd—1, Mountain Bros.; 2, Marsh; 3, Reuping; 4, Person. Get of sire—1 Marsh on get of Cherub's Prince; 2 and 3, Mountain Bros. on get of Cherub's Winner and Cherub's Challenger; 4, Reuping on get of Cherub's Prince. Produce of cow—1, Marsh on produce of Golden Cherry of Prospect Farm; 2 and 4, Reuping on produce of Nancy's Golden Snowdrop and Erna's Dolla; 3, Kruse on produce of Tree's May Rose of Jean Du Luth. A. R. cow—1, Martiny; 2, Joseph Golinvaux on Cherry of Hightland Farm; 3, Larsen Canning Co. on Flossie Gypson. Dairy herd—1, Marsh; 2, Reuping; 3, Person; 4, Martiny.

Senior and grand champion bull—Corium Princess Carrie's Champion. Junior champion bull—Corium Cherub's Edgar.

Senior and grand champion cow—Honey Bloom of the Prairie. Junior champion heifer—Danny's Maid of Fern-Dell.

New York Dairy Notes

HOARD'S DAIRYMAN:—A year ago low dairymen were scurrying around for new milkers and were paying good prices for them. Now the major portion of the farmers seem to be wondering how they can sell their springers at a fair price. It is true that some of the farmers are asking about cows to buy but these are hesitating and wondering if the price of milk will be high. There seems to be a larger proportion of the cows that are coming fresh in the spring and quite often these are the most popular, although not always so.

Last year at this time milk prices for the fluid markets were well up and believed to be there to stay for the winter. They did not stay. Some got the rather high priced cows and then wished they might get rid of them without considerable loss. Now they wonder if those prices will drop again. Milk may bring around $1.85 for the usual test. There are a few dairymen who get something for their milk. They do not pay any of the costs of maintaining organization, yet they wish to know if the organization will maintain their price and they doubt it somewhat. Last year it was not only the Sheffields but many co-operative milk locals that cut prices as I see it. Now it may be mostly the Sheffields that will have to be watched. The local co-operatives may be trying better to refrain from cuts. We hope so.

Fall feeds are now good and we have a very good crop of cabbage. The crop is so good that the price is almost no good. Five dollars a ton is about all that can be counted on now. For those who have cows and not too many cabbages they can market them at the cow stable to some advantage and they will do so unless there is an ample advance in cabbage prices. Ten dollars a ton is what the men who met in our locality last night thought was the lowest that they would sell for. There are men who will prefer to cash in some cabbage at less than ten dollars I suppose.

League milk for August brought $1.635 after expense deductions for 3% test at 200 miles from the city. As nearly as I can figure, the butter price on the Cornell schedule of computation would bring around $1.40. The fluid price to dealers is $2.60 for September, the same as for late August. It would appear that we cannot count over ten to twenty cents more for the September pool than for August. It looks doubtful if we can reckon on any months more than thirty or forty cents for the pool price above butter values and when we sell fluid milk at $1.20 above the butter price it is dangerously high as competitive conditions are at present. The Sheffields are said to be paying their patrons well above two dollars for this month, and I think fully equalled two dollars last month. Most of the Eastern States locals are now understood to be above the pool. If there were no pool these people would find a low market.

There are probably about nine thousand dairymen who by taking an advantage of the sustained market made by the Dairymen's Leauge without helping to sustain it are getting quite a bit above the amount that the League can pay. Then there are some two thousand of the Eastern States members who get something out of it. The other forty thousand or so outside of any of these groups may not be so far from what the League pays. On that statement it might appear that the organization is not of value. The error of that assumption is that none would get even the present returns were it not for the League association, or at least very few.

New York. H. H. LYON.

Virginia Holstein Champion

Virginia's new champion Holstein cow for one year's production of butter as a junior four-year-old is Van Huff Jewel Buckeye, owned by C. E. Gardner. Her record for this period is 23,064.6 pounds milk containing 801.82 pounds butterfat, equivalent to 1,002.2 pounds butter, according to the Advanced Registry Department of The Holstein-Friesian Association of America.—Extension Service, The Holstein-Friesian Ass'n. of America.

FOR SALE
Modern Demonstration Farm

Board of Education, Independent School District No. 27 will receive sealed bids up to 8:00 p. m. Monday, October 20th, for school farm W½ NW¼-36-56-20. Farm consists of 80 acres of fertile silt loam and peat, 67 of which are under the plow, balance in stump land pasture. Location 13 miles S. E. of Hibbing on gravel road opposite Little Swan Settlement.

THE FARM is splendidly equipped and modern throughout. All buildings are wired in conduit. House, barn and milkhouse piped for water. 3 miles of 4 ft. woven wire fence. 6,000 ft. sub-surface drainage tile.

BUILDINGS: 7 room house (cost $8,000), 36 x 60 basement stock barn, 22 x 36 cement root house, 24 x 76 milkhouse, shop, granary and machine shed, 16 x 80 poultry house, 14 x 14 log ice house, 3, 6 x 12 portable colony houses.

List of machinery etc., to go with farm may be obtained from CLERK OF INDEPENDENT SCHOOL DISTRICT NO. 27, HIBBING, MINN. Purchaser has first opportunity to buy this year's crop at market prices.

Roosevelt Strain MORMON **Silver Foxes**
PROLIFIC BREEDERS
STRONG—HEALTHY
Animals Guaranteed



Largest profit producing live stock in the world. A great many Dairymen already started, large profits with very little additional work. You waste enough every day to feed several pair. Don't hesitate, write today for our catalogue and information, its interesting.
UNITED STATES SILVER FOX FARMS,
302 Star Bldg., Minneapolis, Minn.

HOLSTEINS

Holstein Sale
GRADE and PUREBRED
OCT. 27-28 — Fergus Falls, Minn.
Combining the 3d annual sale of the Charles Wright Company, the 2d annual sale of the Otter Tail County Holstein Breeders' Association and the first annual sale of the Otter Tail Ormsby Breeders' Association.
For Catalogue write
WRIGHT HOLSTEIN FARMS,
Fergus Falls, Minnesota.

Ozaukee County HOLSTEIN SALE!
Including Dispersal of the Cedarburg Canning Co. Herd
OCTOBER 21st — CEDARBURG, WIS.
53 Pure Breds, 35 High Grades
Quite a number of the pure-bred females are bred to a 26-lb. son of S. P. O. M. 37th and a son of Creator.
O. G. CLARK, Auctioneer
For Catalogues write
THEODORE F. WITTENBERG,
Cedarburg, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis
is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

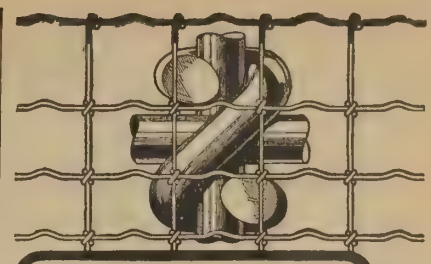
Buy HOLSTEINS in JEFFERSON CO.
1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

Purebred and Grade Holsteins
We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.
DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

BUY YOUR HOLSTEINS
where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.

A YEARLY RECORD HERD
The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.

Rock Co. Holstein Sale
October 29 -- Janesville, Wis.
65 Pure Breds IN A HEATED SALE PAVILION 10 C. T. A. Grades
These cattle have been selected with care. They come from our best herds and are we believe the best lot ever offered at a consignment sale in Rock County. Catalogues ready Oct. 15. Write for yours.
JOHN JONES, Sec., Milton Jct., Wis.



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The Triple Life Wire
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This longer lasting fence is sold at *no extra price*
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. . . STATEMENT OF . . .
The Ownership, Management, Circulation, etc., required by the Act of Congress of Aug. 24, 1912
—OF—

Hoard's Dairyman

Published weekly at Fort Atkinson, Wis., for October 1st, 1924.

State of Wisconsin, County of Jefferson, ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Frank W. Hoard, who, having been duly sworn according to law, deposes and says that he is the General Manager of the Hoard's Dairyman and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher W. D. Hoard & Sons Co. Fort Atkinson, Wis.
Editors A. J. Glover, P. C. Burchard Fort Atkinson, Wis.
Managing Editor A. J. Glover Fort Atkinson, Wis.
Business Manager Frank W. Hoard Fort Atkinson, Wis.

2. That the owners are: W. D. Hoard & Sons Co., Fort Atkinson, Wis.; H. L. Hoard, Fort Atkinson, Wis.; W. D. Hoard, Jr., Fort Atkinson, Wis.; A. R. Hoard, Fort Atkinson, Wis.; A. J. Glover, Fort Atkinson, Wis.; F. W. Hoard, Fort Atkinson, Wis.; G. W. Rankin, Fort Atkinson, Wis.; M. J. Kerschensteiner, Fort Atkinson, Wis.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

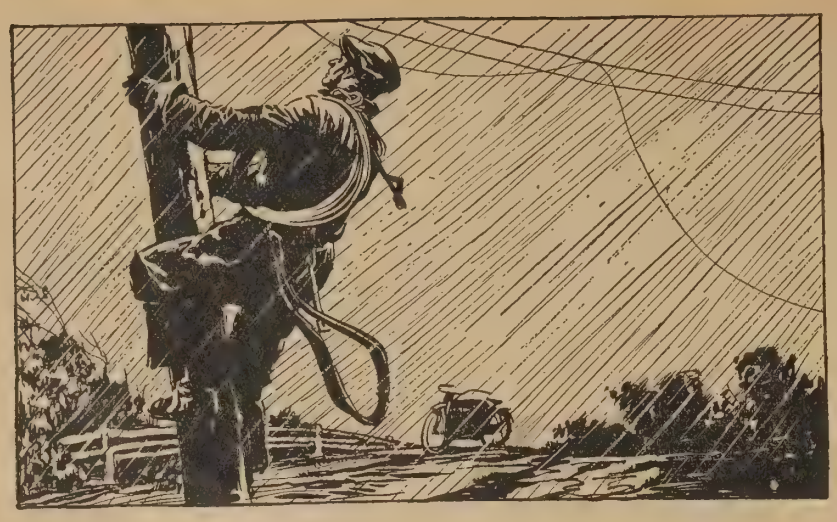
4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

Signed, Frank W. Hoard, General Manager.

Sworn to and subscribed before me this 1st day of October, 1924.

[SEAL] Signed S. R. Jones, Notary Public. (My commission expires Aug. 26, '28)

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.



Keeping the Telephone Alive

Americans have learned to depend on the telephone, in fair weather or in foul, for the usual affairs of the day or for the dire emergency in the dead of night. Its continuous service is taken as a matter of course.

The marvel of it is that the millions of thread-like wires are kept alive and ready to vibrate at one's slightest breath. A few drops of water in a cable, a faulty connection in the wire maze of a switchboard, a violent sleet, rain or wind storm or the mere falling of a branch will often jeopardize the service.

Every channel for the speech currents must be kept electrically intact. The task is as endless as housekeeping. Inspection of apparatus, equipment and all parts of the plant is going on all the time. Wire chiefs at "test boards" locate trouble on the wires though miles away. Repairmen, the "trouble hunters," are at work constantly wherever they are needed in city streets, country roads or in the seldom-trodden trails of the wilderness.

Providing telephone service for this great nation is a huge undertaking. To keep this vast mechanism always electrically alive and dependable is the unending task of tens of thousands of skillful men and women in every state in the Union.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
BELL SYSTEM
One Policy, One System, Universal Service

The WINDMILL with a RECORD



The Auto-oiled Aermotor has behind it 9 years of wonderful success. It is not an experiment.

The Auto-oiled Aermotor is the Genuine Self-Oiling Windmill, with every moving part fully and constantly oiled.

Oil an Aermotor once a year and it is always oiled. It never makes a squeak.

The double gears run in oil in a tightly enclosed gear case. They are always flooded with oil and are protected from dust and sleet.

The Auto-oiled Aermotor is so thoroughly oiled that it runs in the slightest breeze. It gives more service for the money invested than any other piece of machinery on the farm.

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Our large factory and our superior equipment enable us to produce economically and accurately. Every purchaser of an Aermotor gets the benefit from quantity production. The Aermotor is made by a responsible company which has specialized in steel windmills for 36 years.

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FULLER & JOHNSON FARM PUMP ENGINE

This engine is a simple, compact, practical pumping outfit. Comes complete. Easily attached to any pump. Mounts on any well platform. Does not interfere with windmill. No belts; direct connected, enclosed gear drive. Special design, air cooled; won't overheat; can't freeze. Easy to start. Costs so little to perate, it soon pays for itself. Write for free booklet 17A.

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It costs you less to use the best

Use Fuller & Johnson Farm Engines

FITS ANY PUMP AND MAKES IT HUMP

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Ohio	Licking Co.	Aug.	G. J.	69.8	F. Arnold
Ind.	Delaware Co.	"	G. J.	85.4	G. Colson
"	No. Lake Co.	"	G. H.	101.7	T. Neises
Mich.	Manistee 1	"	G. H.	55.7	P. Breen
"	No. Kent	"	G. J.	63.2	J. Hammer
"	No. Eaton	"	R. H.	50.0	J. B. Strange
"	Grass Lake	"	G. H.	65.8	M. L. Noon
"	Cole.-Union	"	R. H.	56.3	G. Schunk
"	Tuscola 1	"	G. H.	54.7	W. D'Arcy
Ore.	Columbia	"	G. H.	77.8	Widmer Bros.
S. D.	Watertown	"	R. H.	56.7	A. J. Brandriet
Calif.	Kern Co.	"	R. H.	76.0	J. L. Sebastin
Iowa	Dubuque 3	"	G. J.	67.3	Knepper & Breitbach
Wis.	Eagle Point	"	G. G.	59.6	L. P. Martiny
"	Rock Elm	"	R. G.	60.2	Wild Bros.
"	River Falls	"	R. H.	69.7	J. Chapman
"	Ells.-Prescott	"	G. H.	60.1	C. Grote
"	Spr. Valley	"	G. G.	70.1	R. Rudesill
"	Maiden Rock	"	G. H.	58.8	G. Miller & Son

Association Notes by Testers

Licking County, Ohio: Pastures are very poor due to lack of rain and all cows are below normal for this season. In August market milk sold for $2.20 per cwt. and retailed at 10 cents per quart. The creamery paid 39c per pound for fat.—J. O. Froelich.

Manistee No. 1, Mich.: This is the first association in this county. One farmer is whitewashing his barn. Two others are putting in new stalls and floors. Many farms have electric lighting plants. Market milk sold for $3.00 per cwt. The creamery paid 34c per pound for fat in August. —J. Mason.

North Kent, Mich.: One milk house was constructed with a cooling system and ventilator. One separator was found to be losing $4.35 each month through poor skimming. One silo was constructed and another repainted. Due to the high cost of grain only 13 members fed grain with pasture. In August market milk sold for $2.30 per cwt. The condensery paid $1.55 for milk and the creamery paid 38c per pound for fat. —H. Hansen.

Grass Lake, Mich.: The first prize awarded by the Michigan Milk Producers' Association was won by this association, it having the most members present at M. A. C. Dairy Day, August 22nd. Thirteen members fed grain, 12 alfalfa, and 5 silage. A herd of 20 head of pure-bred Brown Swiss was purchased by two members. Market milk sold for $1.60 to $2.75 per cwt. The condensery paid $1.60 per cwt., the creamery 47c per pound for fat in August.—R. A. Hubbell.

Coleman Union, Mich.: This association has just completed its first month and every one is well satisfied. All members are pasturing, while four are feeding green corn and seven are feeding grain. Several members are growing alfalfa, while some have new seedings of it this year for the first time. Two or three members have new sweet clover seedings for pasture this fall and next year. The condensery paid $1.70 per cwt. for milk, the creamery 36 to 39 cents per pound for fat in August.—E. G. Witkovsky.

Tuscola No. 1, Mich.: Cows in general are not producing very heavy in August as about 75 per cent of them freshen during the fall months. Silo filling and bean harvesting are going on in full blast. Oats yielded very well in this section; corn and beans only fair. Market milk sold for $1.69—$1.77 per cwt. The condensery paid $1.50 per cwt. and 39 to 41 cents per pound for fat.—E. R. Bruce.

Columbia, Ore.: Farmers are attempting to organize along lines similar to a labor union in an endeavor to force milk prices upward. Nine hundred and four cows were tested, constituting the largest number ever tested in this district. Market milk sold for $2.10 per cwt. and retailed for 10 cents per quart in August.—W. T. Noble.

Eagle Point, Wis.: One new barn and a large machine shed were built. Two barns were whitewashed. One herd was tested for T. B. and 8 reactors found out of 14 cows, so the owner sold the entire herd. The creamery paid 41 cents per pound for fat in August.—Walter Stimm.

Pierce Co., Wis.: There were 1,977 cows tested in the five associations in this county with 123 cows producing 40 lbs. fat or over. Production is dropping off as cows are drying up prior to fall freshening. The creamery paid 36 to 41 cents per pound for fat in August. Silo filling is about two to three weeks later than usual and corn will make fair silage but will be of doubtful value to crib and feed as a concentrate. Federal T. B. testing for accreditation of herds is being done largely among farmers who have been or are now in a cow testing association. The combined annual report of the six associations in Pierce County last year is now out.—C. Engleman.

Minnesota Cow Testers' Meeting

Twenty-seven testers attended the second annual meeting of the Minnesota Cow Testers' Association, held at the University Farm, St. Paul, Minn., September 3rd, 1924. Professor Earl Weaver of the Iowa State College of Agriculture was the principal speaker on an interesting and instructive program.

A short business session followed. The following officers for the coming year were elected: Charles C. Geddes, University Farm, St. Paul, re-elected president; Harry S. White, Houston, vice-president; and R. E. Jensen, Northrup, secretary and treasurer.—R. E. Jensen, Secretary and treasurer.

Connecticut Valley Cows

An average production of 6,068 pounds milk, 260 pounds fat with an income of $65.56 above feed cost is the record of 200 cows in the fourteen herds which completed twelve months testing in the first year of the Connecticut Valley, Vermont, Association.

Of these fourteen herds, nine averaged over 250 pounds of fat per cow the leading herd being the Red Echo Guernsey herd owned by C. D. MacDonald, which made an average production of 7,943 pounds 5.19 per cent milk, 412.5 pounds fat.

That it paid to own high producing cows is shown by the fact that the income above feed cost was nearly three times as great for those which produced from 350 to 400 pounds of fat as it was for those which produced from 150 to 200 pounds fat.

Twenty-seven cows produced over 350 pounds fat and of these ten made over 400 pounds of fat. The high cow of the association, a grade Jersey owned by H. A. Carlton, in ten months produced 14,362 pounds milk, 595.5 pounds fat.

With the same tester and a full membership every indication points to a most promising second year for this association. Edward T. Leavitt, County Agent.

"There be three things that make a nation great and prosperous—a fertile soil, busy workshops, and easy conveyance for men and goods from place to place."—Francis Bacon.

New Life for Light Plants

Replace your worn battery with a UNIVERSAL. There's one to fit *every* make of plant—Delco, Alamo, Genco, Lalley, etc. We make a generous allowance for your old battery.



Sealed Glass Cell

UNIVERSAL "Nu-Seal" cells come to you *fully charged*. Nothing to do but hook up—it's easy and they are ready for a long life of work.

No Cleaning, Ever

Ample space below the plates holds all the sediment till battery is worn out.

There's a UNIVERSAL Battery made for every job requiring a storage battery—Automobiles, Tractors, Radio, Farm Light and Power Plants. They have proven their dependability in over 20 years of service. UNIVERSAL Hard Plates is only *one* reason for their remarkably long, trouble-free life.

A Rechargeable "B" Battery

A new UNIVERSAL "B" Battery for Radio! Now you can be assured of *constant* clear reception, steady voltage, a stronger, more even flow of current. No losing of stations—no fading reception. A full line of "A" Radio Batteries also. Write for catalogs.

FREE BOOKS

on Radio

Write today for your copy of our 16-page instruction booklet on care of "A" and "B" Radio Batteries. The only book of its kind ever published.

on Farm Light

An interesting book, telling how to get best results from your farm light batteries. Every farm light plant owner needs it. It's free. Just ask for it! [733]

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Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments



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Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.

THE H. H. MILLER INDUSTRIES CO.,
CANTON, OHIO
successors to
Mass. Skidd Mfg. Co.
Janesville, Wis.



Pat. 7-2-07 & 9-10-18
ANTI-COW KICKER

Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H. Topeka, Kansas

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

A Tarheel Co-operative Creamery

(Continued from page 363)

gives a pound to each block and pack for shipment.

John A. Arey of the dairy extension force at State College says that this is the only real co-operative creamery in North Carolina. As such it is rendering a maximum of service to the small farmers surrounding Mooresville. The bankers and business men of Mooresville agree that it was the sustaining factor during the days of depression following the war. It sends out its checks big and little all over the territory at the end of each month and these checks have meant much in paying the operating expense of the farm until the big money crops could be harvested and sold.

Each year the creamery stands sponsor for a big community picnic. This year the picnic was held on Thursday, July 31. Between five and six thousand people were present. They all came with well filled baskets and light hearts. A band was hired, with the creamery bearing half the expense. There was speaking in the morning. Following this, the great crowd broke into small groups for lunch. It was an old fashioned picnic, too. Fried chicken, fried ham, sliced boiled ham, sausage, pickles, tomatoes, biscuits, pies, cakes, deviled eggs, and the like were scattered before one in great profusion. Divine grace was invoked, as it had been before the speaking began and the folks urged to help themselves. No second invitation was necessary for the viands were in themselves a sufficient appeal. But there is a limit and soon folks began to break into small groups talking, chatting, and laughing. It was a great gathering of a fine people and they enjoyed themselves thoroughly.

Machine Milking in 1860

That there is "nothing new under the sun", even as to milking machines, is again shown in the following quotation from the Fox Lake (Wisconsin) Gazette of July 26, 1860:

"Among the feats of ingenuity performed by our countrymen is the invention of a machine for milking cows, lately patented, by L. O. Colven of Fallen County in this state. Whoever has read the account given some years since in the Knickerbocker, of the Pentattic Hen Persuader, will find the marvelous properties of that imaginary instrument almost equalled by the real one of which we speak.

"Four sockets receive the four teats of the cow, and the operator seated beside the cow, with the pail between his knees, works two small air pumps, one on each side, which drain the teats by a process like that of nature, drawing out the milk and releasing the teats, alternately, by short intervals of suction. This method has the advantage of the common one in cleanliness, and a still greater advantage in expedition, for it milks three cows at least in the time which would be needed for one if milked by hand.

"A friend who has tried the instrument on his own cows assures us that the experiment was highly satisfactory. The animals did not seem to be incommoded by its operation, or dislike it any more than the usual way."

We have attempted to locate the Mr. Colven spoken of above, but have as yet been unable to do so. There is no "Fallen" County in the United States, and we can only guess that this inventive genius was a resident of New York State. Does anyone know earlier history of the milking machine?



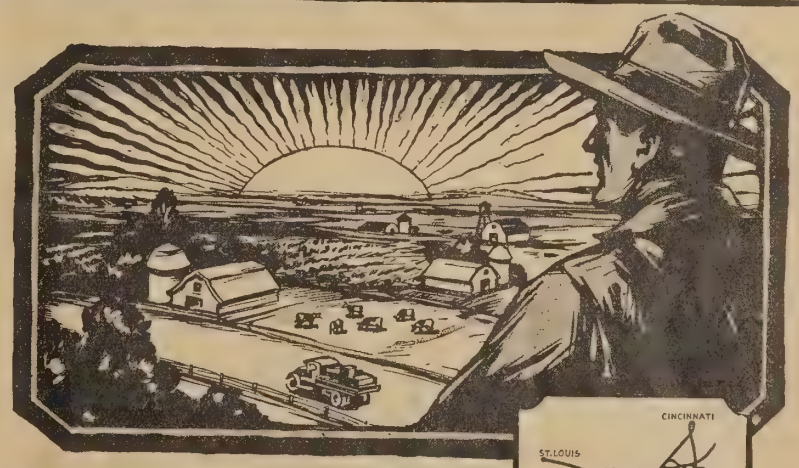
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The "best buy" in building materials. For, combined with just sand, stone or gravel and water, ALPHA CEMENT gives you the most enduring and substantial construction. Nothing to rot, rust, burn or to require painting.

Ask any good contractor. See the local ALPHA Dealer. He is a cement-service man.

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CEMENT



Opportunity Here for YOU!



No section of the country offers the opportunities to dairymen equal to those offered in the South. All over this vast territory, from Kentucky to Louisiana and Florida, there are good farms suitable for dairying—in desirable communities, having good roads, fine schools and nearby markets. These farms can now be bought cheap and, in many instances, on most favorable terms.

Here, available dairy hands can be had at low wages, the mild climate gives green pasturage the year round, thus cutting down stall feeding, and most of the feed stuff required can be raised right on the home farm.

Dairymen in other sections, who are not so well conditioned, will find it to their interest to look into the situation in the South. The L. & N. Railroad will gladly tell you, free of charge, all about the money-making opportunities throughout the territory traversed by the Road. You are invited to write, saying just how you are situated and how you would like to be. Address

G. A. PARK
General Immigration and Industrial Agt.,
Louisville & Nashville Railroad,
Dept. H. D. 16, Louisville, Ky.



THE OLD RELIABLE

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Swollen Parotid Gland

Glands which secrete saliva and discharge it into the mouth to soften the feed and act upon its starchy matters through the influence of an element called *ptyalin,* are located on the throat below the ear and under the lower jaw. These glands frequently become inflamed and swollen from one cause or another. It is quite common for the glands to swell when the animal "catches cold" or has a "sore throat". Such swelling may be mild and comparatively painless, or severe and acutely painful. The latter condition is seen in extensive inflammation of the membranes of the pharynx and larynx, called *laryngo-pharyngitis,* and in a severe attack of influenza. The latter disease is more common in the horse and in that animal an abscess frequently forms in the parotid gland, constituting the condition called *parotitis.* In cows it is also quite common to find the swelling of the parotid gland region due to tuberculosis but in that disease the swelling rarely is hot and sore.

When the swelling comes on gradually, active inflammation apparently is absent and the animal makes a snoring or loud noise in breathing. Tuberculosis is most likely present and the tuberculin test should at once be applied by the veterinarian to decide the matter. In some of the cases of tuberculosis of the part cold abscesses form and pus breaks out or may be liberated by cutting. Such abscesses used to be called "scrofulous" and we have seen many cases of the sort. They are, of course, incurable and affected animals should be destroyed or disposed of in the manner prescribed by state law. When the tuberculin test shows that tuberculosis is not present the veterinarian will make a careful examination for actinomycosis (lump jaw). To determine if that is present he may have to send a sample of pus from the part to the state agricultural experiment station, veterinary department, for laboratory examination. Actinomycosis of the throat usually proves curable by internal treatment with iodide of potash, operative surgery, and external applications of tincture of iodine. Goiter, or enlargement of the thyroid gland, is located much lower than the swellings we have been mentioning here.

When acute inflammation of the parotid gland is ushered in by a chill followed by a high fever and gradual swelling of the gland, on one side of the neck or both, germ infection may be considered the cause. Such a condition is commonly met with in cows and may be termed "mumps". It causes symptoms in every respect comparable to those of mumps in man. The neck is stiff; the swelling intensely sensitive; twisting of the neck (tortcollis) occurs in some cases when one gland is swollen. Swallowing is difficult and for some time may be impossible. Appetite is lost or mastication of feed made difficult so that it stops. Pus tends to form unless preventive treatment is given. Its formation was favored by the application of hot poultices or liquid blisters which used to constitute the treatment. Today it may be aborted by hypodermic treatment with bacterins antagonistic to pus which should at once be instituted by the veterinarian. The swelling should also be painted with tincture of iodine 2 or 3 times daily at first and less often as the swelling abates. Drinking water and sloppy mashes should be allowed.

Mammitis

I have a cow that had milk fever this spring. I called the veterinarian and she was up the next morning. About 10 o'clock a. m. she was down again. I had to call the veterinarian again. Is this often the case with milk fever?

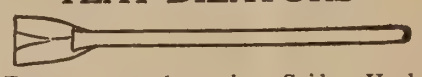
Three months later she came in from the pasture limping in her left hind leg. The front quarter on the left side was swollen very badly. The next morning the rear quarter on the same side was swollen hard as a rock and she dried up her milk at once. She had been giving forty pounds. I called the veterinarian at once. He told me to rub her with hot salt water for a half hour twice daily and he also gave me some salve to rub in. Could you tell me what is wrong with this cow and is there any better treatment?

Springfield, Mo. P. R. W.

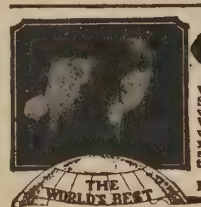
A cow occasionally suffers a relapse after responding to the inflation treatment of her udder for milk. In that event the treatment has to be repeated.

The udder has been invaded by germs (streptococci) causing a serious attack of mammitis or mastitis, popularly called garget. If the udder is still affected there is little chance that it will function normally at a subsequent calving. Strip it clean every two hours during the day, destroy the milk, and in the evening rub in a mixture of equal quantities of camphorated oil, carbolized oil, and compound soap liniment. A veterinarian might do some good by giving hypodermic treatment with mastitis bacterin. Isolate the cow.

MEDICATED WAX TEAT DILATORS



For sore teats, obstructions, Spiders, Hard Milkers, etc. 25c per doz., or 5 doz. for $1.00, postpaid. **MOORE BROS., Dept. H, Albany, N. Y.**



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Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home--joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.

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We Have Revised and Improved Our
VEST POCKET HERD BOOK

The new editions contain numbered and lined pages; and have room for more records and services. We sold hundreds of these leather bound books last year and feel confident that with the small improvements the book will be even more popular. Book will accommodate herd of one hundred head. Complete with pages for full services, gestation tables, index, etc.

PRICE $2.00 *Postpaid*

HOARD'S DAIRYMAN
Fort Atkinson Wisconsin

SALE ANNOUNCEMENTS

Oct. 10—Holsteins. Second Annual Freeborn County Consignment Sale. E. G. Cort, Mgr.
Oct. 11—Holsteins. Clark Co. Holstein Sale at Neilsville, Wis. Jno. Wuethrick, Greenwood, Wis., Sale Mgr.
Oct. 11—Dr. H. P. Fischer Dispersal 75 Holsteins at Shakopee, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13—F. H. Bauer Dispersal 70 head Holsteins at Delano, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 13-14—Holstein Dispersal Sale. Mrs. R. G. Douglas, Shirley Farms, Ft. Logan, Colo.
Oct. 13—Holstein Dispersal. S. W. Huff, Ludingtonville, N. Y. R. Austin Backus, Sale Mgr., Mexico, N. Y.
Oct. 14—Oscar W. Hanson, 65 Holsteins at Withrow, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Sales Managers.
Oct. 14—Holstein Dispersion. W. B. Barney & Sons, Chapin, Iowa.
Oct. 15—Holsteins. C. S. Weldy, Wakarusa, Indiana.
Oct. 15—Jerseys. Dispersal Sale J. R. Woods, Austin, Minn. B. C. Settles, Sale Mgr.
Oct. 15-16—Guernseys. Consignment and Dispersal Sale. Lowell Gable, Paoli, Pa.
Oct. 16—Holsteins. S. C. Heeg & Sons, Howell, Mich. F. J. Fishbeck, Sale Mgr.
Oct. 16—Guernseys. West Salem, Wis. O. G. Clark, West Salem, Wis.
Oct. 16-17—Johnson County Holstein Co. Dispersion Sale, Warrensburg, Mo. J. L. Ferguson, Secretary.
Oct. 17—Bradford County 2nd Annual Registered Jersey Consignment Sale at Troy, Pa.
Oct. 17-18—Holsteins. Dispersal of Daisy Hill Herd, Chagrin Falls, Ohio.
Oct. 21—Guernseys. Goldmead Farm's annual sale of Registered Guernseys at Versailles, O. Spiller & Worch, Owners.
Oct. 21—Holsteins. Washtenaw County Sale, Ann Arbor, Mich. W. L. Spaulding, Sec'y., Chelsea, Mich.
Oct. 21—Holsteins. Ozaukee County Holstein Breeders' Sale, Cedarburg, Wis. Theodore F. Wittenberg, Sale Manager.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Oct. 23—Holsteins. Howell Sales Co., Howell, Mich. Guy Wakefield, Fowlerville, Mich., Sale Manager.
Oct. 24—Holsteins. Dispersion of the Spring Valley Stock Farm herd at Pittsford, Mich. Elisha Bailey & Son, Owners.
Oct. 24—Holsteins. Consignment Sale. R. G. Powell, Sale Mgr., Howell, Mich.
Oct. 27-28—Holsteins. Otter Tail County Sale, Fergus Falls, Minn.
Oct. 28—The Walworth County (Wis.) Holstein Breeders' Association Sale. Ben Bachhuber, Sec'y., Elkhorn, Wis.
Oct. 29—Postponed Sale Montgomery County Holstein Breeders' Ass'n. at Rockville Fair Grounds, Rockville, Md.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 29—The Rock County (Wis.) Holstein Breeders' Ass'n. Sale, Janesville, Wis. John W. Jones, Milton Jct., Wis., Sec'y.
Oct. 29-30—Holsteins. West Salem, Wis. Western Wisconsin Holstein Breeders' Cattle Sales Ass'n. O. G. Clark, Sale Mgr., West Salem, Wis.
Oct. 30—Holsteins. The Stephenson Co. Holstein-Friesian Ass'n., Chas. H. Rosenstiel, Sale Manager.
Oct. 30-31—Holsteins. The Randolph Holstein Association, Randolph, Wis.
Oct. 30-31—Holstein Dispersal Sale. Crozer Dairy Farm, Upland, Pa.
Oct. 31—Holsteins. Enock Carlson, Roberts, Wis.
Nov. 1—Holsteins. Place & Kellogg Dispersal, Dorset, Ohio. Managed by Ohio Holstein-Friesian Association.
Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 3—Jerseys. Barron County Jersey Breeders' Ass'n. Sale at Barron, Wis.
Nov. 4—Walworth Co. Holstein Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 5—Holsteins. Rock Co. Holstein Breeders' Semi-annual Sale at Janesville, Wis. John W. Jones, Sec., Milton, Wis.
Nov. 5—Holstein Dispersal. Robert A. Ryan, R. 2, De Pere, Wis.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.
Nov. 12—Holsteins. District Holstein Sale, Berea, Ohio. Under management Ohio Holstein-Friesian Association.
Nov. 18—Holsteins. Annual Quality Sale. Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Sec'y., Waukesha, Wis.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 25—Holsteins. Dispersal Sale of H. H. & R. C. Walker at Du Quoin State Fair Grounds, Du Quoin, Ill.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.

Can you enjoy a pipe?

Mr. Moxley says he couldn't until he found this tobacco

There are smokers of tobacco in other forms who look with envious eyes on the contented and comfortable pipe-puffer.

For there is an obvious peacefulness about pipe-smoking that rests the nerves and invites the soul to calm and pleasant contemplations.

Millions of men do smoke pipes with undiluted satisfaction. Other thousands try a pipe, get their tongues burned, find the draught too strong, or have some other unhappy experience that discourages them.

Our business, in a word, is to make pipe-smoking pleasant and enjoyable to any man that fancies this mode of tobacco incineration. We strive to do this by providing a tobacco that doesn't bite the tongue, doesn't smoke too strong, doesn't leave an after-taste.

But we'll let Mr. Moxley tell it. Here is what he writes:

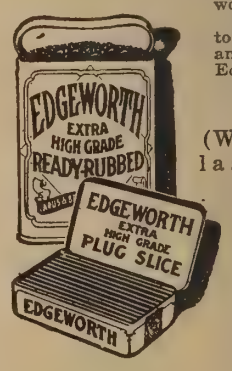
St. Louis, Mo.,
March 10, 1924.

Larus & Bro. Co.
Richmond, Va.
Gentlemen:

Please allow me to say a word of praise for "Edgeworth." Last fall I thought I would try again to smoke a pipe—so I bought a pipe and a can of "Edgeworth" and can say very gladly that so far I have not had any sore tongue nor do I feel any "after-taste" from smoking. This is more important when you take into consideration that heretofore I had been unable to smoke a pipe on account of the sickening sensation I had afterward, but that is gone forever and I for one am truly glad to be able to get the one good smoke, "Edgeworth".

Give my regards to Mr. Joe Rivers and Mr. James Edmund.

(signed)
Al J. Moxley.



(We infer from the last paragraph of Mr. Moxley's letter that the good lodge brothers Rivers and Edmund are credited with giving him the real inside stuff on Edgeworth. Our acknowledgements to them.)

Let us send you free samples of Edgeworth so that you may prove out all the virtues that its smokers claim for it. If you like it, so much the better for us both. If you don't—well, that's *that!*

Write your name and address to Larus & Brother Company, 57 South 21st Street, Richmond, Va.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound and also in several handy in-between sizes.

We'll be grateful for the name and address of your tobacco dealer, too, if you care to add them.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Ready-Rubbed for the same price you would pay the jobber.

POULTRY On The DAIRY FARM



J. B. HAYES

Fall Suggestions

During the lull that should result during the time between threshing and silo filling, one should devote some attention to the poultry house in anticipation of the fall move. Except on the rare occasions when a poultry meeting is held on a farm, the farm poultry house is a rather neglected article that is allowed to remain as it is until a more opportune time arrives. The unfortunate part of that policy results from the time being postponed from day to day until winter approaches and one is unprepared. A shortage of about one million cases of eggs in storage this year is ample proof that prevailing high feed prices will not be an obstacle in the way of satisfactory returns from the flock.

All predictions seem to show that the unsatisfactory spring has also resulted in a higher mortality in the chicks which will mean a smaller per cent of well matured pullets. From limited personal observations, this fact does not seem to be supported for the number of pullets now on farms seems to be normal. If there are fewer pullets, an early winter egg production will be smaller and prices proportionately higher. Pullets are the source of late fall and early winter production until the hens have completed their molt.

First and foremost in considering the house should be the removal of all unnecessary equipment that clutters the floor. In certain instances enough pots and pans have been seen in houses that varied in size from big iron kettles to sauce pans and in sufficient number to serve as individual drinking cups for each bird in the flock. By the time that all this material was distributed there was no room left for the flock to exercise. One water stand with a vessel of sufficient size is adequate for any flock.

If open roosts that reach from the center of the house to the top of the rear wall are now in use, they should be removed and replaced by a dropping board table and horizontal roosts. In too many cases production may be hindered by the fighting, crowding, and falling that results from the other type. As a second reason, one will find that too much floor space is not available for the flock unless dropping boards are used. Every part of the house should be utilized to the greatest extent.

Dilapidated wooden boxes that were used as temporary nests will make excellent kindling for next winter. The construction of nests in tiers renders cleaning more easy, aids in the regular collection of eggs, and is a big help in the constant warfare against mites. The application of a wood preservative such as carbolineum or waste crank case oil will aid in his fight and also improves the sanitary conditions. All nests should be ranked along the end wall.

Plans are available from numerous sources for the construction of a good dry mash hopper. Working for economical egg production without a dry mash constantly before the flock is like trying to run an auto without gas. Not much success will be attained in either instance. That point is illustrated daily at this season in the culling of farm flocks.

A concrete floor makes house cleaning an easier job. All of the accumulated debris from last winter and the entire summer should be scraped from the floor and followed with an application of some good disinfectant. In those cases where one has a sand or gravel floor, the top six inches should be removed and fresh material hauled in to replace it. The top of the floor should be flush with the wall and above the level of the ground surrounding the house. During a year the dirt floor becomes badly contaminated and possibly infected.

The ceiling and walls should be swept and a good whitewash applied with a spray pump. This is particularly true in older buildings when the boards have become darker. Whitewash can brighten the interior of the coop and seems to react favorably on the flock.

All of the windows need washing and all missing panes should be replaced. Most of the sunlight must be obtained through the glass and the accumulation of years of dirt can act as a successful barrier. The warm fall days are better suited to that work than cold, miserable days in November.

About six inches of fresh, clean straw on the floor gives the finishing touch to a properly equipped house. Too much straw may be as unsatisfactory as none at all. We are anxious to have a flock exercise in getting their feed but we do not want them to starve while attempting to move loads of litter in their search. Clean straw is preferable to dry leaves or similar material because it will not need replenishing as quickly.

There is nothing that is quite as pleasing or radiates as much hustling activity as a poultry house that has been properly prepared and houses the correct number of well developed pullets. Just the satisfaction of ownership is part payment for the effort expended aside from the profit that will accrue from their proper management through the year. Pullets represent an investment at this time that demand the completion of the job before they become a profit paying business.

Bulletins of the Week

Successful Home Canning and Jelly Making, by Abby L. Marlatt and Bernice Dodge. Circular 176, University of Wisconsin, Madison, Wis.

Rural Religious Organizations, by J. H. Kolb and C. J. Bornman. Research Bulletin 60, Wisconsin Experiment Station, Madison, Wisconsin.

Tuberculosis of Fowls, by R. Graham and E. A. Tunnicliff. Circular 285, Illinois Experiment Station, Urbana, Ill.

The Story of the Babcock Test, by J. L. Sammis. Circular 172, Wisconsin Experiment Station, Madison, Wis.

A Comparison of Holstein-Friesian Sires, by C. W. Turner and A. C. Ragsdale. Bulletin 217, Missouri Experiment Station, Columbia, Mo.

Spacing of Potato Hills, by B. A. Brown. Bulletin 119, Storrs Experiment Station, Storrs, Conn.

OUR MUTUAL INTERESTS

This is an unusual year in the butter business.

Government reports show that the present holdings of butter in the United States are nearly 54 million pounds greater than the holdings in September, 1923. Besides this surplus, the daily make is very heavy, and butter is constantly piling up in all the great markets of the country.

Abundant rains—rich pastures—and large increases in the number of milch cows—have combined to produce butter in extraordinary quantities.

While you are striving toward the better production, handling and delivering of cream, our members face the serious problem of selling what you produce.

The situation therefore involves a mutual obligation. Producers must keep up the quality, while we must bend every effort to distribute the large yield.

This Exchange does not handle butter and eggs, but its members deal in them in wholesale lots for both immediate and future delivery. The one purpose of the Exchange as such is to improve marketing conditions, and a branch of our task is to increase consumer outlets.

We will do our best to induce the people in the cities to eat more butter and it is up to you to see that the country consumption of good butter, not substitutes, increases in like proportion. This is for your benefit as well as ours, and we are glad to have a part in serving an industry which gives to the people its *finest food.*

Chicago Mercantile Exchange

LA SALLE ST. at LAKE ST.

The Market Place for Butter and Eggs

More Milk—More Beef



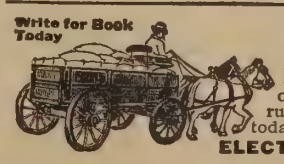
Feed Home-Grown Crops

Stop that monthly feed bill. The Letz Dixie will cut, grind and mix anything grown—makes a perfectly balanced ration from home-grown crops. Guaranteed to increase production from 15 to 30% and cut feeding costs 25 to 50%. A warehouse in every state.

Write for copy of new Letz Feeding Manual describing Letz System of Home Crop Feeding. A valuable addition to your library.

LETZ *America's Leading Feed Mill*

1011 East Road
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FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Steel or wood wheels to fit any running gear. Wagon parts of all kinds. Write today for free catalog illustrated in colors.

ELECTRIC WHEEL CO., 31 Elm Street, Quincy, Ill.

When Writing to Advertisers, Please Mention Hoard's Dairyman

From Scrubs to Pure-breds in Canada

(Continued from page 361)

butter in seven days, and 3,437 lbs. milk and 150.7 lbs. butter in thirty days. Her best day's production was 133 lbs. milk and she averaged 114.5 lbs. per day for thirty days. During the same time her old mother made a seven-day record of 594.5 lbs. milk and 28.82 lbs. butter at eleven years of age.

The Feeding of the Herd

The feeding of any herd has a great deal to do with the production of the cows. Reports of cow test associations contain many examples of what good feeding can do to increase production. No cow should be condemned until she has had a chance to prove what she can do on an adequate ration. We do a lot of talking about the 4,000-pound cow but, as I heard one well known young Canadian Holstein breeder remark, we should get after the 4,000-pound man.

Mr. Wait has long realized that it pays well to feed well and also according to production. Nearly all the feed is home grown. There are two silos on the farm which are filled to the top every fall with corn. Along with the silage is fed alfalfa and clover hay and sometimes sweet clover hay. Mr. Wait was one of the first men to grow sweet clover in that particular district and has used it for many years both as a pasture crop and as a hay crop with excellent results. At the time of my visit the grain ration consisted of 100 lbs. each of bran, shorts, oat chop, wheat screenings, and 30 lbs. of oil meal. This ration was fed at the rate of one pound grain to about four pounds of milk. The cows get about 30 lbs. of silage and 12 lbs. of hay a day, fed morning and evening. At noon the cows are given access to straw, the remainder of which is used as bedding at night.

Although the barn is not a fancy or expensive building the cows are clean and comfortably stabled. Water bowls have been installed and lots of good, pure water is always available. Labor saving devices such as a litter carrier and feed carrier make the work of looking after the herd easier. Mr. Wait milks with a machine and so far it has given satisfaction and there has been no udder trouble due to the milker.

As Mr. Wait does not depend on high prices for breeding stock, the herd is handled on a production basis. The cows are only milked twice a day and the general policy is to have them all freshen within the year. The milk is shipped to Toronto and the supply is therefore fairly even during the whole year.

The Sires of the Herd

Even before milk records had been kept the pure-bred sire had been introduced, and the splendid results obtained have been largely due to the use of pure-bred blood. Mr. Wait was never able to purchase the real high priced stock, but he was always careful to select as good a bull as possible with milk and fat records behind him. By buying when the animals were young, several very well bred bulls of the May Echo Sylvia strain have been used.

Mr. Wait in improving his own herd has helped the community in which he lives. His success has been a striking example to the neighboring farmers. He has sold young bulls from his best cows at ridiculously low prices so that the owners of grade herds might have the benefit, and some very good young heifers have been placed in other herds. He has also endeavored to have the farmers buy their feed co-operatively, and is a director of the fruit growers' association.

Cow testing work could not have a stronger or abler supporter and the history of the improvement of this herd shows the value of a well defined policy of careful selection of the females, pure-bred sires, and good feeding. Although it is not possible to tell definitely to what extent each of these phases of good dairy management has contributed to the improvement, one thing is certain and that is that no definite policy would have been possible without the information made available through the records.

Men of this type, with a vision of the possibilities that can be attained in herd improvement, and who have the determination and perseverance to stay with the job until they reach the standard that they have set for themselves, are a credit to the community, the dairy industry, and the breed they represent. May their tribe increase.

Massachusetts Ayrshire New World's Champion

Names of registered dairy cows do not always denote more than a particular line of breeding, or a trade mark of the farm from which they come. In the case of the Ayrshire owned by Alta Crest Farms of Massachusetts, it seems that the person naming the cow, Alta Crest Destiny, had a glimpse into the future for she now holds the world's championship of the junior three-year-old class of the Roll of Honor. In 300 days she has made 13,068 lbs. of 4.47% milk, 584.44 lbs. of butterfat; dropping a live calf which she carried 211 days of this period. Thus she is awarded one of the Ayrshire Breeders' Association's medals.—Ayrshire Breeders' Association.

Wisconsin Cheesemakers' Report

The annual report of the Wisconsin Cheesemakers' Association is just off the press. It contains the full report of the last convention, including the constitution, by-laws, resolutions adopted, talks and papers, and reports from county associations throughout the state.

Every Wisconsin cheesemaker should have a copy. Any maker who was not a paid-up member last January can get a copy of this report by sending $1.00 to the secretary's office, Madison, for annual dues to the Wisconsin Cheesemakers' Association. The next convention will be held Dec. 10-11-12, 1924, at Milwaukee.

J. L. SAMMIS, Sec.

LEARN AUCTIONEERING
at World's Greatest School. Term opens Dec. 1st. Students have advantage of International Live Stock show for Stock Judging. Write today for large, free catalog.
JONES NAT'L. SCHOOL OF AUCTIONEERING, 38 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

AYRSHIRES

Accredited Ayrshires
Good type and production are found in our herd. A special price on young stock. Write for prices.
W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering
BULL BORN APRIL 18, 1924
Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.
Herd Federally Accredited—Certificate No. 10241.
Price: $125.00
GLEN FOERD FARMS, Torresdale, Pennsylvania.

FOR SALE
Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

High Producing Ayrshires
AT FARMERS' PRICES
Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.
CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

Ayrcroft Farm Ayrshires
Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.
B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale
Accredited herd No. 62105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.
Wm. NISBET & SONS, Richland Center, Wis.

SWINE

HAMPSHIRES
Spring Pigs $20 each—$37.50 per pair. From Famous LOOK-O U T-WICKWARE Bloodlines. Either Sex. Cholera Immuned. Bred Sows and Gilts for September Farrow. Write for further information.

WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

BROWN SWISS

ANNOUNCEMENT
KINNELON FARMS, owned jointly by Warren & Morris Kinney and for thirty-four years the home of pure-bred Brown Swiss cattle, announces herewith a reorganization, change of name, ownership and location.
The entire herd was moved during the month of August, to Lees' Hill Farm, at New Vernon, N. J., with Post Office at Morristown, and will be known henceforth as the Lees' Hill Farm herd. Mr. and Mrs. Warren Kinney are the new owners, Morris Kinney having recently sold out his interest to them.
The management will be the same as heretofore and a constructive breeding plan for the improvement of type and production will be carried on. Brown Swiss breeders are urged to associate the name "Lees' Hill" with "Kinnelon". It means the same blood, backed by the same high records, and under the same intelligent management.
Herd fully accredited, Certificate number 65301
LEES' HILL FARM, New Vernon, N. J.
P. O. Morristown
MR. AND MRS. WARREN KINNEY, Owners
HARRY KROEMMELHEIM, Herdsman

JERSEYS

"Just Jerseys"
Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.
The Oaklands, R. 5, Ann Arbor, Mich.

For Sale
REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.
My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.
D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS
Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

Name Your Own Price!
We Have a
JERSEY BULL CALF for You
BE REASONABLE!
INDERKILL FARM, Staatsburg, N. Y.

World's Championship Blood FOR SALE

Raleigh's Torono Rex 223582
The three-quarters brother to Raleigh's Torono's Meme, World's Champion Jr. 2-yr.-old Jersey, sired by Raleigh's Torono, a Silver Medal bull with over 30 in the R. O. M. If you are not in the 50-lb. list, you need him. Write us for pedigree and full particulars. Herd Federal Accredited.
SHERMAN JERSEY FARM
CHARLES CITY, IOWA

4 Good Bulls
ALSO HIGH CLASS FEMALES for sale. The bulls are from 1 to 2 years old, ready for heavy service. They are of Oxford Lad and Golden Fern's Lad breeding. Show prospects. The females are exceptionally good ones. Prices are very reasonable. The herd is accredited.
W. C. BROOKOVER, Chandlersville, Ohio

POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

CEDAR CREST FARMS
FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.
J. K. DERING, Owner,
Lake Villa, Illinois

Belswood Farm Jerseys
Four choice bulls, 5 to 12 months of age, all out of Register of Merit dams. Accredited herd.
A. F. BLOCK, Mgr. Norwood Park, Ill.

6 JERSEY BULLS
2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age
and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Valley Farm
is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibley Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.


Edgerstoune's Luxury Bond
Born Aug. 10, 1923

Edgerstoune's Luxury Bond
A Promising Young Bull For Sale
His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.
EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

Jersey Bull Calves
We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

GUERNSEYS

150 GUERNSEYS

O. G. CLARK & CO.

Will sell at

West Salem, Wis.

Thursday, Oct. 16th

150 High Grade Springing Guernseys, Cows, and Heifers—

All the offering is young, big and sound, a few fresh, balance soon due. Everything tuberculin tested. West Salem is easy to reach and easy to ship from. Attend this sale.

O. G. CLARK, Mgr.
West Salem Wisconsin

We Have Sold 20 HEAD to Lowell Gable, at Paoli, Penn.

This lot consists of one young bull and the remainder females. A majority of the latter are good milk cows and they are bred to Emmadine's great herd sires. ALL OF THESE ANIMALS WILL BE IN THE LOWELL GABLE SALE OCT. 15TH.

EMMADINE FARM
Hopewell Jct., N. Y.
J. C. Penney, Owner, Jimmy Dodge, Mgr.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. at in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO

For prices and information, write
A. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

A. S. PERSON, Minot, N. D.

A Four Pine Farm Bull For Sale



KING'S ALICE

Peerless of Four Pine 98007 — King's Eminence of Four Pine 89389 — King of Chilmark 20-798, 27 A. R. daughters. Lilyett 33416, 431 G; 590 A; 703 A; 2 A. R. daughters.

King's Alice of Four Pine 93106, 535 FF — King of Chilmark 20798; 27 A. R. dtrs. Friquet of the Prairie 54717, 392 E 2 A. R. daughters

PRICE $200.00

F. K. BABSON - - HINSDALE, ILLINOIS

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

CORIUM FARM GUERNSEYS

Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

---

50 GRADE HEIFERS---Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.

A Federal Accredited Herd

Dams Have 700 lbs. Fat

A yearling GUERNSEY BULL FOR SALE, each of two nearest dams having over 700 lbs. fat. From a Cherub sire. Herd Federally Accredited.

University of Wisconsin
DEPARTMENT OF ANIMAL HUSBANDRY
MADISON - WISCONSIN

—Registered— Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.

RICHARD F. KLEMM, Baraboo, Wisconsin.

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary. Waukesha, Wis.

HELENDALE GUERNSEYS

FOR SALE: Several good typy registered females at very moderate prices, also some young bulls.

WM. A. ERBACH, Athens, Wisconsin

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

DOES YOUR BULL SIRE

PRODUCTION?
STRONG BACKS?
LEVEL RUMPS?
LONG UDDERS?
DEEP BODIES?

A son of Anton's King Confidence 43517, or Bonanza of K. P. 62518, will place these characteristics in your herd. Write for prices and descriptions.

(*Federal Accredited Herd*)

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

WOODEND FARM GUERNSEYS

BREEDING STOCK FOR SALE, May Rose blood. A few females with records over 600 lbs. fat. 6 bulls, 2 of serviceable age. All out of A. R. dams. Animals T. B. tested and guaranteed breeders. Prices right.

R A. LAMBERT, MGR., MOUND, MINN.

Thorn Hill Farm Guernseys



Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

HOLSTEINS

COMPLETE DISPERSAL SALE!

Colorado's Greatest Record Herd Is to be Sold on

OCTOBER 13-14

140 REGISTERED HOLSTEINS

including 1 former World Record cow—her 2 daughters and her son—5 daughters of 1000-lb. cows; 12 daughters of over 30-lb. cows; 12 Colorado State Record cows and their daughters; 23 daughters of Johan Duchess De Kol Lad—Colorado's greatest bull.

This herd passed 100% clear on Federal Test, Sept. 3, 1924.

MRS. R. G. DOUGLAS, *Shirley Farms*
FT. LOGAN, COLORADO
8 miles southwest of Denver

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.

BULL CALF BORN JAN. 17, 1924

Well marked. Sire: "Chief Korndyke Johanna Ormsby" whose seven nearest dams average over 1000 lbs. butter in a year. Dam: "Miss De Kol Rue". Now on semi test. Her dam, 682 lbs. butter, 305 days, she from a 1037-lb. butter cow.

PRICE $125. *Pedigree and photo*

KEWAYDIN FARMS, R. 1
J. A. Schmidt & Sons, Ladysmith, Wis.

— PUREBRED —

HOLSTEIN HEIFERS

25 HEAD pure-bred heifers, 2 and 3 years old, bred to a 29-lb. bull. Due in November. Priced right for immediate sale.

RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y., Randolph, Wis.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.

---

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

RIVER MEADOW FARMS, Portlandville, N. Y.

36-lb. Breeding

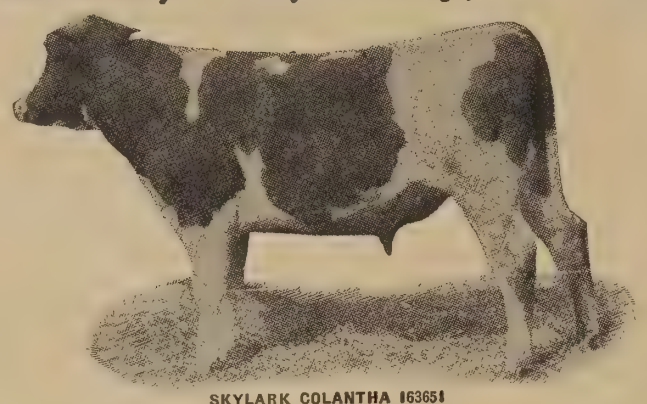
back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

Enoch Carlson Dispersal Sale

Roberts, Wis., Friday, Oct. 31



SKYLARK COLANTHA 163651

40 HEAD REGISTERED HOLSTEINS 40

33 FEMALES—Several cows due before sale. Balance are due by Dec. 1st. **7 MALES**—Including the herd sire Sir Korndyke Fytje Pietertje 16th, 3 of his sons ready for service; 1 yearling, sire a son of Piebe Laura Ollie Homestead King and out of an 18-lb. 3-year-old granddaughter of Colantha Johanna Lad. An outstanding individual. Every animal except herd sire and 3 cows were bred on the farm.

A REAL HERD to select your foundation cattle, from sires we have been using as follows:

DUKE PIETERTJE DEANE NO. 97972—Took first prize at New York and Connecticut State Fairs year 1913.

SKYLARK COLANTHA NO. 163651—First prize at Iowa, Nebraska and Kansas State Fairs; 2nd at Waterloo, Iowa, 1916.

SIR KORNDYKE FYTJE PIETERTJE 16TH NO. 245555.. This bull has never been shown. He is breeding some very outstanding individuals.

This herd has always been clean, free from abortion and tuberculosis. Herd passed last clean T. B. test on Sept. 6th. Will be sold subject to 60 or 90 days' retest. Sale will be held in tent at the farm 1 mile north of Roberts. Will meet all trains the day of sale.

Auctioneer—Col. Fred Reppert, Decatur, Ind. Sale Mgr.—Frank H. Everson, Lake Mills, Wis.

For Catalog write ENOCH CARLSON, Roberts, Wis.

---

300 **300**

HOLSTEINS

THE WESTERN WISCONSIN HOLSTEIN BREEDERS' CATTLE SALES ASSOCIATION Announces the LARGEST PUBLIC SALE of Registered Holstein-Friesian Cattle in the World. SALE TO BE HELD AT

West Salem, Wis.
Wed. and Thurs., Oct. 29-30

300 head consigned by the leading breeders of Holstein cattle from 30 counties in Western Wisconsin. All cattle selected by a sale committee appointed to secure only the most desirable animals.

The greatest opportunity you ever had to buy one animal or a carload of cows, heifers or bulls that are bred right, developed right and are choice individuals. Don't fail to attend this sale.

For further information, address

O. G. CLARK, Sale Manager

West Salem **Wisconsin**

BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS **Davenport, Iowa**

--- TO REMIND YOU OF ---

The Home Farm Dispersion

At the Farm --- TUESDAY, OCTOBER 14th

Including the highest record cow ever sold in Iowa.
You are cordially invited to be with us.

W. B. BARNEY & SONS, **Chapin, Iowa**

Before You Buy A Bull !

Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms

(In Waukesha County)

F. J. Southcott, Manager, Dousman, Wis.

Clean herd under State and Federal Supervision

Bargains in Registered HOLSTEIN BULLS--- all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.

Hargrove & Arnold, **Norwalk, Ia.**

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

Fond du Lac Co. Holstein Association

OFFERS GOOD HOLSTEINS

both pure-breds and grades from clean herds. If you want cows, bulls or calves for calf club work we can supply your order up to several car loads. Our prices are very reasonable.

CARL BRUGGER, Sec., Fond du Lac, Wis.

Green County Holtsein Breeders' Association

Can furnish Holsteins. Choice grades and pure-breds, all ages, any number. Bulls of serviceable age. Calves for calf clubs. Reasonable prices.

J. W. KEATING, Sec'y, Monroe, Wis.

Ormsby-Homestead

HEIFERS and BULLS

FOR SALE

Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

A Clean Herd
Under Federal Supervision

MILFORD MEADOWS STOCK FARM
J. C. CORT, Mgr., LAKE MILLS, WIS.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. **28 REGISTERED HEIFER CALVES,** sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes,** a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby,** a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

Ollie-Ormsby

Bull born Nov. 19, 1923. Ready for service. Sire—Sir Ollie Mooie Watson, 36-lb. son of Iowana Sir Ollie. Dam—24-lb. granddaughter of Pietertje Maid Ormsby now on year test. Bull is two-thirds dark, a good individual and reasonably priced. Write or visit us.

WALCOWIS FARMS **Lake Geneva, Wis.**

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

FOR $100—Grandson of Sir P. O. M. 37th

Dam's cow testing association record 351 lbs. fat as a junior two year old in 10 mo. Grandam official record 700 lbs. butter 305 days at 10 years. Born March 6, 1924.

B. A. NORRIS, **ANOKA, MINN.**



This Handsome Bull For Sale--$400

Six nearest dams average 1,007 lbs. butter in a year

Sire, **SIR WALKER SEGIS HOMESTEAD,** a show bull (31 A. R. O. daughters), a "PIEBE" son from a 1,230-lb. (former world champion) daughter of "COUNT".

Dam, **MARIE PONTIAC PRIDE,** 745 lbs. butter in 365 days as a junior two-year-old, while her dam made 1,016 lbs. butter as a four-year-old.

A TOP-NOTCH INDIVIDUAL WITH A SPLENDID PEDIGREE. Born August 26, 1923. Send for pedigree and photo.

A. J. LASHBROOK **Northfield, Minnesota**

A Very Good Bull For Sale

7-DAY AND YEARLY RECORDS—INDIVIDUALITY

CARLETON SILVER BOW is a young bull we know will suit you. He was born Dec. 11, 1923. His dam, a daughter of Count King, produced 27 lbs. butter in 7 days and 917.68 lbs. in a year. His sire, Colonel Abbekerk Pontiac Segis, a son of Count, is from a 34 lb. 1,227 lb. dam. His two nearest dams average 31 lbs. in 7 days, 1,072 lbs. in a year.

He Is Priced To Sell. Write Today For Price, Pedigree, Etc.

CARLETON COLLEGE FARMS. **Federal Accredited Herd** **NORTHFIELD, MINN.**

Improve Your Dairy Herd With Daisy Hill Blood---

DAISY HILL FARMS bred and developed more of the great producing Holsteins of the past year than any other Ohio breeder.

These great producers, with their daughters, granddaughters and great granddaughters,

Will be Sold in the

Daisy Hill Dispersal

At the Farm **OCT. 17-18** **At the Farm**

110 PUREBRED HOLSTEINS

INCLUDING

Two 1100-lb. cows with twelve female descendants of each.

An Ohio State Champion heifer, with her daughter and her dam.

A 1200-lb. cow and her family.
Two sons of a twice 1200-lb. cow.

32 daughters of Iowana Colantha Burke Fayne. Some of them have good records and all with perfect udders.

For the past nine years a supervisor has been constantly on the job and every cow has been tested at every freshening.

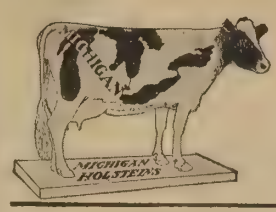
A Clean Herd Under Federal Supervision for years with more than half a dozen tests 100% Clean. Another test will be made before sale. A SAFE PLACE TO BUY BIG PRODUCING HOLSTEINS. SPECIAL ATTENTION HAS BEEN PAID TO TYPE.

Write for Catalog—Now Ready

DAISY HILL FARMS

Jas. A. Reynolds, CHAGRIN FALLS, OHIO

Buy Michigan Holsteins!



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several carloads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

Michigan Holstein-Friesian Association
East Lansing - - Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

Livingston County Sales

C. T. A. SALE—30 HEAD above 300 lbs. fat. One of our leading herds will be dispersed—30 lb. cows, heifers, a 36 lb. bull, 2 consignment sales with high record cows. Our County is free from T. B. It has the world's greatest bull Ass'n. As many Holsteins as any county of its size in U. S. Come to Livingston County for Holsteins.

LIVINGSTON CO. HOLSTIEN-FRIESIAN ASS'N.
BURR J. HOOVER, Sec., HOWELL, MICH.

A 30-lb. Bull

At a Bargain Price

King Pontiac Segis Lad De Kol 3d is 2 years old and the sire of some very promising calves. He was second among 25 calves at the 1922 Michigan State Fair and this year he was a prize winner as a 2-yr.-old. His dam made 30 lbs. butter from 700 lbs. milk in 7 days and his sire is a son of Sadie Gerben Hengerveld De Kol, 40 lbs. butter, 782 lbs. milk in 7 days, 157 lbs. butter, 3465 lbs. milk in 30 days. Sold subject to 60-day retest guarantee. Write today.

BAYNEWOOD FARMS, Romeo, Michigan

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

Marathon Bess Burke 32d

Junior Sire in the Traverse City State Hospital Herd

His dam, Wisconsin Fobes 6th, topped the Erickson Dispersion Sale at $6,800. As a Sr. 4-yr.-old she made 857.59 lbs. butter and 21,052.7 lbs. milk in 305 days. Her best 7-day record is 34.47 lbs. butter and 636.5 lbs. milk and she is now on yearly test with prospect of a large record.

His seven nearest dams average 1108.21 lbs. butter and 24,096.6 lbs. milk.

His pedigree combines type and production in a remarkable degree and his first calves are due soon.

Let us book your order for one of these bulls from a good A. R. O. dam.

Send for our list of Bulls for sale by Michigan State Herds

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

100 to 500 HEAD of GRADE Guernseys and Holsteins For Sale

These cows are close springers, tuberculin tested, with lots of size and quality, and ready for interstate shipment. Write or wire for information. Address all inquiries to

O. G. CLARK & CO., West Salem, Wis.

—ABSOLUTE— DISPERSAL SALE

140 Registered Holsteins

Foundation cows from Wisconsin and New York. Herd sires from Fred Pabst and Harrove & Arnold. Large production. Excellent type.

OCT. 16-17, WARRENSBURG, MO.

For catalog write

JOHNSON COUNTY HOLSTEIN CO., J. L. Ferguson, Sec'y

HERD SIRE FOR SALE

Robst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

CONSIGNMENT SALE!

Of Cow Testing Ass'n Yearly-Record HOLSTEINS

FRIDAY, OCTOBER 24th

50 Head Purebred and Grade Females -- 5 Head Purebred Holstein Males --- One Purebred Guernsey Sire, ready for service

Every animal consigned has either herself, or has a dam that has made the requirements established by the National Dairy Show, in yearly butterfat production. The young sires consigned all have dams that have produced more than 400 lbs. of butterfat per year, some having made these records in heifer form.

All animals consigned will be T. B. tested previous to the sale and sold subject to the 60-day retest privilege. Don't forget Livingston Co. is a T. B. modified accredited County.

All records made have been made under the supervision of the Dairy Department of the Michigan Agricultural College.

This is a rare opportunity for farmers to get started with foundation stock that has proven their value as producers.

For further information and catalog, write

R. G. POWELL, Sales Mgr., Howell, Mich.

Eleventh Annual

PUBLIC SALE!

Howell Sales Company of Livingston County

THURS., OCT. 23rd

80 Head Registered Holstein Cattle
65 Cows Fresh or Due Soon

HOWELL, MICHIGAN

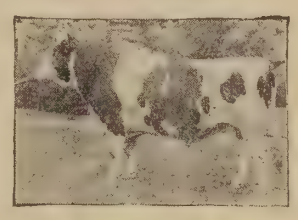
Sales Pavilion, Fair Grounds.
Whole County Accredited.

For Catalogs, Address
GUY WAKEFIELD, Fowlerville, Mich.

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



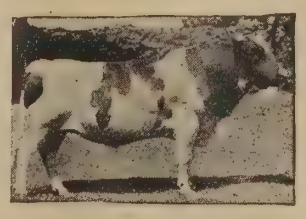
We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Walters, Owner, GRAND RAPIDS, MICH.

Spring Valley Farms Dispersal

At Hillsdale Fair Grounds -- OCT. 24 -- Hillsdale, Mich.

70 REGISTERED HOLSTEINS This entire herd to be sold. Federal tested with records up to 30.16 lbs. for seven days. Several that have milked better than 18,000 lbs. for a year. 50 head bred to a 34-lb. bull. All either just fresh or springers. 4 daughters of a 30-lb. cow. Watch for later announcements. Write for catalogue.

ELISHA BAILEY & SON - - PITTSFORD, MICHIGAN



He threw away his butter-fat

Let this Iowa story throw some light on your farming profits

A PROMINENT farm paper tells about a Corn Belt farmer who purchased a separator at public auction for $11.00. He was congratulating himself on his thrift, when along came an Association Tester. The "bargain" was tested. The test disclosed that $7.60 worth of butter-fat had slipped by into the skimmed milk.

No State or Government inspector comes around to test the lubrication of your automobile, truck or tractor. If there were lubrication inspectors there certainly would be even more farmers who use Gargoyle Mobiloil.

"Bargain price" oils or low-cost lubrication?

Cheap oils are just as uncertain and expensive to use as cheap separators. That is why practically every manufacturer of automobiles, motor trucks and tractors endorses the Gargoyle Mobiloil Chart of Recommendations.

These experts *have* inspected thousands of automobile engines. They know that over half of all moving parts wear out prematurely because of incorrect lubrication. They know that millions of horsepower are lost every year because of incorrect oil. They know that correct lubrication would save millions of dollars of farm profits which now get away because of unnecessary repairs and replacements.

Consumers, too, have discovered that Mobiloil is the cheapest oil at any price. "Suppose it does cost more by the barrel," they say, "*It also costs less by the year.*"

Gargoyle Mobiloil is made by a company which for more than 58 years has specialized solely in lubrication. That is why the Chart of Recommendation is the accepted scientific guide to low cost lubrication.

The chart is shown here in part. If your automobile, motor truck, or farm tractor is not listed in this partial chart, see the complete Chart which hangs on the dealer's walls. Or write our nearest Branch for our booklet "Correct Lubrication."

Tractor Lubrication

The correct engine Lubrication for the Fordson Tractor is Gargoyle Mobiloil "BB" in summer and "A" in winter. The correct oil for all other tractors is specified in our Chart. Ask for it at your dealer's.

GARGOYLE

Mobiloil

Make the chart your guide

Chart of Recommendations

(Abbreviated Edition)

THE correct grades of Gargoyle Mobiloil for engine lubrication of both passenger cars and motor trucks are specified in the Chart below.

How to Read the Chart:
A means Gargoyle Mobiloil "A"
B means Gargoyle Mobiloil "B"
BB means Gargoyle Mobiloil "BB"
E means Gargoyle Mobiloil "E"
Arc. means Gargoyle Mobiloil Arctic

Where different grades are recommended for summer and winter use, the winter recommendation should be followed during the entire period when freezing temperatures are experienced.

The Chart of Recommendations is compiled by the Vacuum Oil Company's Board of Automotive Engineers, and represents our professional advice on correct automobile lubrication.

NAMES OF AUTOMOBILES AND MOTOR TRUCKS	1924		1923		1922		1921		1920	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Anderson	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Apperson (6 cyl.)	A	Arc.	A	Arc.						
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Auburn (Model 6-63)	A	Arc.	A	Arc.						
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Autocar	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Buick	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Cadillac	A	Arc.	A	A	A	A	A	A	A	A
Case	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chalmers	A	Arc.	A	A	A	A	A	A	A	A
Chandler	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Checker Cab	A	A	A	A						
Chevrolet (Models FB & T)					A	Arc.	A	Arc.	A	Arc.
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler	A	A								
Cleveland	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cole	A	A	A	A	A	A	A	A	A	A
Col'bia (Dec.) (Con't Eng.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" All Other Models					A	Arc.				
Cunningham	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	A
Davis	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dodge Bros	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dorris (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" All Other Models	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Dort	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Duesenberg	A	Arc.	A	Arc.	A	Arc.	A	Arc.		
Durant Four	Arc.	Arc.	Arc.	Arc.	Arc.	Arc				
Elcar (4 cyl.)	A	A	A	A	A	Arc.	A	Arc.	A	Arc.
" (6 cyl.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Flint	Arc.	Arc.	Arc.	Arc.						
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	A	A	A	A
Gardner	A	A	A	A	A	Arc.	A	Arc.	A	Arc.
Garford (1¼, 1½ ton)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" All Other Models	A	A	A	A	A	A	A	A	A	A
G. M. C. (Con't Eng.)							Arc.	Arc.	Arc.	Arc.
" All Other Models	B	A	B	A	B	A	B	A		
Graham Bros	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Gray	Arc.	Arc.	Arc.	Arc.	Arc.					
Gray Dort (Canada)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Haynes (6 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (12 cyl.)							A	A	A	A
H. C. S.	A	A	A	A	A	A	A	A	A	A
Hudson Super Six	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Hupmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Jewett	A	Arc.	A	Arc.	A	Arc.				
Jordan	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Kissel	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Lexington (Con't Eng.)							Arc.	Arc.	Arc.	Arc.
" All Other Models	Arc.	Arc.	A	A	A	A	A	A		
Lincoln	A	A	A	A	A	A	A	A		
Locomobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Mack (Con'l)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
McLaughlin-Buick (Can.)	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Marmon	A	A	A	A	A	A	A	A	A	A
Maxwell	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.
" (Con'l)					Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Moon	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Nash Four & Six	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.
" (Con'l) (Quad.)					A	A	A	A	A	A
" All Other Models	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
National (Ind.) (Mod. 6-31)			A	Arc						
" " (Mod. 6-51)			Arc.	Arc.						
" All Other Models	A	A	A	A	A	A	A	A	A	A
Oakland	A	A	A	A	A	A	A	A	A	A
Oldsmobile (4 cyl.)			A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Model 30)	A	Arc.								
" All Other Models			A	A	A	A	A	A	A	A
Overland	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Packard (Eight)	A	Arc.	A	Arc.						
" All Other Models	A	A	A	A	A	A	A	A	A	A
Paige (Con't Eng.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (Com'l)					A	A	A	A	A	A
" All Other Models					A	Arc.	A	Arc.	A	Arc.
Paterson	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Peerless (8 cyl.)	A	Arc.	A	A	A	A	A	A	A	A
Pierce Arrow (2 ton)	A	A	A	A	A	A	A	A	Arc.	Arc.
" " All Other Models	A	A	A	A	A	A	A	A	A	A
R. & V. Knight	BB	A	BB	A	BB	A	B	A	B	A
Reo	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Rickenbacker	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.				
Roamer (Mod. 4-75)					A	A	A	A		
" All Other Models	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Rollin	A	A								
Rolls Royce	A	A	A	A	B	A	B	A		
Sayers & Scoville (S&S)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Star	Arc.	Arc.	Arc.	Arc.						
Stearns Knight	B	A	B	A	B	A	B	A	B	A
Stephens	A	A	A	A	A	A	A	A	A	A
Stewart (N.Y.) (3½ ton)			A	A	A	A	A	Arc.	A	Arc.
" N.Y. (1 ton)	A	A	A	A	A	A	A	A	Arc.	Arc.
" " (Mods. 7X & 10X)	A	A	A	A	A	A	B	A	A	A
" " All Other Models	A	A	A	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Studebaker	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Stutz (4 cyl.)	A	A	A	A	A	A	A	A	A	A
" (6 cyl.)	A	A	A	Arc.						
Westcott (Mod. D-48)	A	Arc.	A	Arc.	Arc.	Arc.				
" (Mod. 60)	A	A								
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
White (Mods. 15 & 20)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" All Other Com'l Models	A	A	A	A	A	A	A	A	A	A
Willys-Knight	B	Arc.	B	A	B	A	B	A	B	A
Winton	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Yellow Cab	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.		

Makes of Engines
When Used in Passenger Cars and Motor Trucks

(Recommendations shown separately for convenience)

Buda (Mods. RU, WU)					A	Arc.	A	Arc.	A	Arc.
" All Other Models	A	A	A	A	A	A	A	A	A	A
Continental (Mod. B5)	A	A	A	A	A	A				
" (Mod. B2)					A	A	A	A	A	A
" (Mod. 12XD)			A	Arc.						
" (Mod. B7)	A	A								
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Falls	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Herculer	A	A	A	A	A	A	A	A	A	A
Herschell-Spill'n (Mods. 15, 41, 80 & 91)	A	A								
" All Other Models	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hinkley	A	A	A	A	A	A	A	A	A	A
Lycoming (C Series)	A	A	A	A						
" All Other Models			A	Arc.	A	Arc.	A	Arc.	A	Arc.
Rochester	A	A	A	A	A	A	A	A	A	A
Waukesha (Mods. Y, Ya & Z)	A	A								
" (CU, DU, EU, FU)	A	A	A	A	A	A	A	A	A	A
" All Other Models			A	Arc.	A	Arc.	A	Arc.	A	Arc.
Wisconsin	A	A	A	A	A	A	A	A	A	A

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 14 Fort Atkinson, Wisconsin October 17, 1924

When

Does It Pay to Buy Protein?

Prof. Morrison of the Wisconsin Station says: "Often farmers do not purchase protein-rich feeds such as linseed oil meal, to balance their farm grown feeds, because these protein-rich feeds cost more per ton than corn, oats or bran. They do not appreciate the large amounts of protein in these feeds and unwisely look upon them as 'too expensive.' Protein is the key to the whole ration and under conditions can be bought at great profit in the form of linseed meal. Its purchase may be well compared to the buying of lubricating oil for an engine: Oil costs more per gallon than gasoline, but who would attempt to run a gasoline engine alone without enough oil?"

Just WHEN it pays to buy protein depends upon the protein. With linseed it is usually ALL the time. But that is discussed fully in the book described below.

What Linseed Oil Meal Is and What It Does

1. It pays large returns on the investment.
2. It is rich in protein.
3. It is a mild laxative, mucilaginous and soothing.
4. It is safe.
5. It is palatable.
6. It can be profitably fed to all farm animals.
7. It makes mellow hides and silky hair.
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9. Extensively used for fitting animals for show.
10. It improves the thrift of animals.
11. It lessens the time needed to fatten stock.
12. It saves a large bulk of other feeds.
13. It is contained in nearly all good mixed feeds.
14. It is highly digestible.
15. It helps make other feeds more valuable.
16. It greatly increases the value of the manure.



This Book is Yours—

—yours for the asking.

Written by Prof. F. B. Morrison, Asst. Director of the Wisconsin Agricultural Experiment Station and Prof. of Animal Husbandry at the Wisconsin College of Agriculture. Prof. Morrison is also internationally known as an authority on feeding through his authorship with W. A. Henry in the famous book, "Feeds and Feeding." You'll find this a very practical feeding guide, which discusses the subject in all fairness, and gives many valuable suggestions as to rations for all farm animals. Write for your copy now. Ask for booklet T10.

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It Pays As We Can Readily Prove:

Profit With Dairy Cows—The tester of an Iowa Cow Testing Association found that in one month after Linseed Oil Meal was added to the ration, there was an increase of 1,103.2 lbs. of milk and 49.2 lbs. of fat from only eight cows. Figuring fat at 62 cents a pound, the gain in fat amounted to $30. The Linseed Oil Meal cost only $7.35. Thus there was a profit of $22.65 in feeding the oil meal. The tester says, "When one can buy linseed oil meal at 2½ cents a pound and by feeding it to a cow get over 10 cents a pound for it in the form of butter-fat, I can see no reason for anyone milking cows not feeding oil meal."

Profit With Swine—Prof. F. B. Morrison, Asst. Director of the Wisconsin Agricultural Experimental Station says, "We have found a ration containing no skim milk or other dairy by-products, which gives just as good gains with young fall pigs as when these dairy feeds are used. This helps solve the fall pig problem for many farmers. Young pigs have been taken right from their mothers in the fall at 8 or 9 weeks of age and put on a ration of corn, linseed oil meal, tankage and chopped alfalfa, and have excelled in gains pigs fed on yellow corn and skim milk. We found that a ton of linseed oil meal was actually worth $85, without giving credit for the 29 days saved in getting the pigs to market weight."

Profit With Sheep—In a recent Nebraska experiment Linseed Oil Meal proved worth $53 a ton in fattening lambs.

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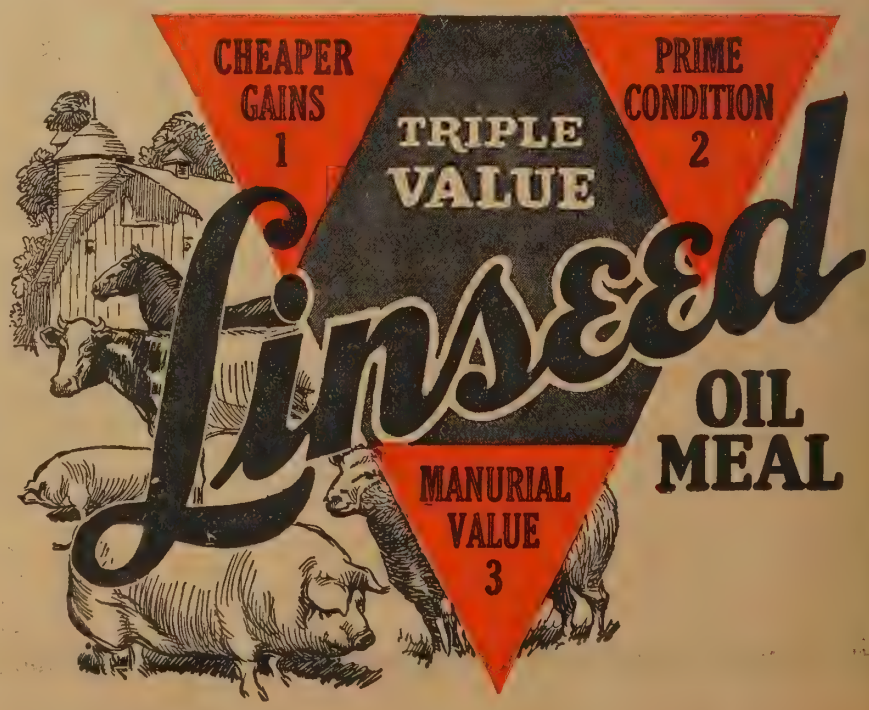
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HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., OCTOBER 17, 1924 Number 14

A TRIP TO THE BRITISH AND CHANNEL ISLES

O. E. REED, Michigan Agricultural College

THE writer had the pleasure of spending some time recently on the British Isles and Channel Islands. A trip of this kind is full of interest to anyone interested in agriculture, particularly if interested in live stock. It is a well known fact that most of our breeds of live stock originated on the British Isles. This fact is of interest today because these islands for the past century have been the seat of great industrial enterprises and conditions have been made favorable for the development of the industries, while agriculture during this time has ranked secondary in importance. One of the big factors which has encouraged the breeding of live stock and the continued development of the various breeds for the past half century has been the demand for good breeding stock from America. It may be stated here and now that for the most part the breeders in America are making greater advancement with most of the English breeds of live stock today than is being made in the land of their origin.

The keeping of live stock is fundamental in a permanent agriculture. Such has been the history of agriculture in the British Isles. Breeders of live stock must first of all be good farmers and this is evident on every hand in England and Scotland. The English farmer may be compared very favorably with the best farmers in America but he is not as good as the farmer in Scotland. The contrast is quite noticeable as one crosses the line into Scotland.

In traveling through the cities as well as through the rural districts, the first impression of superior live stock is manifested by the sight of many excellent horses. The automobile and truck have not replaced the horse in Great Britain in the same proportion as in the United States. A heavy duty on automobiles and the high price of gasoline make it more economical to use horses than automobile power. The great stocky Clydesdale is to be seen on every hand. Other types are also present but in Scotland the Clyde is seen almost everywhere.

The live stock in the British Isles was greatly depleted during the war but it has come back to about the pre-war level. The ministry of agriculture on completion of their survey in 1923 reported that "the stocks of cattle are back to the pre-war level, and as the number of cows and heifers in milk or in calf is the largest on record, the increase is likely to be continuous and it is to be hoped progressive".

Practically every breed of dairy cattle known is to be found in England today, but the dominant breed is the pedigreed and non-pedigreed milking Shorthorn. Many of these cattle impress one as about the equal of the common Durham cow seen on the average farm in the corn belt of America, but they produce a larger quantity of milk. There are many Holsteins (called Friesians), Jerseys, and Guernseys found scattered over England, while the Friesian, Shorthorn, and Ayrshire represent the dairy breeds in Scotland. In Ireland the Shorthorn is gaining in numbers on account of the stimulation given to this industry by the government. Many government owned bulls have been placed at the disposal of the Irish farmers and a great development is being made in improving their live stock. The dairy qualities of the non-pedigreed have been improved through a slow process of selection by the farmers as she is in more general use than other breeds.

The Ayrshire is the only strictly dairy breed, as we know them in America, to originate in Great Britain. They are found in Southwestern Scotland where they originated. This breed has been making great progress in recent years and they are now spreading over Scotland and much interest is being manifested in the breed in England. Many dairymen in England are buying Ayrshire cows for their dairies. The Ayrshire Breeders' Association has been doing some effective breed extension work during the last few years. They have encouraged the establishment of Ayrshire calf clubs in England and their greatest strike has been the entry of the representative Ayrshire cows in the dairy competition at the London Dairy Show. The first exhibit was made in 1922, and their showing attracted much attention. They made another entry in the 1923 Show and carried off most of the honors in the milking contest. The six cows entered stood first in competition with representatives of eight breeds. The writer was able to gain considerable knowledge of the Ayrshire breed in its native country in purchasing cattle for an importation into America.

There has been comparatively little written about the efforts made and the results obtained by the Scotch in the development of their native cow. The achievements of the people in this section stand out as evidence of the value of concentration on one breed of cattle in any section of a country. The red and white cow predominates and can be seen on every hand; they have spread from a small area in the shire of Ayr throughout the southwestern part of Scotland. The Ayrshire now predominates in Kirkcudbrightshire and Dumfriesshire and are sought for by dairymen in the central and eastern part of Scotland. Within a radius of four miles of Drongen, a small village a few miles east of Ayr, there are more than 4,000 registered Ayrshires. The herds range in size from 25 to 250 cows. Kirkcudbrightshire and Wigtownshire to the south are the native home of the Galloway cattle but during recent years the Ayrshire has been taking the place of this breed until to day the exponents of the Galloway are fearful that their breed will soon become extinct in their native haunts.

Dairying thrives in this section of the country. The milk is used for cheese making almost entirely and the whey is utilized in making pork. A Cheddar type of cheese of very high quality is manufactured by the women on the farm.

The cows are left out in the pastures for eight to ten months of the year and 90 per cent of the cattle never get any grain while on pasture. In the words of the Scotchman, "The cows get what they pull". During the winter months (from December to February) the milk cows are usually stabled and are fed straw, hay, and cow turnips with a little oil cake in the best managed herds. The heifers usually run outside the year round. The pastures are exceptionally good. One would naturally expect the grass to be good with the great amount of rainfall they get in that country, but moisture alone does not make luxuriant pasture. The Scotch farmer takes care of his pastures for they are his greatest asset. He feeds them with barnyard as well as commercial fertilizers and consequently pastures get better instead of poorer from year to year.

Dairy cattle are higher in value in Ayrshire than in the United States. Good, unregistered cows were selling during July and August at public auction for 35 to 40 pounds ($175 to $200), while cattle of equal merit in America were selling for $80 to $100. The prices received for dairy products are practically the same as in the United States. The only way to explain the great difference in the valuation of cows then is that the cost of production as far as labor and feed (on account of the excellent grass) is much less than in America.

Several years ago the Scottish Milk Record Society was formed for the purpose of keeping records on the cows. Local organizations were perfected very much on the same plan as our cow testing associations in the United States of America. A part of the expense of these associations is

(Continued on page 426)



DAIRY SCENES IN SCOTLAND, THE HOME OF THE AYRSHIRE

THE 1924 NATIONAL DAIRY EXPOSITION

THE Eighteenth Annual National Dairy Exposition held at Milwaukee, Wis., September 27th to October 4th was better than any of its predecessors because it had more demonstrations and exhibits of interest and value to the dairy farmers. It had more lessons for the breeders, more for the boys and girls, more for leaders and scientists, and more for all. It is not a stereotyped expression to state that the 1924 Dairy Exposition came nearer meeting its opportunities and fulfilling the vision of its organizers than any previous exposition. The various educational exhibits and demonstrations challenged the imagination and stimulated sound thinking. Its many parts when brought together presented the greatness and the bigness of the dairy industry.

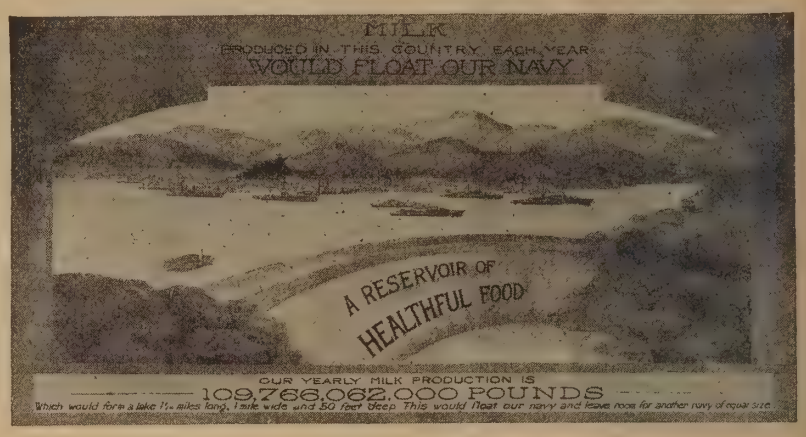
The record cow exhibit, unfortunately called the grade cow exhibit, consisted of 200 grade cows of splendid dairy conformation and with an average record of nearly 400 lbs. of fat. This exhibit was beyond the understanding of most people, for it was only the student of dairying who comprehended its meaning and purpose. It was only yesterday the best thinkers in dairying held that a cow that would produce 250 lbs. of fat in a year was as good as we could hope to develop. But here we found in the record cow exhibit 200 cows averaging 150 lbs. more fat than the standard of fifty years ago. Is it any wonder only a few people who saw these cows fully comprehended their meaning?

Then there was the Guernsey exhibit showing Glenwood's Miss Greta and her family. Twenty-five descendants from one cow, all strong, capable, and outstanding individuals. Segis Pietertje Prospect, champion milk cow of the world, and Cedar Lawn Canary Paul 6th and ten of his record daughters were found in the Holstein section. The Jersey exhibit showed economical production and the cows in the demonstration were averaging daily 38 lbs. milk containing close to 2.0 lbs. fat. The breeder, the dairy farmer, and everyone interested in dairying could draw useful lessons from these exhibits.

There were many educational exhibits but one in particular we believe was full of meaning for the dairy industry. It was made by the American Institute of Baking, showing by groups of rats the increased nourishing properties of bread when skimmilk instead of water is used in making it. The two important elements in skimmilk valuable for bread making are mineral salts and protein. Skimmilk is rich in mineral salts which are important elements in our diet. Wheat flour is deficient in these substances, and by using skimmilk in bread making enough mineral salts are provided to produce strong, healthy rats. Skimmilk provides a perfect protein, an important supplement to wheat protein which is incomplete. In short, bread making offers opportunity to use millions of pounds of skimmilk and by so doing our bread becomes more nearly a balanced food. Skimmilk does not supply sufficient vitamins to permit rats receiving only skimmilk bread to reproduce themselves. But the natural and common way to eat bread is with a thick spread of butter. This is entering into a detail which perhaps does not belong in a general write-up of the Dairy Exposition, but we make mention of this exhibit as it illustrates what the Dairy Exposition is doing to further the development of the dairy industry and because we comprehend the great value of skimmilk for making bread.

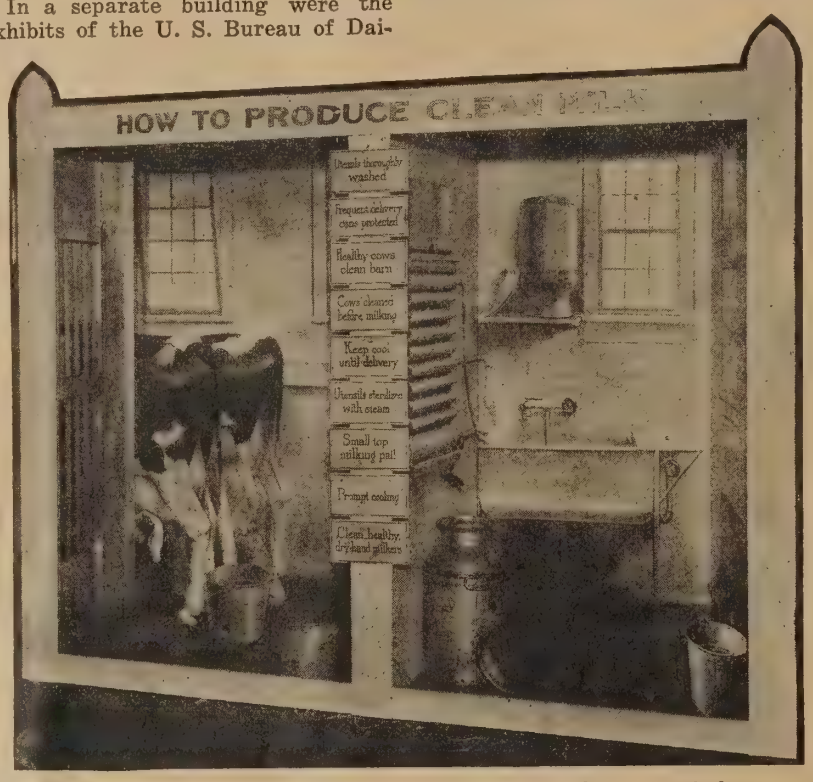
U. S. D. A. Better Dairy Exhibits

In a separate building were the exhibits of the U. S. Bureau of Dairying. Last year when we viewed the exhibit of this great institution at Syracuse we could not conceive the changes possible to make this better. But this year it was something entirely different, and yet withal most educational, and extremely attractive.



Do you realize the vast size of the milk industry? Think of producing enough milk to float the U. S. navy! The value of dairy products, if applied to the public debt of the United States, would pay it off in ten years. Value of dairy products in 1923 was $2,566,000,000. Public debt on June first, 1922, was $22,964,000,000.

The main messages were carried in a series of panel booths. The desirable feature about this form of exhibit is that it lends itself so admirably to



This booth tells its own story illustrating sanitation in both barn and milk house.

The illustrations on this page are made from photographs of the exhibits prepared by the Bureau of Dairying, U. S. Department of Agriculture.

tention and carry home in a brief yet forceful way some facts you should know. Mr. Hiscocks, who is in charge of this exhibit, informed us that many visitors copied the information given in their note books. He also said two or three exhibits of dairying have been traveling the fair circuits this year.

The fact that this exhibit had an entire building practically, made it possible to display the material to fine advantage. Five central ideas dominated the general make-up. These included groups of the following: Better Cows—Why We Need Them; Better Cows—How to Get Them; Better Care of Dairy Animals; Better Dairy Products; Organization.

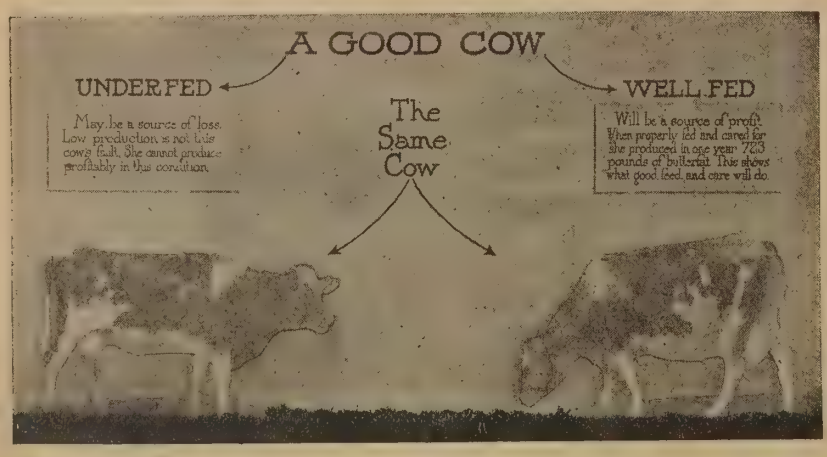
One of the first exhibits to get our attention spoke of the need for culling and illustrated this need with the old Biblical story, "And the seven lean and ill-favored kine did eat up the seven fat kine". So it was with the farmer who found he had seven profitable cows and seven unprofitable cows.

Another exhibit revealed the fact that pasture crops furnish nearly one-third of all the feed at one-seventh the cost. Therefore they should receive better care.

Dairy Council Exhibits Educational

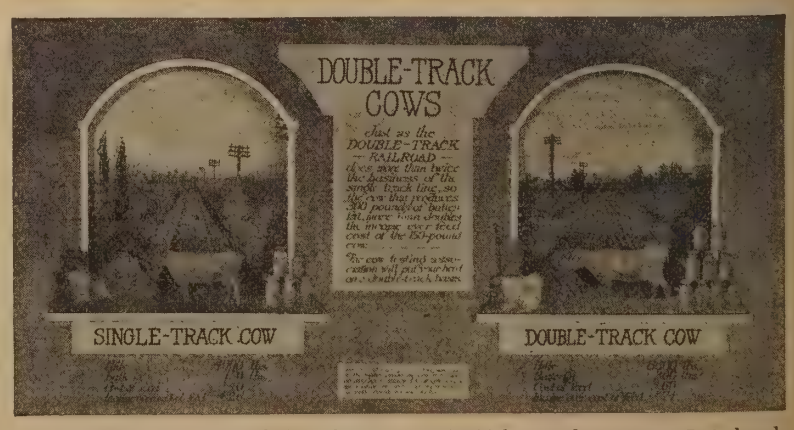
The exhibits of the National Dairy Council occupied about 8,800 square feet of floor space and showed in detail the activities of the Council and its affiliated units. Mr. M. D. Munn, president of the Council, took time to explain each exhibit and its purpose.

A broadside of panel booths showed the many educational features, including: health plays to interest school children in following



When underfed she produced in one year:		When well fed she produced in one year:	
Milk, lbs.	3,026	Milk, lbs.	7,202
Fat, lbs.	133	Fat, lbs.	359
Feed cost	$33.41	Feed cost	$60.40
Income over feed cost	$16.36	Income over cost of feed	$105.00

Feeding well pays, as shown by this illustration and by other cows in the cow testing association to which this cow belongs. The herd that ate the least per cow in the association produced the least milk and fat and had the lowest income over cost of feed. In the same association the herd that ate the most per cow produced the most milk and fat and had the highest income over cost of feed.



This exhibit shows the relative advantage of the higher producing cow. It is based on averages obtained from cow testing association records and represents varying conditions and prices. The legends accompanying this exhibit are as follows:

Double-track cows. Just as the double-track railroad does more than twice the business of the single track line, so the cow that produces 300 lbs. fat more than doubles the income over feed cost of the 150-lb. cow. The cow testing association will put your herd on a double-track basis. Single-track cow: Milk, 4,000 lbs.; fat, 150 lbs.; cost of feed, $40; income over cost of feed, $26. Double-track cow: Milk, 8,000 lbs.; fat, 300 lbs.; cost of feed, $60; income over cost of feed, $74. Association herds show increased production each year. Yearly average per cow in all associations with records available for first 5 years of testing: First year, 236 lbs. fat; 2nd year, 257 lbs.; 3rd year, 277 lbs.; 4th year, 284 lbs.; 5th year, 294 lbs. What testing has done for others it will do for you.



MICHIGAN COLLEGE CHAMPION DAIRY CATTLE JUDGING TEAM
Left to right: J. E. Burnett, coach; E. S. Weisner, R. P. Britsman, F. H. Williamson.



FARMERS' DAIRY CATTLE JUDGING CONTEST
This occasion took place in the building that housed the record cows. It was the first time in the history of the National Dairy Exposition that the dairy farmers had an opportunity to measure their skill as judges of dairy talent. Twenty-four teams participated in the contest.

health rules, health stories for children, health teaching helps for teachers, food facts for grown-ups, quality control work, ways of using dairy products. In a special booth at certain hours health chalk talks by Miss Lucille Philbrook alternated with cooking demonstrations of dairy dishes and brought a crowd of onlookers at all times. Sixteen films were shown in the moving picture booth. A most striking exhibit consisted of the animal experiments conducted by Dr. Palmer of University of Minnesota, in which it was visibly demonstrated that milk and butter contain a certain something that is essential in the growth of growing animals and which is not supplied in other foods. Puppies, rats, mice, and chickens were the subjects.

Something which we believe a large number of Hoard's Dairyman readers are interested in is the quality control work done in the producing end of the business by the Dairy Council. Through an interview with W. H. Harper of Philadelphia we learned of the more important things he is doing. "About 20,000 members in the Interstate Milk Producers' Association live in four different states, and ship their milk into Philadelphia," says Mr. Harper. "We have eleven field inspectors in this unit and they have inspected some 12,000 farms up to the present time. In the past six months they have inspected 211 receiving stations. The message of clean milk production is being put over by inspection and organized meetings. The farmers adopted the following regulations:

"In the barn inspection we insist that there be enough light, the interior be whitewashed, there be a good ventilation system, and that there be an adequate drop behind the cow to take care of the manure properly. With regard to utensils we require the small top pail, dry hand milking, and proper cooling. Farmers should have a milk house. We insist upon their having a can rack upon which to turn cans upside down when returned from the factory. With regard to transportation it is absolutely necessary that they have a covering for the cans during the haul. We also insist that they solder all small holes in the tops of their cream cans.

"Both farmers and dealers in the Philadelphia milk shed realize the importance of clean milk. The dealers are also organized and have their regulations. The clean-up campaign is thus run co-operatively between the producers and the dealers and the Dairy Council follows up the work.

"Dealers must have covers over receiving tanks. They must have only sanitary pipes in their receiving stations—pipes which can be taken apart each day and washed and sterilized. They must have sanitary cooling equipment. The cans must be thoroughly washed and dried before leaving the plant. As evidence that this work is effective, inspectors at the receiving stations are turning down only six or seven cans a day as contrasted to 60 or 70 a short while ago."

It may interest you to know that there are 105 workers in the National Dairy Council and its branches at present. About 26 representatives were at the National Dairy Show. M. O. Maughan is secretary of the organization. C. I. Cohee is director of the quality improvement department.

Feeding the Family

In the same building with the Dairy Council exhibits was a new feature of the Dairy Show, Feeding the Family. President Van Norman secured the co-operation of twenty social, civic, and educational organizations in presenting this big human welfare feature. Several groups of school children put on milk and health plays, in costume, that were watched by large crowds every day. Under the direction of women specialists from the Wisconsin College of Agriculture, a dairy dishes contest was conducted daily in which Milwaukee housewives and others competed. The cheese spread was also demonstrated and visitors were treated with this delightful delicacy and given the recipe.

Finding the Fountain of Youth

Right alongside of Feeding the Family was a masterpiece called "The Fountain of Health is the Fountain of Youth", prepared by the Wisconsin College of Agriculture under the direction of K. L. Hatch and other specialists. The story told by a succession of small exhibits was so fascinating and wonderful that we are publishing the legends of the several exhibits erected to show how human beings have sought health and youth through various agencies:

Exhibit No. 1 showed Ponce de Leon beside the flowing water in Florida and which he thought was the fountain of youth. "He braved the terrors of an unknown wilderness with the hope that he might drink the magic waters which would restore bloom to the cheek, sprightliness to the step, and brightness to the eye. His search was in vain. He found it not."

Exhibit No. 2 was a group of several drugs supposed to possess the properties of eternal youth. The legend of explanation is as follows:

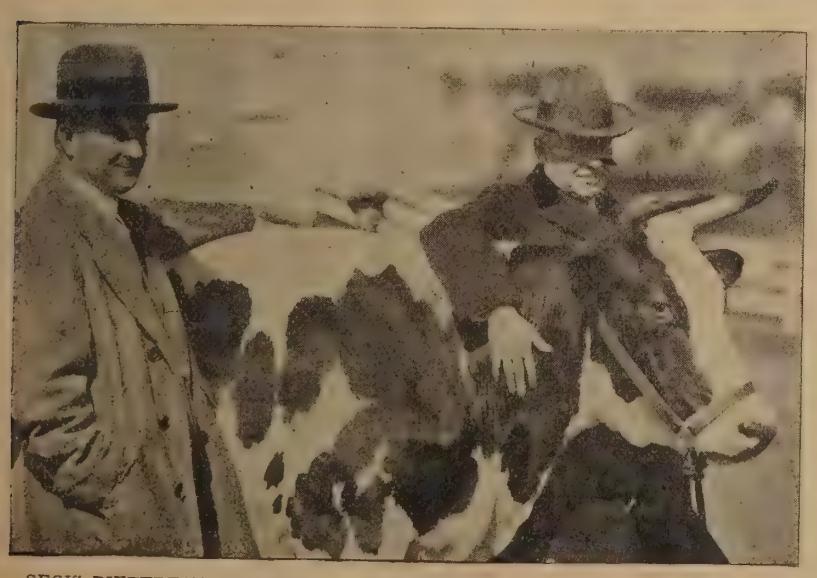
"Then came the age of medicine. Men put their faith in drugs. Conflicting schools arise, but all have a common goal—to relieve human suffering, to prolong life, and to stay the hand of time. How worthy the effort. But how meager the reward."

Exhibit No. 3 was a goat, visualizing what man once considered the fountain of youth and we read the following explanation:

"The sand seeps through the hour glass! A great discovery is announced. To renew the youth, trans-



Left to right: J. W. Martin, C. A. Schroeder, J. Q. Emery, George McKerrow, and H. A. Brace. These men attended the meeting of pioneers in dairying of Wisconsin, held in Milwaukee, Wis., during the week of the National Dairy Exposition. All of them can remember when there was no dairy industry in Wisconsin, and they found pleasure in relating the early dairy practices upon the farm before the invention of modern dairy equipment. Some of these men have been following the footsteps of the cow for more than 60 years.



SEGIS PIETERTJE PROSPECT, THE CHAMPION MILK COW OF THE WORLD WITH FRANK O. LOWDEN, PRESIDENT AMERICAN DAIRY FEDERATION (RIGHT), AND GOVERNOR JOHN J. BLAINE OF WISCONSIN



THREE VETERANS OF THE SHOW RING
Left to right: Jimmie Lee (who has handled entries on the big circuit for 37 years). He has showed Marsh Farm Guernseys for many years. Frank White with 27 years of show ring experience. He is showing Jefferson County Holsteins this year. John Swanigan, veteran Jersey showman whose ring work includes 30 years on the big circuit. He is showing Elm Hill Farm Jerseys this year.



S. F. HELEN R, SENIOR AND GRAND CHAMPION AYRSHIRE COW

OWNED BY ADAM SEITZ & SONS, WISCONSIN

plant the gland. Less painful and more popular the craze to use the extract of these so-called health-giving glands. Precious humbugs all!"

Exhibit No. 4 consisted of paint, powder, and clay, and we read:

"The sun sweeps through his daily cycle. The pot of gold lies just beyond the rainbow's end. A vain god entices. The appearance of youth is sought and obtained by 'covering up' the marks of time. The era of putty paint and powder is ushered in. How futile the effort! Cosmetics can add not one moment to the days of man!"

Exhibit No. 5 was a fountain of delectable milk and here follows the explanation:

"Time runs on; the urge persists. Meanwhile patient, plodding men of science, moved only by the desire to serve the race, search the secrets of life. Hidden away abundantly in the myriad atoms of milk they discover in vitamins the unseen builders of health and strength and beauty and lengthened life. They proclaim to the world the now accepted truth 'Milk is the one indispensable food in the diet'. Come, drink at the fountain of youth!"

Junior Show a Feature

Who will be the dairymen ten—twenty years from now? Of course, they are our boys and girls today. To our mind the Junior Show at the National was of great significance, and we hope that every Dairy Show visitor paid his respects to the boys' and girls' department. There on the ground floor were some 150 sleek looking dairy calves. Just inside the door where the stairways lead up were held the dairy team demonstrations. Many a grown-up could learn a good many things from these young demonstrators, seekers after the truth. Then, going up, on the second floor, the kitchen, the dining hall, the play room, the sleeping quarters, and more beds on the third floor. Over 400 boys and girls from 21 different states were in attendance. And the spirit? Simply great! A more complete report of junior activities will be found on the Junior page of this issue.

Student Judging Contests

There were twenty-four teams from as many states. All day they labored in the show ring and in giving their oral reasons. They did not learn the results of the gruelling battle, however, until the following Tuesday night when they assembled at a banquet to talk it over.

Sunday was a rather quiet day at the National Dairy Show. Monday brought another students' contest. This time the boys fought it out judging dairy products. The awards were made Tuesday night at the banquet.

Michigan Agricultural College captured first place in the dairy cattle judging contest, Wisconsin second, and Nebraska third. The Michigan team was coached by J. E. Burnett. Members of the team were: Ernest S. Weisner, R. Palmer Britsman, and Frank H. Williamson. Williamson was declared champion individual judge.

States represented in the contest were, besides the three winners: Illinois, Iowa, Massachusetts, Missouri, New Hampshire, N. Dakota, Ontario, Oklahoma, Virginia, Texas, South Carolina, New York, Ohio, California, Kansas, West Virginia, Minnesota, South Dakota, Oregon, Indiana, Tennessee.

Iowa State College was first, Pennsylvania State second, University of California third, Ohio fourth, and Oregon fifth in the students' dairy products judging contest. W. W. Greise of Iowa was awarded the honor of being best all around judge. The dairy products' judging contest is rather a new event on the students' program at the National, but this year's contest was a marked success.

Farmers' Judging Contests Success

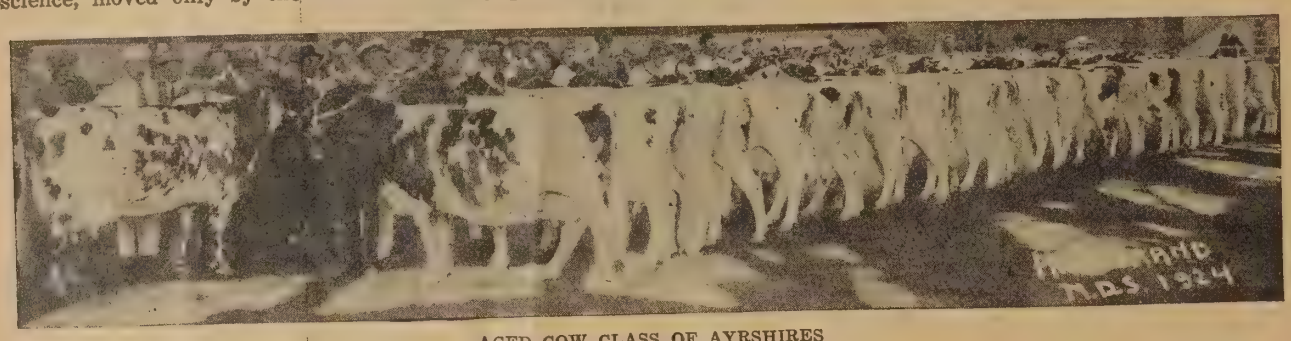
For many years the students' cattle judging contests have been held, but this year brought a new departure in the way of judging contests and the first farmers' dairy cattle judging contest. During the past summer many sectional contests have been held throughout Wisconsin and the National Dairy Show brought together the winners. More than 30 three-men teams—some had women on, too—competed during the week. George M. Briggs of the Wisconsin College of Agriculture was in charge. This contest is considered of great value to farmer-dairymen in the selection and improvement of their herds. The farmers' contest took place in the grade cattle barn. Twenty-four teams, a total of seventy-two contestants, competed during the week. In addition forty-one individuals participated for high scores. Six different states were represented: South Dakota, Missouri, Illinois, Michigan, Minnesota, and Wisconsin. Never before has the grade cow received so much attention at the big Dairy Show.

Dairy Machinery Exhibits

Down town in Milwaukee's big auditorium were housed the machinery exhibits. It was a veritable labyrinth of modern machinery designed to handle efficiently the manufacturing of dairy products. Hardly more than 35 years ago the wooden dash churn worked by hand was almost the sole instrument used in making butter; milk was cooled by setting in a tank of cold water; the milk bottle unknown; pasteurization was not practiced; milk was largely separated by skimming with a spoon or by other primitive methods; delivery was made afoot or with a horse. But today, see that giant power churn that will churn out butter by the ton; see that great cooling system that will make milk ice cold in a miniature Niagara Falls; there are the tremendous filling and capping machines handling thousands of quarts in a comparatively short while; see the huge pasteurizing plants designed to make milk safe for human consumption; over yonder notice those big electric and gasoline trucks used in modern milk delivery. Truly 'tis a wonderful age—the age of machinery. Exhibits filled Milwaukee's massive auditorium to overflowing. Fifteen years ago the whole National Dairy Show was housed in this same building. What a wonderful change! What a stupendous growth!

The Dairy Cattle

Nine hundred and fifty-four head of pure-bred dairy cattle, the pick of earlier shows, representing seventeen states and two Canadian provinces, made up a National Dairy Show exhibit of just 74 head less than in 1923. Some of the breeds were better represented than a year ago, others not so well, but practically every blue ribbon winner was an outstanding representative of its breed and those who came to see them judged were amply repaid for coming. Unfortunately all too small a crowd was there at any time and during most of the last two days the arena seats were almost deserted.



AGED COW CLASS OF AYRSHIRES

The two-judge system was used for four of the breeds and while satisfactory decisions resulted in most cases, we doubt the efficiency of such a system. Two judges on an equal footing mean too many compromise decisions that really do not represent the opinion of either man. Moreover, it makes for slower placing of the animals which in turn lessens the interest of the spectators.

It has always seemed to us that if a man is a capable judge he can do his best work without having to defer to someone else a part of the time and if he is not a capable judge he has no business in a National Dairy Show ring regardless of who may be there to assist him. Time and again we have seen each of two men do efficient and satisfactory judging alone and then at a later show the two of them working together prove far less satisfactory.

If there must be two judges let one do the placing, calling in the other only when he may want advice on a close decision. Apparently the Jersey judges did that this year. At least Mr. Tucker seemed to do most of the work, and then called Mr. Sisson for consultation after the cattle were pretty well lined up. Their system seemed to work out well. Little time was lost, and both spectators and exhibitors appeared to be well satisfied.

Ayrshires

Judges: Gilbert McMillan, Quebec; J. B. Fitch, Kansas.

Ayrshire breeders who attended the National should have been proud of the excellent showing their breed made this year. We have seen one or two larger exhibits of the red and whites but never have we seen one so uniformly good as that made by the 190 head from 31 herds in four states and two Canadian provinces. It was regrettable that more visitors were not in the judging arena Friday and Saturday to appreciate it.

The judging of Ayrshires was not nearly so satisfactory to those who saw it. It was productive of a number of arguments and two or three near riots in the ring, something to be much regretted because they did no good and looked to us like poor sportsmanship. It is not always easy to smile and say nothing when one loses, especially when the decision seems wrong, but the only protest that is ever allowable is an orderly one. We know that it is not always either wise or just to criticize the placings made by experienced judges who have a much better opportunity to study the animals in the ring than do the spectators, but the Ayrshire judges this year certainly did a far from satisfactory job with some of their classes and we are inclined to place the blame for most of this on the two-judge system which must always mean many compromise decisions.

To us the best class of the entire show, all breeds considered, was the Ayrshire aged cow class with twenty-seven entries. Some of the other breeds had larger classes and certainly had aged cow winners that equalled the winners in this class but among these twenty-seven were surprisingly few tailenders.

Seitz's S. F. Helen R. was an outstanding first although, having just freshened, she did not show the depth of a week earlier at Waterloo. Next to her in the line was Belle of Oban, a dry cow owned by the Experimental Farms of Ontario. She is a good type of cow but showed just a little plain and it almost seemed as though Wallis' Lucindy of Spring Castle 2nd, last year's grand champion, could have gone into the line right there in spite of the fact that her fore udder is no longer well attached. She finished in seventh place. There was another good Seitz entry in fourth place with the third prize



STRATHGLASS ROAMER, JUNIOR AND GRAND CHAMPION AYRSHIRE BULL

OWNED BY BARCLAY FARMS, PENNSYLVANIA



ROBERT SCOVILLE AND H. H. KILDEE, GUERNSEY JUDGES

cow not too good in udder or rear end.

Among the four-year-olds, Cavalier's Luxury, owned by Seitz, and Woronoake Pearl 3rd were outstanding and to the spectators it almost seemed a toss-up as to which would win. The judges put the Wisconsin cow up and had an Ontario heifer third with perhaps their hardest entry to place in fourth. This was a very milky looking heifer owned by Barclay Farms, too good to go farther down below some of the type more nearly like the leaders and too small to go higher.

There were twenty-eight two-year-olds—a very good class with an exceptionally good pair representing Alta Crest Farms and the Ohio State University herd at the top. These two were very close but the Massachusetts entry seemed the stronger heifer of the two and went up, sustaining the judgment made at earlier shows where the two met.

The junior yearlings when finally placed caused one of the big arguments of the show. Barclay Farms' Barclay's White Flower was a very good heifer and quite probably deserved her place at the top, although she does not have too strong a back, but everyone except the judges seemed agreed that Cavalier's Howie's Glen, owned by Seitz and placed seventh, would have made a better second than the rather plain Cummings entry that did finish there. Certainly the Seitz heifer was better than her stablemate that finished third and away better than the two in fourth and fifth places.

S. F. Helen R. was senior and grand champion and Alta Crest Hillbrow, a senior calf owned by Alta Crest Farms, beat the junior and senior yearlings, both of which belonged to Barclay Farms.

One of the big surprises in the bull classes was the placing of Auchenbrain Toreador, grand champion at the Eastern States Show this fall. He was a hard one to fit in the class because he is pretty high off the ground and of a little squarer bodied type than any of the others. He couldn't beat Seitz's Ping Pong that placed first but most every one expected him to come somewhere near the top. The judges put him down to sixth largely because he did not move too well and his hind legs are no longer entirely sound.

The real upset among the bulls, however, was the grand championship decision. Cavalier's Ping Pong was a good senior champion and almost every one expected him to beat the junior champion, Strathglass Roamer, a senior yearling owned by Barclay Farms. The judges put the young bull up. They criticized the old bull's head and neck, found him a little patchy at the tail setting, and gave the youngster credit for better Ayrshire type in spite of the fact that he is not too well sprung and is narrow at the pins.

The Ayrshire breeders deserve credit for bringing out five state herds. They were the only ones to do it although it should have been easier for almost any of the other breeds to have done so. Certainly with the show where it was, Holstein or Guernsey breeders should have been able to accomplish it much easier. The state herds represented Ontario, Quebec, Wisconsin, Massachusetts, and Ohio, and were placed in the order named, a placing that was not entirely popular. The judges found the Canadian groups most uniform, although the Wisconsin herd had the most top or near top prize winners.

Exhibitors:—Ayrcroft Farm (B. B. Simons & Sons), Daniel Hanrahan, Wm. Nesbit & Sons, Adam Seitz & Son, University of Wisconsin, H. M. Wallis, of Wisconsin; Alta Crest Farms, Middlesex Meadows Farm, Monstone Farm, Massachusetts Agricultural College, Woronoake Heights, of Massachusetts; F. O. Betts & Sons, B. G. Betts & Sons, Ohio State University, C. B. Otto Farms, of Ohio; Barclay Farms of Pennsylvania; Melvin Begg, Cummings Bros., Peter S. Cairns, Director Experimental Farms, Scott Fraser, Alex Hume & Co., Kemptville Agricultural School, J. L. Stansell, of Ontario, Canada; Ulric Deschamps, Arthur Legare & Sons, Macdonald College, R. R. Ness & Sons, D. T. Ness, of Quebec, Canada.

Ayrshire awards on page 415.



J. E. DODGE AND J. C. PENNEY, EMMADINE FARM MANAGER AND OWNER

Guernseys

Judges: Robert Scoville, Connecticut and H. H. Kildee, Iowa.

The Guernsey show outside of one or two classes was not up to the standard one expects to see at the National Dairy Show. Two hundred and forty-one individuals were led before Judges Scoville and Kildee and the closeness of the first two in many cases was very marked. The long looked for meeting of show herds from various parts of the country resulted in both grand championships going to Emmadine Farm, New York; the muchly coveted blue ribbon in the get of sire class to Shorewood Farm, Minnesota; the aged bull class to Hyzer, Wisconsin, and the aged cow class to Marsh, Iowa.

Fourteen aged Guernsey bulls entered the ring at nine o'clock Tuesday morning and started the live stock judging program which was watched by thousands of breeders from all over the country. Lassie Boy of the Prairie, a six-year-old owned by Albert Hyzer, Wisconsin, won first place with Joseph Golinvaux's Memento of Highland Place winning the red ribbon. The winner was cleaner cut behind and was more attractive in front.

Shorewood Resolute, owned by Emmadine Farm, won the three-year-old class in an easy manner. Another Cherub bull, Cherub's Royal Leader, owned by Shorewood Farm, was second choice. Shorewood Resolute was later made senior and grand champion. He is a bull well worthy of the honor and has been awarded the blue and purple ribbons wherever shown this year.

The best male class from the breed standpoint was that of the junior yearling bulls. Eleven fine future sires, fitted well and exhibited to their very best advantage, comprised this class. Marsh's Cherub's Prospect of the Prairie was finally placed at the top and Corium Cherub's Edgar, a Reuping entry, was right at his shoulder. Third went to Dorothy Marie's Challenger of Iowanola owned by Mountain Bros., Iowa. The first and second bulls were reversed at Waterloo the week previous.

Twenty-four aged cows made a very impressive showing with Marsh's Honey Bloom of the Prairie, a show-ring veteran, finally being placed first. Bell Buoy's Golden Lassie of City View, owned by Tenney, won second honors and Moss Raider's Primrose from the Emmadine herd received the white ribbon. The three-year-old class, however, was superior when all animals were considered. Mixter May Princess, a cow of outstanding dairy type, won this class and later the senior and grand championships. Emmadine's Foremost Princess was second to Mixter May Princess in her class and Marsh's Peach Blossom of the Prairie was third. Much deliberation was necessary in awarding the female championships. Mixter May Princess and Honey Bloom of the Prairie are both very good individuals and although the former may be faulted a little behind the shoulders, her pronounced dairy temperament carried her over the older cow.

The Get of Sire class which is without question the most important to breeders, and which rewards the winning owner exactly the same amount as the junior calf class, was a very good one. Hoard's Dairyman originated a movement some time ago to place the proper emphasis on this class and to define its qualifications so that cows and heifers would largely constitute each get. It takes some time for breeders to develop a get of this character, yet we are very confident that a few years will see our various fairs and shows realizing the importance of this class. This year a young get of Ladysmith's Cherub was given the preference over a group of four females by



THE AGED COW CLASS OF GUERNSEYS



FIRST PRIZE GUERNSEY GET OF SIRE OF LADYSMITH CHERUB



MIXTER MAY PRINCESS, SENIOR AND GRAND CHAMPION GUERNSEY COW
OWNED BY EMMADINE FARM, NEW YORK



SHOREWOOD RESOLUTE, SENIOR AND GRAND CHAMPION GUERNSEY BULL
OWNED BY EMMADINE FARM, NEW YORK

Cherub's Prince, all of which had passed through one or more lactation periods. The judges faulted the second prize winners which were owned by Marsh because of their prominent tail settings and gave the blue ribbon to the Tenney group on their superior uniformity and top lines. We were not entirely in accord with this decision and hope that next year and henceforth females that are truly demonstrating the value of their sire as well as his real purpose in life will be given more consideration. A young get of Langwater Foremost, exhibited by Emmadine Farm, received third money and Mountain Bros. won fourth and fifth on gets of Cherub's Winner and Cherub's Challenger.

Guernsey awards on page 407.

Jerseys

Judges: C. J. Tucker, Missouri; Geo. W. Sisson, New York.

The Jersey show was by no means as good as it usually is. One hundred thirty-one head made it a smaller show than that of three of the other breeds. The quality was good, however, for many of the winners at earlier fairs were there.

Twin Oaks Farm of New Jersey was the big winner, taking 11 of the 19 blue ribbons as well as both grand championships. Fern's Wexford Noble, their aged entry, easily headed the bulls, something he has done wherever shown for the past three years. He is the kind of bull all of us like to talk about but seldom see—an upstanding, stretchy fellow with plenty of scale and very smoothly turned. Next to him in the aged class was Sayda Rose's Jap, owned by Jersey Crest Farms, Wisconsin, of much the same general type but lacking some of the winner's finish and not so smooth at several places. The aged bull was, of course, senior and grand champion.

Counterstroke owned by Twin Oaks and Xenia's Cowslip Oxford, Elm Hill Farm's junior yearling, were the chief competitors for junior championship. The former is good but he showed poor over the top much of the time while in the ring and is perhaps not quite so good over the rump so that the younger bull was a popular winner.

The fifteen aged cows made an excellent class and if a few of the tail-enders could have been eliminated it would have been second in quality to none during the entire week. Fern's Oxford Diana was a very acceptable top, indeed, with Imp. Juggler's Jersey Queen owned by Ellsworth second and Fern's Interest Lass, also from the Twin Oaks herd, third.

Elm Hill Farm brought out the outstanding four-year-old, Xenia's Surprise, and she was later one of the chief contenders for senior championship honors. She is equal to the aged cow in many respects and has perhaps a little more style, but her udder is cut up more underneath and it was largely because of this that Fern's Oxford Diana was senior and grand champion.



FIRST PRIZE JERSEY GET OF SIRE

The junior female classes were not so well filled in proportion to the size of the show as were those of the other breeds, due, no doubt, largely to the fact that these animals must be bred by exhibitor. Sybil's Pomona, an outstanding senior yearling daughter of Sybil's Gamboge, was an easy winner in her class and a good junior champion. She is owned by J. S. Ellsworth, Connecticut.

Exhibitors—Dorothy Ausman, S. A. B. Ausman, W. O. Douglas, Chas. A. Dunbar, John Hill, E. E. Hill & Sons, Jersey Crest Farms, W. M. Knight, Mrs. Philip Smith, Hugo J. Trost, University of Wisconsin, Frederick D. Underwood, of Wisconsin; Jas Bagg & Sons, B. H. Bull & Son, Harry Cockshutt, Frank Chapman, D. Duncan & Son, J. M. Dolson, A. T. Little, John Pringle, of Ontario, Canada; Cedar Crest Farms, of Illinois; C. C. Chamberlain, J. S. Ellsworth, Louis Stanton, of Connecticut; Sam F. Crabbe of North Dakota; Mrs. J. L. Dodge of Kentucky; Thelma Dye, Foy Mendenhall, Indiana Condensed Milk Co. and E. A. Richardson, of Indiana; Elm Hill Farm of Massachusetts; Inderkill Farm of New York; Meredith Jersey Farm of Iowa; Pebble Hill Plantation of Georgia; South Dakota State College; Twin Oaks Farm of New Jersey.

Jersey awards on page 422.

Brown Swiss

Judge: Professor Geo. Humphrey, Wisconsin.

While the Brown Swiss exhibit was not up to the record showing at Waterloo a week earlier, it was a good one representing eleven herds from six midwest states.

Marshall of Michigan had winning entries in three of the six bull classes and with two of his three winners succeeded in taking both junior and senior championship. His three-year-old, Prince of Meadow Green, was a good winner among the seniors and his senior calf was junior champion. The latter is cleaner cut in the thighs, has a better head, and shows we think just a little more dairy type but Professor Humphrey favored the more mature animal, thereby reversing the Waterloo placing where the younger bull was grand champion.



PRINCE OF MEADOW GREEN, SENIOR AND GRAND CHAMPION BROWN SWISS BULL
OWNED BY L. S. MARSHALL & SON, MICHIGAN

Swiss Valley Girl 7th, Hull Bros.' great 15-year-old cow, was an easy first among 15 aged cows and in the line just below were two others from the same herd and by the same sire, Reuben, placing third and fourth. Betty of Lake View, owned by A. E. Bower & Son, herself a grand champion at many shows, was second. She, too, is by Reuben, and completed a get of sire line up in an aged cow class that we have never seen equaled anywhere.

Hull Bros. succeeded in winning two other female classes with their junior yearling and heifer calf but Nick Schmid's senior yearling stopped them when it came to junior championship.

The old cow was senior and grand champion.

Exhibitors—A. E. Bower & Son of Illinois; James Dodge, W. A. Drollinger, Emil J. Jensen, N. C. Schmid, Lila Schmid, Elmer Tubbs, of Wisconsin; Hull Bros. Co. of Ohio; J. W. Hess of Indiana; L. S. Marshall & Son of Michigan; F. P. Minette & Son, Minnesota.

Brown Swiss awards on page 407.

Holsteins

Judges: W. S. Moscrip, Minnesota; T. E. Elder, Massachusetts.

The Holstein show was very much of a success. There were 285 head shown from 93 different herds and while previous shows may have brought out individuals that would have beaten some of the tops this year, the breeders have every reason to be pleased with the 1924 line-up.

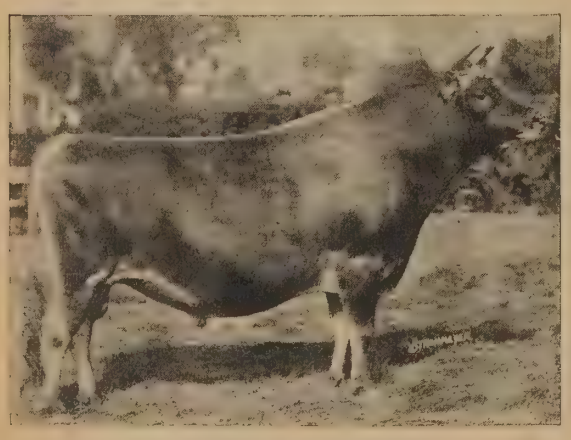
The 38 aged cows were the largest class of the show and although they failed to show the quality of a younger class, they were good. Zwingara Segis Clothilde, owned by the Modern Woodmen Sanatorium, and undefeated in class this year, made a very acceptable top with Bessie Fayne Johanna, owned by Waters & Buth, Michigan, a good second. The latter has the advantage of size and the best veining we have seen in years, but she lacked finish. Below these two the quality was not quite so good and we are inclined to think that some of those down toward the end of the ribbons were little, if any, better than a few of those which got the gate. In fact one cow, sent to the barn, placed above two of the lower money winners in the A. R. O. class next day.



FIRST PRIZE BROWN SWISS GET OF SIRE BY REUBEN

The cow at the extreme right is 15 years old and was grand champion. The cow next to her won second, the next third, and the last one fourth.

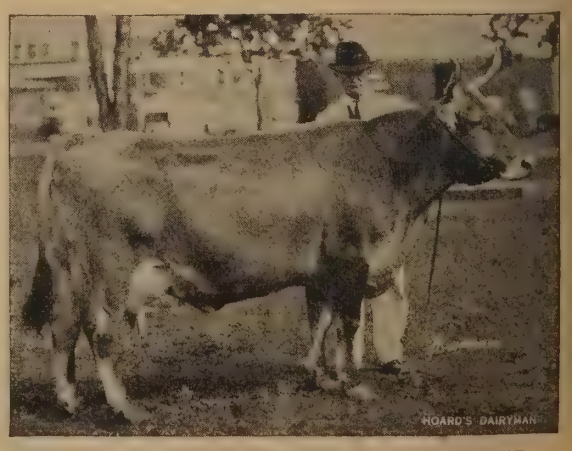
The real quality of the female



FERN'S WEXFORD NOBLE, SENIOR AND GRAND CHAMPION JERSEY BULL
OWNED BY TWIN OAKS FARM, NEW JERSEY



FERN'S OXFORD DIANA, SENIOR AND GRAND CHAMPION JERSEY COW
OWNED BY TWIN OAKS FARM, NEW JERSEY



SWISS VALLEY GIRL 7TH, SENIOR AND GRAND CHAMPION BROWN SWISS COW
OWNED BY HULL BROS. CO., OHIO



JUDGES MOSCRIP AND ELDER OF THE HOLSTEIN CLASSES

show was in the three-year-olds with the top five as good as any five three-year-olds we have ever seen in a ring. Judge Moscrip pronounced them by far the best he had seen this year. They included Madam Artis Wayne Denver, the Jefferson County (Wis.) heifer; Dorothy Ormsby Piebe, owned by Hargrove & Arnold; Maudlene Ollie Homestead entered by the Minnesota Holstein Co.; Jessie Hengerveld Segis from the Detroit Creamery Co. herd, and Corwin Colantha Florence Ormsby owned by B. S. & S. H. Dragoo of Indiana. The last named was first last year as a two-year-old but she was very much out of condition and while an excellent heifer could not have beat any of the other four. Madam and Dorothy were unquestionably the two best of the class but the two others were close and of nearer the same type as the Jefferson County entry so that many thought the Hargrove heifer would either go above or below the three. Madam, with much the advantage in scale and udder, went first with the others placing in the order named.

Last week at Waterloo the Zwingara cow beat the three-year-old for senior championship but Moscrip and Elder reversed that decision, putting the heifer up because of her better head, depth of body, quality of udder, and set of hips and pins as well as her size (she weighs over 1,700 lbs.). She is heavy at the shoulders, lacks in her veining, and is just a little patchy over the rump, but this fleshiness could be discounted in part because she is showing dry. The Colorado cow is a good little cow but hardly as good a Holstein cow as Madam is a heifer.

The grand championship went with the senior, and junior championship to Johanna Wayne Rue 2nd, a very good senior yearling sister from the same herd.

In the bull classes the final decision among the seniors was pretty much a foregone conclusion. North Star Joe Homestead, owned by Hoesly of Wisconsin, has headed the aged class at several of the larger fairs this fall with Johanna Rag Apple Pabst, owned by J. E. Piek, doing the same for the three-year-olds. They did the same this time and made an interesting part of the senior championship competition. The three-year-old carries an exceptional depth of body and a better top and shoulder than the older entry but the latter is better at the head and does not carry quite as much flesh. A decision either way would have made few enemies. The judges put the three-year-old up, thereby keeping his record clear for two seasons. He was also grand champion and Sir Inka May, a junior yearling son of May Walker Ollie Homestead, Minnesota's great record cow, was junior champion.

Exhibitors—Agr'l School Farm, F. M. Ames & Son, Fred Albrecht, H. A. Brace & Sons, Baldwin Bros., Baird Bros. and C. F. Limbeck, Baird Bros., George Battus, Orin Bonkrud, Joe Bergs, J. L. Chrouser, Carnation Milk Farms, Christ & Hackbarth, Coon—Craig—Post—Jones, E. Crowell & Son, H. E. Dickinson, Emil Funk, John Farner, Fromm Bros., Mike Gau, L. V. Garvens, Fred Gurr, H. W. Halbach & Son and L. P. Halbach, D. W. Huenink, Henning & Ogilvie, Paul Helgesen, Clarence Holle, Heck Bros., Blatz Hoesly, Jefferson Co. Asylum, Albert Johanness, Anton Jacobson, Herman Klemme, Glen Keys, Paul A. Kayser, Gus Korth, Oscar Kiel, Eugene Katzman, Irwin H. Lichtenwalner, Philip Linker, Will Lohuis, Milwaukee Co. House of Correction, Wm. Moscrip and H. A. Brace, J. E. Mack, Milford Meadow Farm, Harold F. Marsch, W. G. Malcolm, Ernest Nass, Wm. Neumann, Osterkamp Bros., Progressive Holstein Club, J. E. Piek, Pabst Holstein Farms, John Piper, Theo. Pritzel, Wm. Piltz, Fred Rust, R. Rabenhorst & Son, Blasus Riederer, Grant Rice, Rust Bros., C. W. Symons, C. A. Schroeder & Son, H. F. Schroeder, C. F. Schroeder & Sons, Skaalens Home for the Aged, W. A. Sayre, Fred Siemers, Emil Sebastian, Tomah Indian Industrial School, Otto Toepfer, Toepfer & Krey, University of Wisconsin, Charles Vander Schaaf, Jas. Vande Loop, Fred Weiffenbach & Son of Wisconsin; E. M. Bayne, G. A. Casagranda, Detroit Creamery Co., H. Chris. Hansen, J. B. Jones, Lakefield Farms, Lakewood Farm, Dudley E. Waters and Martin D. Buth, Winnwood Farms of Michigan; Amos D. Bridges, Bridgport City Farm, Connecticut State Reformatory, Connecticut Agricultural College, C. P. Farran, Waldo S. Kellogg, Seth H. Moseley, F. M. Peasley, A. P. Thorne, of Connecticut; B. S. & S. H. Dragoo of Indiana; Glantz Bros. & Ben Glentz, Minnesota Holstein Co., Taylor & Christgau, of Minnesota; Hargrove & Arnold, Iowana Farms, of Iowa; Kilpatrick Bros. Co., Union College, University of Nebraska, Woodlawn Dairy, of Nebraska; Modern Woodmen of America Sanitorium of Colorado; South Dakota State College.



MADAM ARTIS WAYNE DENVER, SENIOR AND GRAND CHAMPION HOLSTEIN COW
OWNED BY JEFFERSON COUNTY ASYLUM, WISCONSIN

The awards follow:

Bull, 4 yrs. or over—1, Hoesly on North Star Joe Homestead; 2, Coon—Craig—Post—Jones on Walcowis Ollie Hijlaard; 3, South Dakota State College on Sir Aaggie Colantha Korndyke; 4, Garven on Parthenea Sir Beets; 5, G. Keys on Sir Johanna Pauline Ormsby. Bull, 3 yrs. and under 4—1, J. E. Piek on Johanna Rag Apple Pabst; 2, Hargrove & Arnold on King Pietertje Ormsby Piebe Jewel; 3, Modern Woodmen San. on Corwin Wimple De Kol Ormsby; 4, Lakefield Farms on Count Veeman Segis Piebe; 5, Agr'l School Farm on North Star Belle Oak Champion. Bull 2 yrs. and under 3—1, Iowana Farms on Tritomia Pietertje Ormsby Lad; 2, Wiffenbach & Son on King Pontiac Champion Parthenea; 3, G. Rice on Sir Tritomia Mercedes; 4, Carnation Milk Farms on Sandy Segis Walker Matador; 5, Katzman on Sir Ollie Lilith Ormsby. Bull, 18 mos., under 2 yrs.—1, Hargrove & Arnold on Triune Ormsby Piebe 27th; 2, Heck Bros. on Sir De Kol Ollie; 3, Carnation on Harvest Jewel Matador; 4, Modern Woodmen San. on Woodcraft Pontiac Champion Star; 5, J. Piper on Prince Creamelle Acme Vale. Bull 1 yr. and under 18 mos. old—1, Minn. Holstein Co. on Sir Inka May; 2, Jefferson Co. Asylum on King Mutual Fan; 3, Hargrove & Arnold on King Piebe 19th; 4, D. Peterson on Iowana Fayne Burke; 5, Carnation on King Burton Quoque. Bull calf, 4 mos. and under 1 yr.—1, C. Holle on General Homestead Mercedes; 2 and 3, Hargrove & Arnold on King Piebe 28th and King Pietertje Ormsby Piebe 50th; 4, Christ & Hackbarth on King Richmond Pontiac; 5, Heck Bros. on Ollie De Kol Ormsby.

Cow, 5 yrs. old or over—1, Modern Woodmen San. on Zwingara Segis Clothilde; 2, Waters & Buth on Bessie Fayne Johanna; 3, Iowana Farms on Lady Johanna Aaggie Fayne; 4, Agr'l School Farm on Barbetta Hengerveld De Kol; 5, Minn. Holstein Co. on Far Oaks Inka Homestead. Cow, 4 yrs. old and under 5—1, H. E. Dickenson on Dolly De Kol Tirania Fayne; 2, H. Klemme on Julia De Kol Pietertje Ada; 3, Vander Schaaf on Queen Johanna of Enterprise; 4, Jefferson Co. Asylum on Charity Canary Denver; 5, Carnation on Carnation Matador Addie Segis. Cow, 3 yrs. and under 4—1, Jefferson Co. Asylum on Madam Artis Wayne Denver; 2, Hargrove & Arnold on Dorothy Ormsby Piebe; 3, Minn. Holstein Co. on Maudlene Ollie Homestead; 4, Detroit Cry. Co. on Jessie Hengerveld Segis; 5, B. S. & S. H. Dragoo on Corwin Colantha Florence Ormsby. Heifer, 2 yrs. and under 3—1, 2, 3, Minn. Holstein Co. on May Pietertje Homestead Ormsby, Star Segis Homestead, and Miss Mechthilde Segis; 4, So. Dakota State College on Happy Home Daisy Johanna; 5, Carnation on Carnation Matador Mercedes Selah. Heifer, 18 mos. old and under 2 yrs.—1, Jefferson Co. Asylum on Johanna Wayne Rue 2nd; 2, Carnation on Carnation Pauline Matador; 3, Hargrove & Arnold on Pietertje Ormsby Piebe Mercedes; 4, Minn. Holstein Co. on Star Homestead Segis; 5, Jefferson Co. Asylum on Mutual Calamo Clothilde 2d. Heifer not in milk, 1 yr. old and under 18 mos.—1, Hargrove & Arnold on Miss De Kol Piebe; 2 and 5, Keys on Cosy Burke Ormsby and Miss Pietertje Ormsby Segis; 3, Iowana Farms on Iowana Homestead Segis; 4, Lakefield Farms on Lakefield Count Veeman Piebe. Heifer calf, 4 mos. old and under 1 yr.—1 and 2, Hargrove & Arnold on Triune Piebe Fobes and Neola Piebe Annie; 3 and 5, Carnation on Carnation Matador Lulu Walker and Carnation Matador Lulu Segis; 4, Uni. of Nebraska on Ormsby La Vie of Uni. of Nebr.

Cow under 4 yrs., having official yearly record—1, Jefferson Co. Asylum on Madam Artis Wayne Denver; 2, Minn. Hol. Co. on Maudlene Ollie Homestead; 3, Detroit Cry. Co. on Jessie Hengerveld Segis; 4, Iowana Farms on Iowana Ona Homestead De Cola. Cow 4 years old or over, having official yearly record—1, Waters & Buth on Bessie Fayne Johanna; 2, Iowana Farms on Lady Johanna Aaggie Fayne; 3, Minn. Holstein Co. on Far Oaks Inka Homestead; 4, Waters on Maryland Walker Colantha; 5, Uni. of Neb. No. Platte Substation on Clothilde Topsy King. A. R. cow with two of her progeny—1, Minn. Holstein Co. on May Walker Ollie Homestead; 2, Hargrove & Arnold on Miss Piebe Fobes; 3, Carnation on Tillamook Lola May De Kol; 4, Iowana Farms on Iowana De Cola Ollie.

Get of sire—1 and 2, Minn. Holstein Co. on get of Piebe Laura Ollie Homestead King and Sir Inka Superior Segis; 3, Jefferson Co. Asylum on get of Dutchland Creamelle Denver Prince; 4, Hargrove & Arnold on get of King Pietertje Ormsby Piebe; 5, Carnation on get of Matador Segis Walker. Produce of cow—1 and 5, Minn. Hol. Co. on produce of May Walker Ollie Homestead and produce of Star Segis Pontiac Superior; 2, Hargrove & Arnold on produce of Miss Piebe Fobes; 3, Carnation on produce of Tillamook Lola May De Kol; 4, Keys on produce of Lady Madge Pauline De Kol 4th. Exhibitor's herd—1, Hargrove & Arnold; 2, Modern Woodmen San.; 3, Jefferson Co. Asylum; 4, Carnation; 5, Minn. Holstein Co. Breeder's young herd—1, Hargrove & Arnold; 2, Carnation; 3, Jefferson Co. Asylum; 5, Agr'l School Farm. Dairy herd—1 and 3, Minn. Holstein Co.; 2, Carnation; 4, Hargrove & Arnold; 5, Jefferson Co. Asylum. State herd—1, Wisconsin; 2, Iowa; 3, Michigan; 4, Nebraska.

Senior and grand champion bull—Johanna Rag Apple Pabst. Junior champion bull—Sir Inka May.

Senior and grand champion cow—Madam Artis Wayne Denver. Junior champion cow—Johanna Wayne Rue 2nd.



FIRST PRIZE WINNING HOLSTEIN GET OF PIEBE LAURA OLLIE HOMESTEAD KING OWNED BY MINNESOTA HOLSTEIN CO.



JOHANNA RAG APPLE PABST, SENIOR AND GRAND CHAMPION HOLSTEIN BULL
OWNED BY J. E. PIEK, WISCONSIN

Underweight Girl Gains

Bernadette Keller, home demonstration agent of Vanderburg County, Ind., has been instrumental in establishing hot school lunches in several schools in that county. The Parent Teachers' Association purchased scales and children in the higher grades of high school were taught to do the weighing. Diet books were furnished the underweight children and special meetings held with these children and their mothers.

Perhaps the most outstanding child was one 12 years old who was 17 pounds underweight. She was listless and had a colorless complexion. Through the nutrition work she learned food values and the selection of her food was materially improved and the quantity increased. Milk was used instead of coffee and in four months this child had gained ten pounds and had improved mentally.

Fifteen counties are carrying on the county wide nutrition project given by the home economics extension makers of the Purdue University, and many children are being greatly benefited by the milk and hot school lunch which can be served in even one-room school buildings with limited equipment.—Purdue Experiment Station.

Every year I live I am more convinced that the waste of life lies in the love we have not given, the powers we have not used, the selfish prudence that will risk nothing, and which, shirking pain, misses happiness as well.—NAPOLEON HILL.

EDITORIAL COMMENT



A WESTERN farmer, some 30 years ago, visiting in Massachusetts, called upon a farmer and found him cutting a field of hay with a scythe. This method of making hay looked insignificant to this farmer from the Mississippi Valley, as well as slow and tedious. In the course of his remarks he said, "Out West we leave more hay in the fence corners than you will gather from this whole field." The Massachusetts farmer reflected for a moment and then replied, "Perhaps if you would gather the hay in your fence corners, you'd be able to pay the mortgages you owe us in Massachusetts."

There was a heap of meaning in the reply of the Massachusetts farmer. It has been our observation that the farmers who seem to make progress, who build good homes, and free their farms from mortgages, are the ones who find no job too small for them to do. They save everything the farm produces and apply themselves quite as much to little things as to the big ones. Many times the only profit obtained comes by saving the small crops which are many times wasted on the big farms. Let us not despise doing the small things, no matter in what industry we may be engaged.

CLOVER FAILURES

It is quite noticeable in many sections of the country that clover does not do as well as it did in early years. Earl Jones, extension soil specialist of the Ohio College of Agriculture, made a careful inspection of 80 hay fields in Northeastern Ohio and found only five with a good stand of clover. It was plain something was wrong with the soil. A great many soils that do not produce good clover are improved by an application of ground limestone, marl, or some other form of lime, and an application of phosphatic fertilizer and barnyard manure.

It is important also that the soils be well drained and that they be supplied with plenty of organic matter. That is, roots of plants, barnyard manure, green crops plowed under, etc. Sowing fields to clover and then securing only poor stands is a great waste. It is far better to devote five acres to the growing of clover or alfalfa on land properly prepared than to try to grow four times this amount on soils that are unsuitable or improperly prepared.

LEGAL BUTTER

The Internal Revenue Department has issued a new ruling pertaining to adulterated butter. It was forced to make some change in its ruling, for the Supreme Court has decided that butter containing 16% of moisture is not necessarily adulterated. The Internal Revenue Department has decided that in the future the test that will be applied in determining if butter is adulterated is not whether it contains 16% of moisture, but whether any process or material has been used with the intent or effect of causing absorption of abnormal quantities of water, milk, or cream. One who knows how butter is made will fully appreciate how busy the Department will be determining whether artificial means were used for increasing the moisture content of butter.

It seems to us the Internal Revenue Department has lost sight of the real purpose of the Adulterated Butter Act. It is clear that when foreign fats or foreign materials of any kind are added to butter it is adulterated. Moisture is a natural ingredient of butter. It varies from 12 to 16 or even more per cent. Why worry about moisture when Congress has enacted a law requiring legal butter to contain not less than 80% fat? The law is so written that if butter would contain 79.9% fat it is adulterated and subject to a tax.

For nearly twenty years some department of the federal government has been trying to determine what constitutes illegal and adulterated butter. We have grown impatient with their fiddling and fooling around. Thousands of dollars of the tax payers' money has been spent to determine the difference between tweedle-dee and tweedle-dum. It is to the advantage of the dairy interests that an honest butter product be put on the market, and it is generally held among all men who know butter that if it contains 80% fat the consumer is receiving an honest product. Then why should the Internal Revenue Department ignore the fat content of butter? Why don't its officials recognize it and use it for the enforcement of their ruling?

BETTER CHEESE IN WINTER

It was once thought that good cheese could not be made in winter. At the time of this conclusion, there was some good basis for it. Cows were not fed good rations in the early days. Most of them received just enough feed to carry them through the winter and very often they were thin and in poor condition in the spring. At that time most of the cows calved in the spring and they were well along in their period of lactation in the winter. These conditions did not provide for the production of good milk and the cheese made from it did not have the quality equal to that made during the months when cows were fresh and receiving grass as their rations.

It is different now. The great majority of cows in dairy sections receive fairly good rations. We still have men who are poor feeders, but the poorest feeders now are close if not equal to the best in the early days. A higher percentage of good cheese is made now when cows are stable fed, according to a report of the Market News of the Wisconsin Department of Markets. This may be explained by the fact that many cows now freshen in the fall instead of the spring; are fed good rations; and the milk is properly handled. The producer has better control of the quality of milk in winter than in summer. This season has been cold and wet in many of the sections devoted to extensive dairying. The milk flow has been good but the quality of cheese produced is not equal to that of drier years. We see no reason why the quality of cheese produced this winter should not be as good as produced in any winter.

LET'S GROW MORE TREES

The prices of farm products during and immediatly following the war stimulated production. Poor lands were brought under cultivation and the price of good land materially advanced. These two things were the chief causes of the agricultural trouble through which we have just passed. The facts are, too much poor land has been under cultivation and it has yielded little or no profit to those who have tilled it. It has produced a sufficient quantity of farm products to depress prices.

The desire for land stimulates land prices and raises them too high, if their income is compared to the income of other industries. In other words, the desire for land does not make it possible for the farmer to earn the same rate of interest on his investments as is enjoyed by other occupations. We cannot hope to curtail the desire for land and we do not know as it would be wise if we could. The desire to own land is fundamental to national stability. We can and should discourage and perhaps stop the settlement of land which is poor and unproductive. Too many states through their immigration and land service departments have and are encouraging settlers to occupy lands which should be devoted to forestry. It would be well for this nation if millions of acres of land could be withdrawn from crop raising and devoted to the growing of trees. Much land that is occupied at present is only profitable when agriculture is booming, when prices reach the levels they did in 1919. It is a pity that as a nation we have been so careless in our methods of settling land and have commercialized in too many instances the most natural and wholesome desire in all the world; namely, that of owning a piece of land. It is a crime to encourage men with their little families to settle upon much of the poor land that is now occupied or has been occupied.

In the past few years thousands of farms have been vacated. The lessons learned have been valuable, but have been extremely costly and severe and many of them were unnecessary if the state and federal authorities had encouraged the settlement of no lands except those which are productive. Our land policy, our methods of settling lands, can well be criticized, for it is our opinion that if a wiser and better thought out plan had been instituted, there would not be the wide fluctuation in farm prices and there would not be the occasion for agricultural depressions. Low prices of farm products force farmers to vacate these poor lands, but this tragedy might have been avoided if our land policy had been well organized; then it would not have been necessary for inexperienced people to pay the penalties that have been paid by trying to operate unproductive soils.

THE NATIONAL DAIRY EXPOSITION

The National Dairy Classic is a great educational institution; it is a post-graduate course for students, dairy scientists, dairy leaders, breeders, and dairy farmers. It has become a stupendous institution, requiring days to absorb its lessons. It sets forth the magnitude, development, and importance of the dairy industry in pictures, demonstrations, and exhibits which give to its visitors an opportunity to comprehend the meaning of the dairy cow to the people of this nation. It has become so large that the little man, the man of small knowledge and understanding cannot comprehend it.

It is so big that no building in the United States is capable of housing all its exhibits, demonstrations, and activities. This is extremely unfortunate and presents to its management a problem difficult of solution.

The National Dairy Exposition needs to be housed under one roof. The exhibit of dairy machinery at one place, the farm machinery at another, educational exhibits and demonstrations at still another, and the cattle several blocks from all other exhibits, does not make a proper setting for a National Dairy Show. The ideal arrangement would be to have the visitors pass through the various exhibits before they reached the cattle. We do not mean to have but one room for all the activities, but each department should be closely connected. We observed this year many people went straight to the cattle arena, but failed to visit any other department of the show. They missed many of its lessons. This is not good for them or for the industry. We cannot expect everyone to be equally interested in all phases of the exposition, but we would expect every visitor to see all departments and to get a general conception of the lessons they teach.

The dairy machinery exhibitors were well satisfied with their quarters and their results, but they were too far from the cattle, the educational features, and demonstrations of the Show. These men may feel that they have nothing to gain by being closely associated with the cow, but we caution them about being indifferent to their relationship to the creature which is responsible for their industry.

The Dairy Show Association has reached a rather critical period in its history, due to its magnitude and great number of varying interests. It should never be forgotten that the cow is the foundation and for any branch to stray far from her is likely to meet with disappointments and, perhaps, with failure.

What is needed is a permanent home for the National Dairy Exposition where all its forces and activities can be brought closely together and where its many lessons can be taught so that its visitors, no matter what may be their interests, will get a comprehensive understanding of the entire dairy industry.

Sealing Silo Doors

HOARD'S DAIRYMAN:—Here is something too good to keep. For years I have been trying different things and ways for sealing silo doors, from felt strips and building paper to clay. This time we used shorts made into a paste with water, then added enough linseed oil to make it work well with a shingle paddle. We spread this on the door frames, placed the doors, scraped off what mashed out, and we had an air tight door. It fills any crack or warp in staves to perfection, never gets dry while using, and is cheap. If any drops into silage, it will be eaten, so there is no waste.

Argonia, Kansas H. G.

Molasses Improves Unpalatable Feeds

In feeding the first cutting of alfalfa to dairy cows there are always lots of the stems they will not clean up. Would it be practical to put molasses on these? If so, about how much per cow? Most of our cows are large Holsteins.

Larned, Kans. M. B. T.

Unless you have a shortage of alfalfa hay, we would not advise methods which would encourage the cows to eat the coarser parts. By adding a little molasses to the alfalfa it would cause them to eat a larger portion of it. A pound or two a day of molasses may be fed to cows with good results. They like it and it seems to stimulate the appetite and it does improve unpalatable feeds. It is an open question, however, whether it is profitable to get the cow to eat so much coarse feed, especially if there is an abundance of alfalfa. It is the practice on Hoard's Dairyman Farm to feed this coarser hay to the mules and horses, for we feel the dairy cows will do better work if not forced to eat too much coarse material.

Some farmers grind the coarse alfalfa and mix a little molasses with it. This we consider a good practice and one that can be recommended if a person has the machinery for grinding. In the busy season it would hardly pay to grind hay, but in the winter, with lots of time, we believe it is a practice which can be profitably followed, especially if the hay is coarse.

Seeding Sweet Clover in the Fall

Would appreciate your giving us suggestions as to what you consider to be the best method in seeding an old pasture to sweet clover. Do you advise plowing or harrowing, or do you find it sufficient to merely seed on the grass without any further preparation of the ground? Do you advise seeding in the fall and do you recommend the scarified or unscarified seed for this particular purpose?

Jefferson, Wis. W. C. P.

If an old pasture is to be seeded to sweet clover, and particularly if it is on a piece of land that is not especially well suited to farming purposes so that it is not desirable to have it plowed, I would advise the use of the disk harrow on it this fall and then go on and seed unscarified sweet clover seed at the rate of 12 to 15 lbs. to the acre. In seeding the unscarified seed I should want to have a germination test on it and know the percentage of hard seeds. Some unscarified seed contains a large amount of seed that will grow immediately, that is, it is not hard seed.

The only advantage of seeding the unscarified seed in the fall is that the work can be done away from the pressure of spring work and, furthermore, it will give the seed the full advantage of early seeding the following spring. The freezing and thawing of early spring will usually soften the seed that lies near the surface sufficiently so that it will germinate. Where spring seeding is practiced the scarified seed should be used.

I should prefer to use the white blossom sweet clover for pasture purposes because of its longer season of growth and greater yielding capacity.

H. L. WALSTER.

North Dakota College of Agriculture.

Keeping Up Solids in Milk

What is the best kind of feed to give cows to keep them up in solids? Our cows vary in solids. The worst time seems to be from March 10 to grass; this summer when the grass is so wet and then other summers when the pasture was dry.

Morrison, Ill. G. D. H.

To feed cows on a good balanced ration and in quantities sufficient to supply them with all the nutrients they need for milk production and sustaining their bodies is the best and the only way we know of to keep up the solids in milk. Each cow produces a milk which is normal to her characteristics; that is, there is no system of feeding which will materially increase or decrease the total solids of milk. As intimated, when the cows are turned on pasture and the grass is very succulent and not very nourishing, there will be a decrease in the solids of milk. This change, however, is not permanent.

The way to avoid variations in the composition of milk is to feed the cow regularly and to make no violent changes in the system of feeding. For instance, when cows are turned on pasture in the spring, it is well to feed them grain, hay, and silage in the morning and continue to feed what may be termed the "barn ration" until the cows begin to get a sufficient supply of grass to sustain their needs. Again, when the pastures begin to grow short, they should be supplemented with silage, hay, and perhaps grain. When this is done, there will be no violent changes in the composition of milk and the total solids will be in keeping with the characteristics of the cow. You should bear in mind that violent changes in the feeds cause a fluctuation in the total solids of milk.

Tramping Silage a Waste of Energy

HOARD'S DAIRYMAN:—Two years ago I heard of several farmers who filled their silos without tramping and they reported practically no air pockets to cause moldy silage and better distribution of ensilage than the average bunch of 2 or 3 men will do with a distributor. I tried this plan last year and since then have talked with several that have followed it for several seasons with good results. To a few I have suggested this plan, but they argued that the leaves would all blow to one side and that they would not get as much in a silo.

We put on two lengths of distributor pipe and tie so ensilage forms a cone in center of silo. This cone will be about 6 feet high in a 14-foot silo and the leaves and corn will roll to the sides about like so much grain.

In finishing a silo we put in one man to level off the corn when it gets to top of silo. Silos filled this way settle very little more than when tramped. We finished filling a 14x40 silo Sept. 19, putting in 135 loads in comparison to putting in 120 loads in a 14x33 that was well tramped and refilled. I suppose there are 20 silos within a few miles of me that have been filled this way and there will be a lot more this year. If we can save two to three men every day a cutter is running and get as good results, we are saving that much expense.

Madison, Wisconsin. R. G.

This practice of filling has been advocated for some time by certain people and has been vigorously opposed by others. We confess to faith in tramping. What has been the experience of others who have tried the methods described above? Is it as satisfactory as tramping?

Trouble in Churning

We have a herd of Jersey cattle and have been making butter for the last three years. Our butter is a quality product and consequently sells at a premium.

Until June, 1924, we experienced no trouble in churning. Since then it has often taken as long as three or four hours to churn. (Before 20 to 30 minutes.) What is causing the trouble? We skim cream as before to about 35%. After the cream has ripened it is put into the ice box until churning. We churn twice a week. If we warm cream before churning, the butter is too soft to print and also of a poorer quality. We have tried sterilizing all containers and churn, but without results.

Our cows are on sweet clover pasture and in addition are fed a grain mixture of crushed corn, bran, and oil meal according to production. They have salt at all times. The trouble in churning seems to be due to the fact that the cream will not thicken.

Mascoutah, Ill. R. G. E.

Years ago before the introduction of the little hand separator when cream used to be skimmed under the gravity method, many complaints used to come to the Dairy Department of the Iowa State College, when I was in charge of the same, on trouble that certain dairymen had in churning. In most of these cases, the trouble was due at that time in skimming too much milk with the cream or having too thin cream. Thus, the milk would act as a cushion preventing the fat globules from uniting but with the introduction of the centrifugal separator very few complaints were received concerning the churning of butter.

As the gentleman in question states they have cream testing about 35%, the question of excessive milk or serum in connection with the fat would have no effect in that particular case. There is nothing in the feed that would in any way affect the churnability of the cream.

He states 60% of the cows are old milkers or cows that are well advanced in the period of lactation. I think this is partly responsible for the trouble he is having in churning. As the cows advance in the period of lactation, the fat globules become smaller and the cream becomes more viscous. Hence, churning is not brought about as readily as where cream is separated from the milk of cows not too far advanced in the period of lactation.

I would suggest that he take some milk from the fresh cows and separate the cream from the same and let the skimmilk sour and add five or ten per cent of this sour skimmilk to his fresh cream. This starter will, of course, ripen the cream and put it in a condition where it will churn more easily. Also, do not fill the churn more than half full. Churning is brought about by concussion or force. Where there is not too much cream placed in the churn, the drop is greater and you increase the concussion which causes churning to be brought about more quickly.

Illinois. G. L. MCKAY.

Drying and Storing Seed Corn

Because of the many inquiries coming to Hoard's Dairyman at this time concerning the seed corn supply for the 1925 corn crop, a few definite factors to be considered in handling seed corn are important.

Experience has taught that the best seed corn is that which has been allowed to ripen naturally in the field, then selected and further dried and finally stored in a dry place. The condition of the maturity of the corn crop, especially in the upper corn belt section this season, makes it necessary for every farmer to give some special attention to drying and storing seed corn if the 1925 supply is to be of satisfactory quality.

There are three definite and important steps to be observed and practiced if good seed corn is to be guaranteed. These are: first, getting the best seed corn out of the field before heavy frosts occur; second, protecting the seed from freezing and thoroughly drying it; third, storing the seed in a dry place after it is thoroughly dry.

The time of getting the best seed corn out of the field before heavy frosts occur varies from year to year according to maturity conditions and temperature changes. Corn selected in the beginning dent and hard dough stages will make good seed if properly cared for. It is better if weather conditions permit of a more advanced maturity. This is not always possible, as is the case this year. Making the best of what one has to work with applies in the seed corn situation.

The second factor, that of protecting the seed after it comes from the field and thoroughly drying it, is now a very important piece of work for farmers to take care of. Seed corn should be dried fairly rapidly to retard and prevent mold and to get the corn dry enough to withstand damage by freezing. Most seed corn as it came from the field this fall contained more than 30 per cent moisture. Before this corn is safe from the effects of the hard winter freeze the moisture must be reduced to 12 per cent or less. There is no best way to dry seed corn. The really important thing is to get it dry. Some farmers may be equipped to help the drying process by using artificial heat and even in some cases forced ventilation. The majority of farmers, however, depend on natural ventilation for drying corn. The danger point here is that seed corn will be subjected to heavy freezing before it is thoroughly dry. Protect while drying is going to be a good business practice this fall.

The thorough drying of seed corn before storage for the winter makes the selection of a good storage place a little less difficult, although by no means does it lessen the importance of good storage.

In a series of tests made by Mr. Norgord in 1909-10, published in Wisconsin Circular No. 58, some very definite results were obtained when comparing drying and storage methods. From tests made on 16 kiln dried samples, 8 furnace room samples, 112 room above kitchen samples, and 75 attic samples, 211 in all, an average germination of 88.3 per cent and stand of 83 per cent was secured. As compared with this, 139 samples that had been stored under porches, in granaries, barns, tool houses, corn cribs, in shock during winter, windmills, and outside walls of buildings gave an average of 51 per cent germination and 57.5 per cent stand.

Drying and storing seed corn is important right now.

Hoard's Dairyman

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A. J. GLOVER, P. C. BURCHARD

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Coming Events

Oct. 21-23—Wisconsin Buttermakers' Asso. meets at Chippewa Falls, Wis.

Nov. 1-8—Pacific International Live Stock Exposition. Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Sale Announcements

Oct. 23—Guernseys. Locust Lane Farm, Medford, N. J.

Oct. 23—Holsteins. Columbia County Sale, Portage, Wis.

Oct. 26—Wells & Smith Dispersal Sale, 26 Jerseys at Prairie Farm, Wis. Hugh A. Feagle, Barron, Wis., Sales Mgr.

Oct. 31—Holsteins. Sparta, Wis. Geo. J. Weiner, Sec'y.

Nov. 1—Holsteins. Washington County Breeders and Oscar W. Hanson Dispersal at White Bear, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Mgrs.

Nov. 3—Barron County Jersey Breeders' Association Consignment Sale, at Barron, Wis. Hugh A. Feagle, Barron, Wis., Sales Mgr.

Nov. 7-8—Holsteins. Hanson—Hackney Holstein Sale at St. Paul, Minn. Twin City Pedigree and Service Co., Minneapolis, Sale Mgrs.

Nov. 14—W. W. Marsh Cherub Guernsey Sale.

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, OCT. 8—The address of Hon. Herbert Hoover, Secretary of Commerce, to the American Dairy Federation at the National Dairy Exposition, has attracted wide attention among dairy producers, as well as in the trade lines of the industry, as evidenced by demands made here for copies of the speech in full.

At the dairy and farm organization offices here, the Hoover address at Milwaukee is taken as an indication of a sincere desire on the part of the Department of Commerce and perhaps even reflecting the spirit of the whole administration, to extend help to co-operative marketing organizations. The vehicle which has been chosen by Mr. Hoover, and which was accurately described in his address, is the Capper—Williams bill, now pending in both the House and Senate, ready for action when Congress resumes work.

The Capper—Williams bill has a long and interesting history, too long to tell here. The author of the framework of the bill is Congressman Williams of Michigan. To this framework a number of additions have been made since it was first introduced. One of them—the most interesting—is that part which calls for the organization of distributor co-operatives, the terminal marketing group of which Secrteary Hoover spoke at Milwaukee. Then the bill provides that these distributors and the producers unite in the selection of men to take positions on the governmental Board of Control, which the bill sets up. After this board is organized the operations of all co-operatives come under its jurisdiction, instead of as at present, when under the terms of the Capper—Volstead act all co-operatives are under the direct jurisdiction of the Secretary of Agriculture, unless they are found to be acting in violation of law, when their cases would be referred to the Department of Justice.

Another bill introduced last session is the Curtis—Aswell bill, known as the Yokum bill. Secretary Hoover, by implication, opposes this measure. Several others were introduced, including one at the very end of the session by Congressman Tincher of Kansas, which is a modest, moderate bill, leaving all co-operatives definitely under the Secretary of Agriculture, but providing a voluntary system of registration and inspection and reports.

Congress will undoubtedly take the whole grist of these bills up for hearings and action early in the session.

Charles W. Holman, secretary of the National Federation of Milk Producers, states that this organization adopted a very significant resolution dealing with its position on the matter of government assistance to co-operatives while at their meeting in Milwaukee. This action was taken a day or so prior to the address of Secretary Hoover. The substance of their resolution is as follows:

"This federation is opposed in principle to all governmental subsidies to private business and to further governmental control of co-operatives through boards or commissions."

This is not an exact quotation, but is given by Mr. Holman as the substance of the statement. He states that the experience of the milk and butter co-operatives now federated into this organization, which constitutes those organizations whose members have had the experience and the years of effort, has shown that the only lasting benefits which co-operatives receive come from what their own members give to the organization. Present legislative efforts, he believes, while conceived in a spirit of real friendliness and desire to help, are more likely to hurt than to help. Co-operatives, he states, as a rule, can not benefit from governmental activities except as the results of governmental research into methods and the application and extension of present work in grading, standardization, and the inspection of interstate shipments.

Two interesting matters of dairy products standards are now before the Joint Committee on Standards and Definitions for decision, the ice cream standard which has been discussed a number of times, and the standard for sweet cream butter. The tentative definition on the latter subject, now put out for discussion and comment, limits the cream from which the butter can be made, to carry this name, to two-tenths of one per cent of acidity. The next meeting of the committee will probably be in January, when one or both these matters may come up for final decision.

The Dairy Markets section of the Department of Agriculture is watching the foreign market situation very carefully, realizing that relief through exports would greatly modify the possible trend of the seaboard markets for butter in this country during the next few weeks. Comment has already been made as to the fact that several shipments of butter have been made to London. It is reported that all of this has been of high grade stock, and a few of the shipments have been made direct from Wisconsin and Minnesota points to England. Close market observers believe that in these shipments and in the continued strength of the British market is found a real reason for the rather better market situation of the past few days.

It is pointed out here that the same weather conditions for the past six months which resulted in a world shortage of wheat and high world prices for wheat, had the same results in producing a shorter supply of butter than usual in countries other than the United States. Here the weather which gave us a big wheat crop also brought out a big butter production. There is the germ of a possible world butter forecast in this suggestion that is worth developing.

The National Dairy Union is in receipt of copies of official correspondence between J. D. Mickle, Dairy and Food Commissioner of Oregon, and Dr. Harvey W. Wiley which shows that in a "Voter's Pamphlet" issued by the Secretary of State in Oregon, and which contains arguments pro and con on questions which are coming up at the coming election there, some one has apparently deliberately mis-quoted Dr. Wiley on the subject of the food value of oleomargarine. The Oregon oleomargarine law is subject of a referendum vote this year, and this single false quotation from Dr. Wiley may well be pivotal in this contest. It is as follows, quoted from the "Voter's Pamphlet":

"In my extensive analyses of butterine and oleomargarine, nothing objectionable or injurious to health has been found. Oleomargarine as made today is pure, palatable, and more nutritious than butter."

(Signed) DR. H. W. WILEY.
Father of the Pure Food Act.

Asked definitely by Commissioner Mickle if he had made any statement to this effect, Dr. Wiley replied:

"I never have made any statement of the character quoted by you during the whole course of my life. * * * * * * * * * I have never declared on any occasion that 'Margarine is more nutritious than butter. In fact I have always taken the opposite position, provided the butter was palatable and pure, which unfortunately is not always the case."

The quotation in question was used in the pamphlet referred to by the oleomargarine committee, which has charge of the fight against the oleomargarine law in Oregon, which is to be voted on this Election Day.

Building Up a Herd

HOARD'S DAIRYMAN:—Some time ago I saw in your journal an inquiry from one of your readers in regard to the building up of a dairy herd. Your reader had seen somewhere a calculation that by starting in with two cows it was possible for the natural increase of the herd to bring the number of head up to 40 in 6 years. I have seen this same table myself and my own experience may show a considerable contrast which may be of interest to some of your readers.

In the early part of 1920 I started to build up a small herd of pure-bred Jerseys. At that time I bought two cows, both being in calf. Since that time I have to date bought nine more at various times, some of which I have sold to other breeders or to the butcher. The progeny of these cows to date amounts to 22 head, of which 14 were bulls and 8 heifers.

Of the original two cows I bought, one died after I had her for 2 years. She had two bull calves and one heifer. The other I still have and she is the best cow of the herd, having twice won the silver medal of the American Jersey Cattle Club for production and is now on her third test and should easily qualify for the gold medal. She had 3 bull calves and one heifer during the four years since I bought her. In other words, starting with two cows four years ago I would only have three today if it were not for the other cattle I have bought. Quite some contrast to the dream presented as a possibility of the herd of 40 cows in 6 years from two foundation cows.

I believe the presentation of such tables even though given as theoretical are apt to give such false impressions as to prove a great disappointment to some who may conceive that the figures are even approximately correct.

New York. J. A. R.

Idaho Short Course

The University of Idaho presents two terms of a short course in dairy manufacturing. The first term begins October 27 and closes January 17. It will cover, primarily, cheese and ice cream making. The second term begins January 19 and closes March 27. It will be devoted largely to butter making and market milk. Further details may be secured by writing Dairy Department, University of Idaho, Moscow, Idaho.

Satisfactory Progress

The doctor entered the grocery store. "How's the cheese today?" he asked.

"Well, it's a bit stronger, doctor," replied the grocer.—The Progressive Grocer.

Guernsey Awards at the National

Exhibitors:—Walter Alexander, Sanford Anderson, A. P. Bean, B. Behrens, C. J. & W. A. Connell, Julius Clausing, Louis Clausing, Albert Fruit, F. E. Fox, Sr., F. E. Fox, Jr., Clinton Griswold, E. W. Groeler, A. R. Hoard, J. M. Harvey, J. H. Hickcox, Albert Halvorson, Albert H. Hyzer, Anton Hollen, Catherine Jorgenson, Jones Bros. & Pritchard, Goodhand Kingston & Son, Geo. Konrad, George Kiel, A. M. Kailing, Wm. Larsen Canning Co., M. B. Lee, Geo. McKerrow & Sons Co., Elton Morgan, W. A. Munn, L. P. Martiny, Alfred Morawetz, Adolph Nuttleman & Son, Helen Owen, Ed. Pfrang, W. D. James, A. J. Plowman, Glenn C. Reynolds, F. J. Rueping, Wilbur Reed, Otto Rogney, Henry Riemer, George Reitz, Lorn Retzloff, Everette Smithback, W. H. Sullivan, M. A. Seybold & Sons, Seymour Bros., Tarr Bros., Chas. Tomfohrde, Ed. T. Williams, Elmer Weldon & Son, E. R. Whitcomb, Young & Rhymer, of Wisconsin; Emmadine Farm, (J. C. Penny, Owner) of New York; Joseph Golinvaux, Mountain Bros., Marple Mountain, W. W. Marsh, of Iowa; W. S. Jackson of Maryland; Simon Kruse, C. E. Swenson & Son, D. D. Tenney, of Minnesota; Cyrus H. McCormick, John L. Waddel, Geo. B. McKerrow & Son, of Illinois; E. S. Person of North Dakota.

The awards follow:

Bull, 4 yrs. or over—1, A. L. Hyzer on Lassie Boy of Prairie; 2, Joseph Golinvaux on Memento of Highland Place; 3, Swenson & Sons on Floridale General Washington; 4, W. A. Munn on May King's Duke of Waukesha; 5, F. E. Fox on Aviator of Edgemoor. Bull, 3 yrs. old and under 4—1, Emmadine Farm on Shorewood Resolute; 2, D. D. Tenney on Cherub's Royal Leader of Shorewood; 3, F. J. Reuping on Corium Princess Carrie's Champion; 4, L. P. Martiny on Proud Prince of the Prairie; 5, W. W. Marsh on Gold Star of the Prairie. Bull, 2 yrs., old and under 3—1, Mountain Bros. on Kitchener's Cavalier of Iowanola; 2, W. D. James on Silver Gem's King of James Farms; 3, Emmadine Farm on Florham Abbott; 4, Young & Rhyme on King Lewis of Orradale; 5, E. S. Person on Imogene's Prince of Iowanola. Bull, 18 mos. and under 2 yrs.—1, Larsen Canning Co. on Rose's Boy of Fern Dell; 2, Mountain Bros. on Betty's Master of Iowanola; 3, Emmadine Farm on Banner Rose's Wrangler; 4, McKerrow & Sons on Whimsome Lady's Ultra; 5, Elmer Weldon & Son on Sunny Mead's King. Bull, 1 yr. and under 18 mos.—1, Marsh on Cherub's Prospect of the Prairie; 2, Reuping on Corium Cherub's Edgar; 3, Mountain Bros. on Dorothy Marie's Challenger of Iowanola; 4, Glenn C. Reynolds on Goldemar of Koshkonong Place; 5, Tenney on Cherub's Royal Herald of Shorewood. Bull calf, 4 mos. old and under 1 yr.—1 and 4, Tenney on Cherub's Contender of Shorewood and Cherub's Royal Challenger of Shorewood; 2, Marsh on Gay Lad of the Prairie; 3, Reuping on Corium Ladock Prince's Forest; 5, Emmadine Farm on Valiant's King.

Cow, 5 yrs. old or over—1 and 5, Marsh on Honey Bloom of the Prairie and Marsh Marigold of the Prairie; 2, Tenney on Bell Buoy's Golden Lassie of City View; 3, Emmadine Farm on Moss Raider's Primrose; 4, Reuping on Polly of Hillsdale. Cow, 4 yrs. old and under 5—1 and 3, Emmadine Farm on Beda's May Rose of Island Farm and La Noce's Beda of Island Farm; 2, Marsh on Honeydew of the Prairie; 4, Person on May Rose Glory of Minot; 5, Larsen Canning Co. on Flossie of Bloom Farm. Cow, 3 yrs. old and under 4—1, 2, and 4, Emmadine Farm on Mixter May Princess, Foremost's Princess and Foremost's Queen; 3, Marsh on Peach Blossom of the Prairie; 5, Nuttleman & Son on Dairymaid's Dolly of La Crosse Valley. Heifer, 2 yrs. old and under 3—1 and 3, Tenney on Cherub's Lassie of Shorewood and Cherub's Deanie of Shorewood; 2 and 5, Marsh on True May Rose of the Prairie and Golden Queen of the Prairie; 4, Emmadine Farm on Daylo Yuletide. Heifer, 18 mos. old and under 2 yrs., bred by exhibitor—1, Reuping on Corium Elizabeth's Dolores; 2, Tenney on Cherub's Procris of Shorewood; 3, Marsh of Lilac of the Prairie; 4, Mountain Bros. on Dorothy Ilene of Iowanola; 5, Simon Kruse on Radisson's Queen of the Roses. Heifer, not in milk, 1 yr. old and under 8 mos., bred by exhibitor—1, Martiny on Proud Prince's Vernie of Chippewa; 2, Reuping on Corium Cherub's Dolla's Erma; 3, Marsh on Rose Petal of the Prairie; 4, Person on Cherub's Bettina of Minot; 5, Mountain Bros. on Cherub's Pearl of Iowanola. Heifer calf, 4 mos. old and under 1 yr.—1 and 3, Emmadine Farm on Foremost's Aurice and Resolute's Red Rose; 2 and 4, Marsh on Gladiolus of the Prairie and Sweet May Rose of the Prairie; 5, Tenney on Cherub's Dream of Shorewood.

Cow, under 4 yrs. old, having official yearly record—1 and 2, Emmadine Farm on Mixter May Princess and Foremost's Princess; 3 and 4, Marsh on Peach Blossom of the Prairie and True May Rose of the Prairie; 5, Clinton Griswold on Guernseydale Barbi. Cow, 4 yrs. old or over, having official yearly record—1, Tenney on Bell Buoy's Golden Lassie of City View; 2 and 5, Marsh on Honeydew of the Prairie and Marsh Marigold of the Prairie; 3 and 4, Emmadine Farm on Beda's May Rose of Island Farm and Moss Raider's Primrose. A. R. cow—1, Larsen Canning Co. on Flossie Gypson; 2, Martiny on Dairydette's Verena of Chippewa.

Get of sire—1, Tenney on get of Ladysmith's Cherub; 2, Marsh on get of Cherub's Prince; 3, Emmadine Farm on get of Langwater Foremost; 4 and 5, Mountain Bros. on get of Cherub's Winner and Cherub's Challenger. Produce of cow—1, Marsh on produce of Golden Cherry of Prospect Farm; 2, Emmadine Farm on produce of Yeoman's Mixter Diana; 3, Tenney on produce of Cherub's Promise of Shorewood; 4, Larsen Canning Co. on produce of Flossie Gypson; 5, Person on produce of Glencoe's Rose of Maple Hill. Exhibitor's herd—1, Tenney; 2, Marsh; 3, Reuping; 4, Mountain Bros.; 5, Person. Breeders' young herd—1, Reuping; 2, Marsh; 3, Tenney; 4, Mountain Bros.; 5, Martiny. Dairy herd—1, Marsh; 2, 3, and 5, Emmadine Farm; 4, Person.

Senior and grand champion bull—Shorewood Resolute. Junior champion bull—Cherub's Contender of Shorewood.

Senior and grand champion cow—Mixter May Princess. Junior champion cow—Corium Elizabeth's Dolores.

Brown Swiss Awards at the National

Bull 4 years old or over—1, Minette and Son on Emmett of Lake View; 2, Drollinger on Edgard L.; 3, Hull Bros. Co. on Carl the 13th; 4, Hess on Schilling's Reuben. Bull 3 years and under 4—1, Marshall and Son on Prince of Meadow Green; 2, Bower and Son on Edgard C. Bull 2 years old and under 3—1, Bower and Son on Elsie Nick A of Bowerhome; 2, Marshall and Son on Buster Brown of Osseo; 3, Minette and Son on Oliver Twist of Far View; 4. Schmid on College Lee; 5, Hull Bros. on Dale of Lake View. Bull 18 months and under 2 years—1, Marshall and Son on Ursula's Stasis; 2, Drollinger on James Edgard of Melrose; 3, Hull Bros. on Lottie Prince of Lake View; 4, Bower on Bonick of Bowerhome; 5, Minette on Delbery of Far View. Bull 1 year and under 18 months—1, Schmid on Maiden's Vronicka's College Boy; 2, Bower on College Boy of Bowerhome; 3, Minette on Believe's Grandson 3d of Far View; 4, Hess on Cato; 5, Hull Bros. on Beaut of Lake View. Bull calf 4 months old and under 1 year—1, Marshall on Styx Stasis 3rd; 2, Drollinger on Jim Larson; 3, Lila Schmid on Maiden's Master; 4, Minette on Lamark's Monte of Far View; 5, N. C. Schmid on Nelliemilitor.

Cow 5 years old or over—1, 3, and 4—Hull Bros. on Swiss Valley Girl 7th, Swiss Valley Girl 8th, and Swiss Valley Girl 10th; 2, Bower on Betty of Lake View; 4, Drollinger on Rose of Valley Grove. Cow 4 years and under 5—1 and 2, N. C. Schmid on Mollie's Nellie and Insurance Rose; 3, Jensen on Nona A; 4, Minette on Betty of Far View. Cow 3 years and under 4—1, Marshall on Fairview Valley M; 2, Hull Bros. on Nellie F Beaut; 3, Bower on Duchess on Bower Farms; 4, Minette on Doris Believe of Far View; 5, N. C. Schmid on Alpha Belle. Heifer 2 years and under 3—1, Minette on Believe Darling of Far View; 2 and 4, N. C. Schmid on Brown Ethel and March Molly 3d; 3, Hull Bros. on Margaret of Lake View 4th; 5, Marshall on Fairview Styx M. Heifer 18 months and under 2 years—1, N. C. Schmid on Marvel M 2d's Hazel; 2, Hull Bros. on Irene of Lake View; 3, Marshall on Stasis Rosalind; 4, Minette on Nagilla's Girl of Far View; 5, Bower on Elsie A of Bowerhome. Heifer not in milk 1 year old and under 18 months—1, Hull Bros. on Militor Emma of Lake View; 2, Drollinger on Carl's Lydia D. S.; 3, Bower on Betty A of Bowerhome; 4, N. C. Schmid on May of Meadow Green; 5, N. C. Schmid on Mernervie of Meadow Green. Heifer calf 4 months and under 1 year—1, Hull Bros. on Dale Valley Girl 8th; 2, Bower on Belle Beauty of Bowerhome; 3, Lila Schmid on Browney A's Last; 4, Drollinger on Edgard C's Queen; 5, Hull Bros. on Sylvia of Lake View. Cow 4 years old or over having official yearly record—1, 3, and 4—Hull Bros on Swiss Valley Girl 7th, Swiss Valley Girl 8th, and Swiss Valley Girl 10th; 2, Bower on Betty of Lake View; 5, N. C. Schmid on Cinnamon's Maiden. Cow under 4 years old having official yearly record—1, Hull Bros. on Nellie F. Beaut. A. R. cow with 2 of her progeny—1, Minette on Believe; 2, N. C. Schmid on Cinnamon's Maiden; 3, Hull Bros. on Nellie F. Beaut.

Get of sire—1, Hull Bros. on Get of Reuben; 2 and 5, N. C. Schmid on Get of Vronicka's College Boy; 3, Bower on Get of Nick's Prize Master; 4, Marshall on Get of Stasis Boy. Produce of cow—Hull Bros. on Produce of Swiss Valley Girl; 2, Bower on Produce of Elsie 4th of Lake View; 3, N. C. Schmid on Produce of Cinnamon's Maiden; 4 and 5, Marshall on Produce of Styx 2d and Produce of Styx. Exhibitor's herd—1 and 5, Bower; 2, Marshall; 3, Hall Bros.; 4, M. C. Schmid. Young herd—1, Marshall; 2, Bower; 3, Schmid; 4, Hull Bros.; 5, Minette. Dairy herd—1, Hull Bros.; 2, Bower; 3, Minette; 4, N. C. Schmid; 5, Marshall.

Senior and grand champion bull—Prince of Meadow Green. Junior champion bull—Styx Stasis 3d.

Senior and grand champion cow—Swiss Valley Girl 7th. Junior champion cow—Marvel M 2d's Hazel.

You and I are but cogs in one of the tiny wheels of the mechanism of Nature. Yet certain things are required of us and we must do our part.

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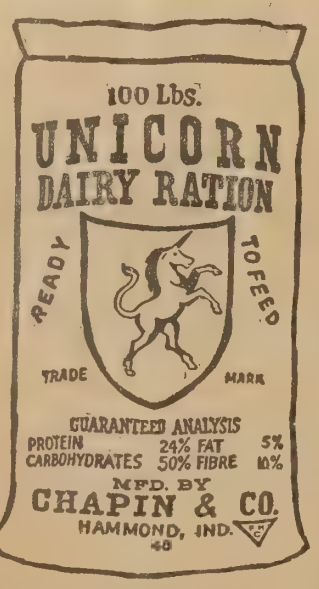
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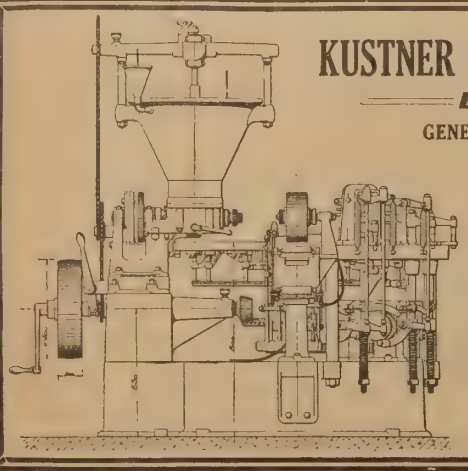
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Hand driven machines for small output. Automatic machines for great output.
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Please ask for quotations.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

A Flight With Wing

HOARD'S DAIRYMAN:—For twelve years now I have followed your paper and read it more or less all the while, and I must admit that I never had the pleasure (?) of reading an article of such magnitude as the one entitled "Contentment on the Farm" of September 19th.

I would be willing to bet the fellow that wrote it, Charles B. Wing, was on some flight when he did this stunt; also I would put up a year's subscription against two that the flighty Mr. Wing does not make his living by farming but rather makes it by farming the farmer. Now let's consider this article.

In the matter of food, the idea seems to prevail, according to Mr. Wing's flight, that the country man lives to eat. That is not so. He eats to live just as the city man does.

Food for the mind comes as much or more from contact with other men as from contact with great libraries. Also, if a man rises at four in the morning and is milking three times a day, delivering his own milk, as I do, doing his own dairy work, caring for his cattle and chickens without any help and at the same time caring for his cattle and barns and maintain a production of 50 gallons a day, when, I ask the flighty Mr. Wing, are we countrymen going to get the time to read, etc.?

Again on the food for the soul, Wing says he looks out on the first of May, etc. If he was a regular farmer and not an agriculturist he might by chance look out on the first or even the 15th of January or February and see it snowing and blowing with a low temperature and ten long, hard, cold miles of snow-blown road. He would get a soul full of food on a few trips like that so that he would not have to wait till the "first day of May".

Wing takes another flight on rest following the cows. Yesterday I followed a heifer in heat at the end of a ten-foot rope and for ten years I have followed the four- and three-times-a-day milking. In both cases there seemed to be little rest following the cows.

This kind of tommyrot is all right for the agriculturist, but does not go very well with the farmers.

I always thought you prided yourself on putting out a farmers' paper.

Think it over.

Maine. A. W. JONES.

No Overproduction

HOARD'S DAIRYMAN:—Why advocate idleness in children or grown-ups? Is it not true that humanity lives by the sweat of its brow? All we have is produced by labor. If we do not (sow) *labor* neither shall we reap. Inasmuch as organized labor can force the idle rich to work by shortening its hours and raisings its wages well and good, but when they take from other workers what they justly earn it is nothing short of organized theft, just as war is organized murder.

There is not overproduction. If so, why do some starve? Why are some (the workers and poorer classes) in want of the common comforts of life? It is not always because of the waste of the rich but because some, in fact many, able laborers refuse to produce their just portion and because of unequal distribution. The greater the production, the greater the bounties of the people of the world. Any slacker takes from the grand total. Much labor is directed in wrong channels because we have attained no better adjusted system or we do not utilize the product properly. Overproduction is a myth of the gambler and the lazy. *There is no overproduction.*

Michigan. R. W. STEED.

Will "Pittsburg Plus" Decision Affect Prices

HOARD'S DAIRYMAN:—Since the Federal Trade Commission issued its recent decision in the "Pittsburgh Plus" case, a great deal of publicity has been given to the statement that "Pittsburgh Plus" "adds thirty million dollars annually to the cost of steel products bought by farmers in eleven middle western states."

The inference from this statement is that "Pittsburgh Plus" has added and is continuing to add heavily to the cost of farm machinery and that, because of the decision of the Federal Trade Commission, farmers could reasonably expect a material reduction in the price of farm inplements. An examination of the fact shows this not to be the case.

The statement is misleading and is not based on the present situation in the steel industry. Since October, 1921, there has been no "Pittsburgh Plus" quotation on bars, shapes, and plates. Pig iron, of course, is not steel and has never been quoted on a "Pittsburgh Plus" base. Bars, shapes, and plates and pig iron constitute by far the main iron and steel products purchased for the manufacture of farm implements, and farm machinery manufacturers who have been interviewed say that saving brought about by the discontinuance of "Pittsburgh Plus" rates in October, 1921, has already been reflected in farm machinery prices prevailing since that date.

Commodities on which "Pittsburgh Plus" prices still obtain, include wire, wire products, sheets, tin plate, and steel pipes, and of these very little is used by farm machinery manufacturers.

For example, a manufacturer of heavy farm machinery, such as threshers, tractors, etc., near Chicago, advises us that on all its purchases in 1923 approximately only 125 tons of material came under the "Pittsburgh Plus" price quotation, and the "Pittsburgh Plus" increase on this material amounted to less than $600.00 and this amounted to less than 7c per machine.

The testimony on which the increased cost to the American farmers were based was given prior to October, 1921, but inasmuch as the steel companies since then voluntarily relinquished "Pittsburgh Plus" on most of the material used in farm machinery, the conditions set forth in the testimony do not apply at the present time.

As it now stands, elimination of "Pittsburgh Plus" cannot materially affect the price of farm machinery. If, however, the decision of the Federal Trade Commission should be applied and overruled, there would be nothing to prevent the reinstatement of the "Pittsburgh Plus" quotations on bars, shapes, and plates, and because of this situation, farm machinery manufacturers are hopeful that the decision of the Federal Trade Commission will not be appealed or if appealed, will be sustained.

Illinois. N. A. M.

Grade Sale at the National

The sale of grade cows with cow testing association records at the National Dairy Show comprised 83 head, including 14 bred heifers having dams producing over 350 lbs. fat in a year. These cows had an average yearly production record of 379 lbs. fat and they sold for an average of $123 each. At the National Dairy Show in St. Paul two years ago, 35 head of grade cows, averaging 420 lbs. fat, sold for an average of $151 each.

Buyers were not plentiful and with a few exceptions the bidding was not spirited. Most of these cows were sold at bargain prices and the new owners may be happy in contemplating that they cost them less than the cows would have sold at home to the neighbors of the consignors. In fact, a large number of them did stay in Wisconsin.

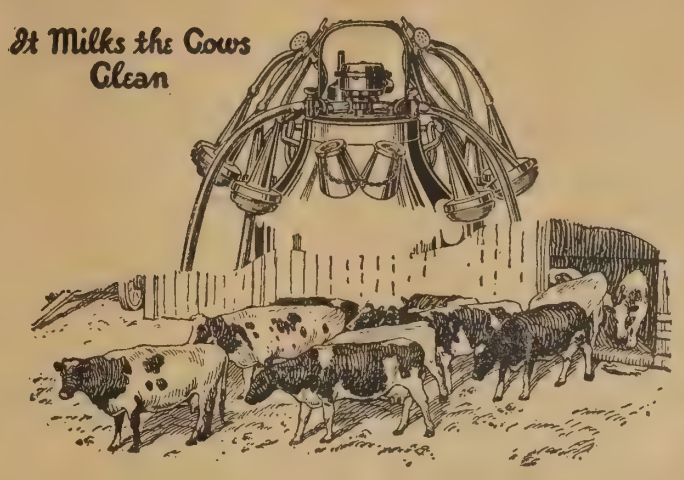
There were possibly two things that militated against the sale. Reluctance of bidders because of fear of not getting full carloads and the fact that a very considerable number of the cows were six to eight years old. Every cow sold was straight and right in every way, and were either heavy in calf or recently fresh. With butter at only 33 cents a pound, these cows would more than pay for themselves within the next twelve months.

The former owners of these cows were reluctant to consign them to sale and only did so out of loyalty to the cow testing association idea and for the purpose of advertising their several localities. However, although they have lost money in many cases, they have done a good piece of work and have distributed good cows to many communities as examples of profitable production through testing. We sympathize with them and congratulate the buyers.

The sale was capably managed by C. L. Hill, Wm. Baird, and Glenn Vergeront. The auctioneers were J. E. Mack and O. G. Clark, ably assisted in the ring by R. L. Benjamin, C. F. Pohlman, and Levi Jones. Following is a list of the records of the animals and price at which they sold:

Record fat	Sale price	Record fat	Sale price
	Grade Holsteins		
lbs.		lbs.	
*473	$ 90	360	$160
288	105	254	120
*377	75	*362	90
304	125	*410	115
*350	65	341	115
365	110	257	105
450	145	357	95
416	130	*362	95
455	140	357	100
328	120	250	125
408	180	413	200
382	135	400	185
404	160	320	110
421	130	564	185
261	110	357	165
372	125	377	145
273	115	357	115
337	140	474	100
*367	100	350	105
367	105	407	115
365	115		
41 head average		368	123
	Grade Guernseys		
*339	$100	374	$160
404	115	437	135
*305	60	444	135
359	105	340	130
275	160	397	135
256	105	472	105
*301	175	534	170
387	125	345	195
366	125	512	150
402	140	413	165
*261	60	215	110
370	160	*451	75
353	80	273	135
361	175	481	140
384	55	*387	90
441	140	439	145
370	85	474	90
34 head averaged		380	$124
	Grade Jerseys		
441	$115	448	$125
395	125	*463	70
357	105	480	120
463	135	385	130
8 head averaged		429	$116

*Record of dam of two-year-old bred heifer.



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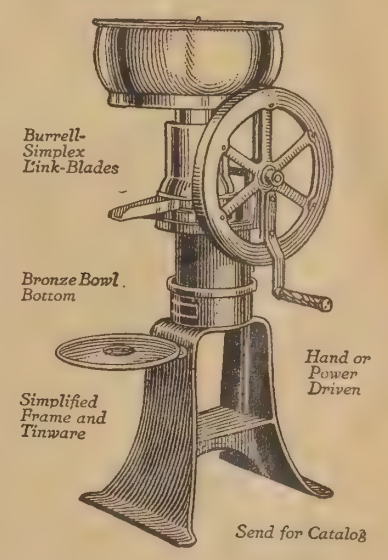
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Over the Ton Mark in Six Months

Over the ton mark with a litter of seven pigs in 180 days is the wonderful feeding achievement of Chris Brockman, Spencer County, Indiana farmer and hog man, an entrant in the Hoosier Ton Litter Contest, conducted jointly by the Agricultural Extension Department of Purdue University and the Indiana Live Stock Breeders' Association. He is the first man in the state to feed out a litter of only seven pigs to the ton mark in six months and so far as is known is first in the entire nation.

The total weight of the litter was 2,046 pounds or 292 pounds each. Brockman also won a gold medal last year when the same sow raised a litter of nine pigs to a weight of 2,240 lbs. at six months.

"I felt sure that I could make it again but the sow laid on two of her litter of nine this year and I had only the seven left to go ahead," said Mr. Brockman. "That second gold medal was only nibbling. It hadn't taken hold of the bait at all."

However, Mr. Brockman kept the hook well baited. After the pigs were two weeks old, the dam got all the corn, wheat, shorts, and skimmilk she would eat, and she converted it into milk for her pigs. From weaning time on, the pigs got all the cracked wheat and skimmilk they would eat, and had the run of a lespedeza and blue grass pasture.

In explaining why he fed wheat instead of corn, Mr. Brockman said corn was scarce in his locality last year and that wheat was "just as cheap as corn". Here is how he figured it: Corn was worth not less than $1 per bushel. There are 35.7 bushels of corn in a ton, making it worth $35.70 a ton, wheat averaged about $1.10 a bushel, with 33⅓ bushels in a ton, making it worth $36.67 a ton, plus the cost of cracking, thus totaling about $39. But wheat, when cracked, is worth a tenth more for hogs than corn, and his cost was no greater than if he had fed corn.—Purdue Experiment Station.

The funny column of a daily paper tells of a teacher who asked Willie to locate several cities and he answered, "I can't locate 'em but I know how to tune in on every blamed one of 'em."



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Stout Dispersal Averages $1,800.35

Fifty-four head of Guernsey cattle, formerly the property of the late Harry L. Stout and his father, F. D. Stout, were sold at the Chicago Guernsey Farm, Illinois, October 3rd, for $97,215, or at an average of $1,800.35. This is the highest sale average of any breed for several years. It was surpassed by the famous Langwater sale when 96 animals were sold for an average price of $2,738.85. Lone Pine Guernseys were famous both as producers and in the show ring. Guernsey enthusiasts regret that it was necessary to scatter these animals to various parts of the country because, under Mr. Stout's management, much could have been accomplished in the future. The average of $1,800 shows the respect that constructive breeders all over the country possessed in regard to the wisdom and judgment used in selecting and breeding the Lone Pine Guernsey herd.

One interesting feature of the sale was the bidding on individuals possessing Cherub blood. Cherub's Pearl Royal of Shorewood, who stood at the head of this herd, had fifteen daughters in the sale that sold for an average price of $1,293. They were all yearlings or calves.

A good crowd of buyers was on hand when Auctioneer Bain started the sale with Moss Raider's Polly in the ring. One thousand dollars was the first bid and in a few minutes this individual was the property of W. H. Williams, New York, for a price of $3,000. Mr. Williams was the heaviest purchaser of the day. He bought Lone Pine Mollie Cowan, a daughter of Langwater Hayes Rosie's King of the May and out of a daughter of Murne Cowan, for $15,100. Mr. Williams' representatives were closely pressed by Jimmy Dodge, manager of Emmadine Farm, and Capt. Dunning, manager of Caumsett Farm. Emmadine's last bid was $15,000. Lone Pine Mollie Cowan has a junior two-year-old record of 703 lbs. of butterfat and is now making a good record as a four-year-old that will place her very close to the top. Six head were sold to Mr. Williams for $37,700, an average price of $6,284.

Many people were interested in the two daughters of Gerar Pearl. These two cows come from a great family and several breeders had hopes of being able to add both of them to their own herds. Williams bought Gerar Pearl's daughter for $12,500 and Royal's Pearl of Pomeroy went to Marshall Field's Caumsett Farm, Long Island, for $12,750.

Caumsett Farm placed the last bid on seven animals with a total value of $25,050. Royal's Pearl of Pomeroy, second high cow of the sale, was one of their purchases. She has a junior three-year-old record of 623 lbs. of fat in the double letter class.

Two great families were prominent in the Stout herd. The Cherub family we have previously mentioned and the other was the Gerar Pearl family. Eight animals carrying a good percentage of Gerar Pearl blood brought $40,450.

The bull, Gayhead's Ultra May King, which was purchased just before Mr. Stout's death, was sold to August Ziesing, Illinois, for $2,200. This bull is well along in years, yet he will prove a valuable addition to the Thorn Hill herd.

The sale was well managed by Charles Hill and every detail was taken care of in a very impressive manner. The cattle were fitted and handled by Sly.

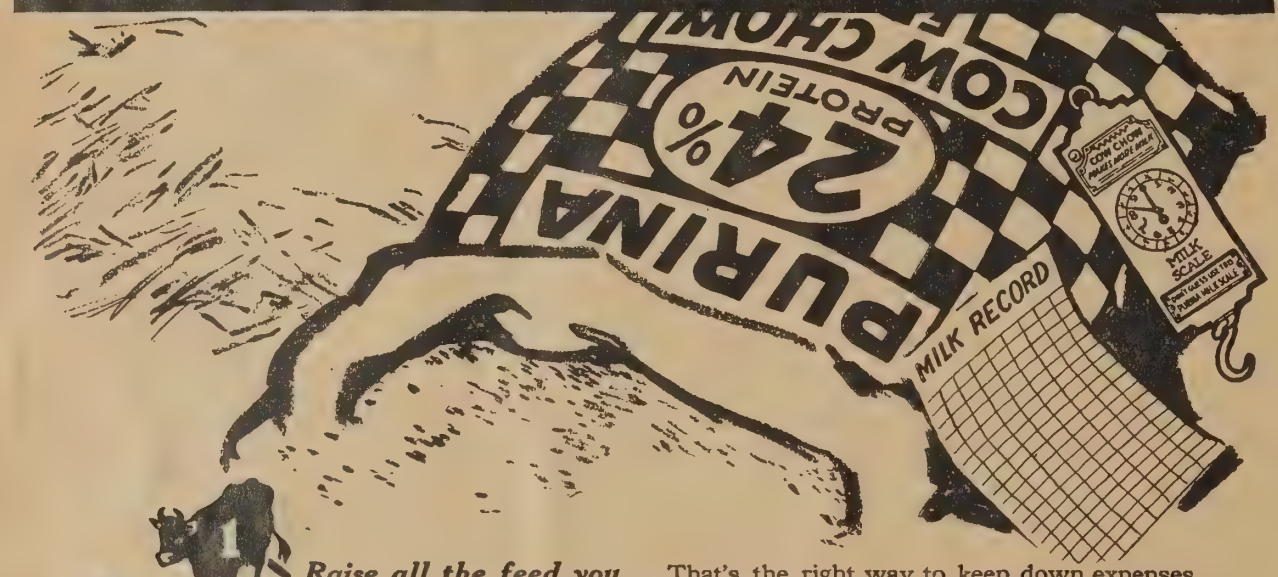
The following list includes the animals selling for more than $1,000 and their buyers:

W. H. Williams, New York	
Moss Raider's Polly	$ 3,000
Kenilworth's Milkmaid	2,600
Gerar Pearl's Daughter	12,500
Lone Pine Daughter's Diamond	3,600
Lone Pine Mollie Cowan	15,100
Caumsett Farm, Long Island	
Langwater Royal 4th's Belie	$ 1,100
Royal's Pearl of Pomeroy	12,750
Lone Pine Pearl Maiden	3,700
Lone Pine Daughter's Sapphire	4,500
Lone Pine Delightful	1,200
Lone Pine Debonair	1,300
Emmadine Farm, New York	
Lone Pine Miss Locust	$1,100
Ultra Lady of Uplands'	3,800
Mrs. R. R. McCormick, Illinois	
Lone Pine Delight	$1,200
Lone Pine Princess' Royal	1,400
D. A. Dunlap, Canada	
Lone Pine King's La Belle	$1,050
E. A. Moore, Connecticut	
Lone Pine Pretty Pearl	$1,400
F. W. Brandt, Wisconsin	
Lone Pine Dia	$1,250
Aug. Ziesing, Illinois	
Gay Head's Ultra May King	$2,200
D. D. Tenney, Minnesota	
Langwater Desire	$2,500
Geo. O'Neil, Wisconsin	
Lone Pine Victoria	$1,175

The outbreak of foot and mouth disease in Southeast Texas seems to be well under control. This outbreak involved herds consisting of 1,900 animals which have been slaughtered and buried. There is a corps of forty-five trained veterinarians and guards in charge of the territory which has been quarantined and it is being watched closely for any new outbreak. A week has passed since the slaughter of these three herds without a report of any more animals contracting this disease. It is to be hoped that all the infection has been buried. Since it requires from four days to three weeks for foot and mouth disease to develop after an animal has been exposed, it will be at least a month before we can feel that the disease has been destroyed.

Uncle Ab says the man who treats his horses well in the fall will treat them well the other three seasons of the year, and that's the only way to do anyhow.

A Plan that's Making More Milk at Less Cost



1 — *Raise all the feed you can.* That's the right way to keep down expenses.

2 — *Use just enough Purina to supply what your own feed lacks.* Purina makes a balanced ration with your home grown feed, so your cows give the greatest quantity of milk and keep in the best condition.

3 — *Follow feeding directions in the bag.* You don't have to experiment with Cow Chow. Profit by the experimenting of thousands of *other* dairymen. They have proved that if Cow Chow is fed right, it will make an average of a half gallon of extra milk per day.

4 — *Be fair to yourself and Purina by giving it 30 to 60 days to prove itself.* Cow Chow can't work wonders over night. 2 to 4 bags to each cow is the right quantity to start. This is enough for 30 to 60 days.

5 — *Don't guess. Keep track of your milk production and feed cost.* Weigh your milk regularly, and keep a record of how much it is costing you *now* to produce a gallon of milk. Then keep a record of the extra milk when you use Cow Chow—and note how *much less it costs to produce it!*

6 — *If Cow Chow doesn't make you more money, don't feed it.* But Cow Chow *will.* Order it from your dealer or mail us your coupon for the 100-page Purina Cow Book—free.

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THE GRADE COW EXHIBIT

THE fundamental basis of profitable dairying was emphasized in the grade cow exhibit at the National Dairy Exposition. Something over 200 cows were assembled from cow testing herds in Wisconsin whose average production was close to 400 pounds fat in a year. In addition there were special exhibits featuring the difference in production of cows, the value of the good sire as shown by the records of his daughters, and a freight car to illustrate the best methods of shipping cattle.

This noteworthy and well timed exhibit was sponsored by the Wisconsin Dairymen's Association in co-operation with the Wisconsin College of Agriculture. To the discriminating and inquiring visitor this co-operation was a lesson in itself of a unity of forces for better agriculture that has been of larger value in building up the prosperity of the state than its more talked of legislative and political history. The various agencies and men of Wisconsin have sunk political differences and personal advantage in their promotion of more profitable farm practices and because of this have achieved an outstanding success.

The responsibility for this particular show was placed on the shoulders of Mr. A. J. Cramer, one of the supervisors of cow testing work in Wisconsin, and he fulfilled the confidence placed in him. But here again we note the same co-operative spirit, for his success was based on the assistance given by many agencies and men, including the National Dairy Show, the Dairymen's Association, the College of Agriculture, the Live Stock Breeders' Association, cow testers, county agents, and many others. Last, but not least, was the loyalty of the members of cow testing associations who exhibited cows at no inconsiderable sacrifice of time and money. These farmers give full proof of their loyalty to the idea of the basis of profitable dairying, the good cow well fed. Membership buttons of the Wisconsin Dairymen's Ass'n. stressed the real purpose of this work—*Better Homes*—with the words: "Better cows, better fed, better profit, better homes, through testing."

The Educational Exhibit

As one entered the large exhibit barn placed at the disposal of the cows with cow testing association records, the first thing to be noted was the Steps of Progress, illustrating how cow testing associations with pure-bred bulls have improved the production of Wisconsin dairy herds. Here were shown cows representative of the average production of all cows in the United States of 160 pounds butterfat for a year, of all Wisconsin cows of 190 lbs. fat, of all cows in Wisconsin Cow Testing Associations of 273 lbs. fat, of the best producing association average of 341 lbs. fat, of the best producing herd average of 534 lbs., and finally "Kit", the highest producing grade cow with a record of 804 lbs. fat.

Next down the line were shown eighteen grade Holsteins from the Rockwell and Katterhenry herd that had been tested in the Beloit Association. Nine of these, including Kit, were daughters of Mercedes Lad Johanna Son. These half sisters have an average production of 14,355 lbs. milk containing 497 lbs. fat. The younger group of 9 females were daughters of Ormsby Pontiac Maple Crest. The six cows of this group that were in milk have averaged 307 lbs. fat at 2½ years of age. Here again was emphasized the value of the pure-bred bull and of testing, but quite as valuable was the opportunity given visitors to meet and talk with Mr. Katterhenry who has fed and cared for these cows and knows how to run a dairy farm as few men do.

The Grades in the Show Ring

Professor H. H. Kildee of Iowa had a difficult job in placing these good cows in the show ring, but he acquitted himself well and to the satisfaction of the exhibitors and the spectators. The awards were based on dairy quality as shown by the eye, and no consideration was given to records. As a natural result some high producing cows received no placing.

Liberal premiums were offered by the management of the National Dairy Exposition, ranging from $30 for first place to $10 for tenth place. In the Holstein classes the National Association was very liberal in offering $250 to be divided between the winners of the eleventh to the twenty-fifth place in the first two classes. The Guernsey Association awarded a silver cup to the champion Guernsey cow, and to the winners of first place in the first three classes was given a pure-bred Guernsey bull calf of good ancestry.

The Holstein Awards

The exhibit of Holsteins contained 137 cows, sixty of which, as shown in the aged cow class, had records averaging 408 lbs. fat. In listing the awards we give first the record of the cow, then the name of the owner, and lastly the name of the cow testing association. The first five placings in each class are given below:

Aged cows with over 350 lbs. fat: 1—413 lbs. fat, Sol Engle, Waukesha—Genesee; 2—354 lbs., Mrs. A. Tessene, Whitewater; 3—804 lbs., Rockwell & Katterhenry, Beloit; 4—365 lbs., Paul Moritz, West Bend; 5—458 lbs., E. Rudd, Menomonie.

Cows under four years with records of over 250 lbs. fat: 1—337 lbs., Rockwell & Katterhenry, Beloit; 2—387 lbs., Van Reuden Bros., Palmyra; 3—385 lbs., Van Reuden Bros.; 4—367 lbs., J. C. Held, Slinger; 5—292 lbs. Rockwell & Katterhenry.

Bred heifers from cows qualifying in first two classes: 1 and 4—Rockwell & Katterhenry, Beloit; 2—Fred Pamperin, West Bend; 3—Leon Bluemke, Rosendale; 5—Roy Williams, Waukesha.

Group of five cows from one association: 1—Beloit (ave. 550 lbs. fat); 2—Allenton—Kohlesville; 3—Edgar; 4—Richfield; 5—La Grange.

Group of four cows get of one sire: 1 and 4—Beloit; 2—Allenton & Kohlesville; 3—La Grange; 5—Waukesha—Genesee.

Group of five cows owned by one exhibitor: 1, 3, and 5—Rockwell & Katterhenry, Beloit; 2—Van Reuden Bros., West Bend; 4—S. L. Mann, Waukesha.

Champion: 413 lbs., Sol Engle, Waukesha.



KIT, A GRADE HOLSTEIN, HAS THE HIGHEST C. T. A. RECORD OF ANY GRADE COW IN WISCONSIN

She produced in one year 23,374 lbs. milk containing 804 lbs. fat. She was exhibited with the record cows by Rockwell & Katterhenry of the Beloit C. T. A.

The Guernsey Awards

There was a total of 43 Guernseys lined up in the show ring. Thirty of these in the aged cow class averaged 419 lbs. fat. In listing the awards we give first the record of the cow, then the name of the owner, and lastly the name of the cow testing association. The first five placings in each class are given below:

Aged cows with over 350 lbs. fat: 1—570 lbs., C. A. Riek & Sons, Dunn County; 2—405 lbs., Robt. Peichl, Whitewater; 3—441 lbs., W. F. Gerlach, Palmyra; 4—391 lbs., Robt. Peichl; 5—512 lbs., Scott Steward, Richland Center.

Cows under four years with records of 250 lbs. fat: 1—284 lbs., C. B. Thatcher, Dunn Co.; 2—287 lbs., Wm. Lonsdorf, Marathon; 3 345 lbs., F. Lieurence, Viola; 4—215 lbs., John Thuron, Wilton; 5—275 lbs., Mrs. M. Rockman, Barron.

Bred heifers from cows qualifying in first two classes: 1—Burchard & Peters, Fort Atkinson; 2—W. Matthys, Barron; 3—W. Brandon, Wilton; 4—H. Brandon, Wilton; 5—F. Abbs, Eldorado.

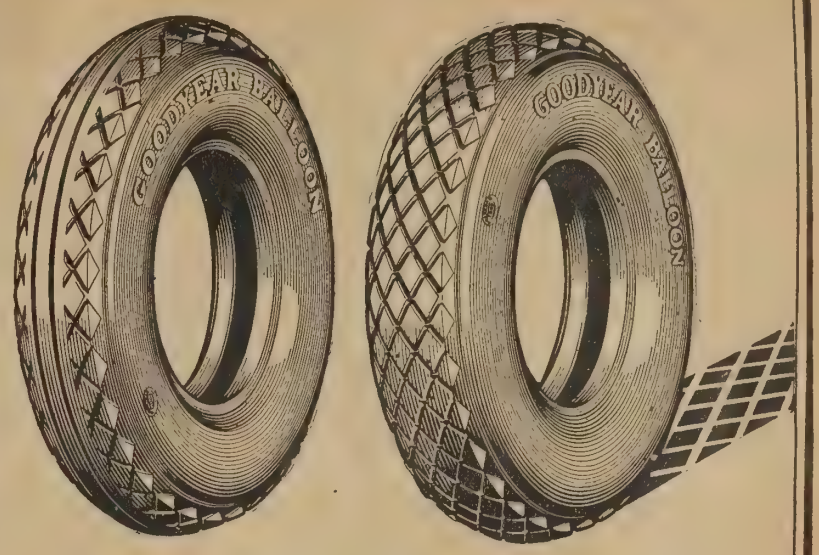
Group of five cows from one association: 1—383 lbs., Whitewater; 2—440 lbs., Richland Center; 3—383 lbs., La Grange.

Group of four cows sired by one bull: 1—Whitewater; 2—Richland Center; 3—Palmyra.

Group of five cows owned by one exhibitor: 1—Robt. Peichl, Whitewater; 2—Scott Steward, Richland Center; 3—W. F. Gerlach, Palmyra.

The Jersey Awards

There were only six Jerseys shown by two exhibitors. In the aged cow class R. H. Cooper of Richland Center Association took champion cow and places 1, 2, 3, 5, and 7 with cows having records, respectively, of 357, 448, 463, 480, and 385 lbs. fat each. Fourth and sixth places were taken by H. Hubert of Wilton with cows having records of 440 and 394 lbs. fat each. R. H. Cooper, the only entrant, took first place in the bred heifer class and in the three groups.



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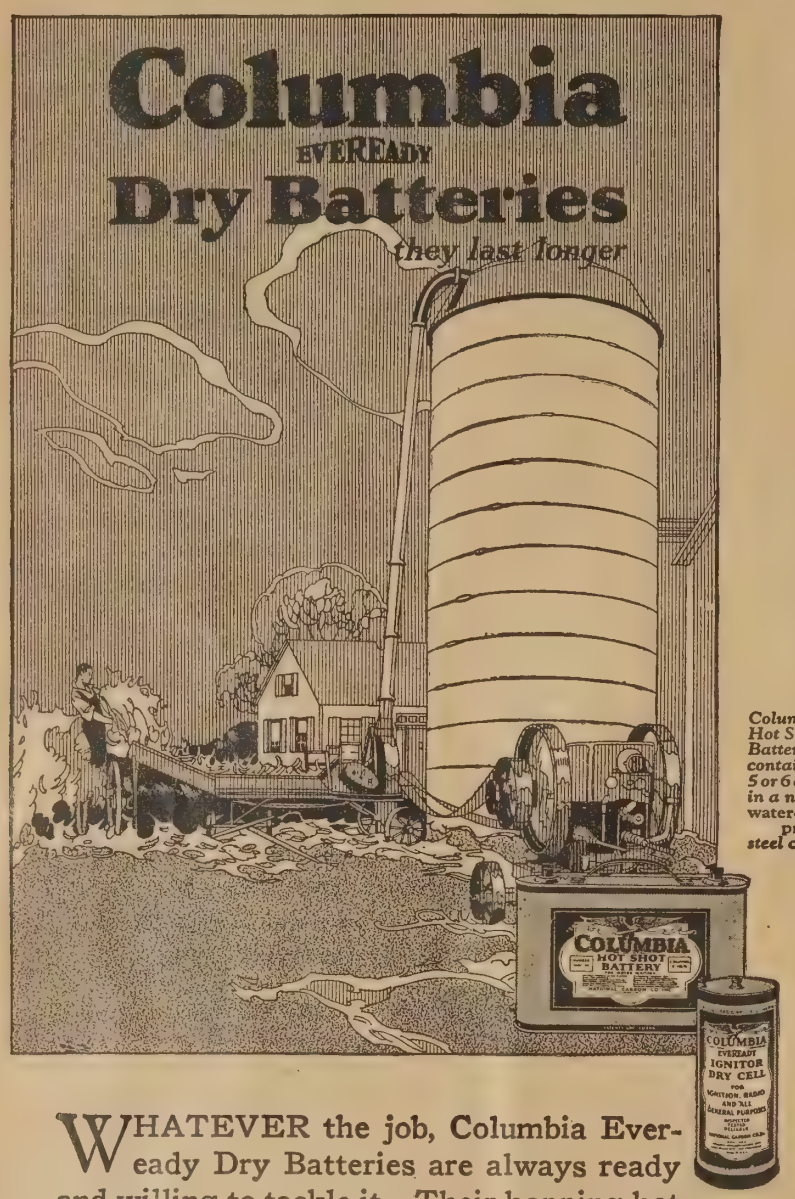
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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Ill.	Kane Co. 2	Sept.	R. H.	76.7	O. E. Pritchard
Ind.	Dubois Co.	"	J.	51.6	L. Weisehan
Minn.	Cannon Val.	"	H.	43.9	A. J. Schaffer
"	W. Dakota	"	G. H.	58.9	S. Steward
"	Pine Co. 2	Aug.	R. H.	94.0	Wardeman Bros.
Vt.	Conn. Valley	"	R. G.	64.0	C. D. McDonald
Va.	Pr. William	Sept.	G. H.	76.9	C. C. Lynn
S. D.	Sioux Falls	"	R. H.	76.9	S. D. State Pen.
"	Watertown	"	G. H.	50.5	Mrs. C. Stone
Mich.	Alto-Kent	"	G. J.	67.1	G. C. Richards
"	So. Eaton	Aug.	R. H.	54.7	E. P. Reynolds
"	Branch	"	R. J.	52.3	E. Andersen
"	St. Joseph	"	G. J.	63.2	N. C. & C. L. Harder
Mo.	Marion-Rolls	"	G. J.	61.9	S. P. Flowenee
"	Greene Co.	"	G. J.	51.8	J. A. Gibson
Wis.	Saukville	"	G. H.	63.8	N. Jacque
"	Independence	Sept.	G. H.	59.0	J. Hallama
"	Tenny-Dickeyville	"	G. D.	53.7	R. Fine
"	Eau Claire 1	"	G. G.	51.5	F. Karow
"	Oneida Co.	"	G. G.	98.7	W. Olson
"	Coon Valley	"	H.	56.7	L. Knudson
"	Verona	"	G. H.	62.8	M. Martinson
"	Sheldon	"	G. H.	42.8	F. Jerkich
"	Withee	"	G. H.	65.9	F. Adams
"	Richland Center	"	G. J.	58.3	R. Cooper
"	Alto-Metomen	"	R. J.	55.3	J. J. Williams
"	Cedar.-Grafton	"	G. H.	51.8	W. Buth
"	Luck-Milltown	"	G. H.	58.4	R. Jenson
Penn.	Lehigh Co.	"	G. G.	63.5	G. Gehman

Association Notes by Testers

Kane Co. No. 2, Ill.: The average production of 514 cows in milk last month was 677 lbs. milk, 23.7 lbs. fat, a little less than in August, but more than in September, 1923. Abundant fall feed helped to lower the feed cost per cwt. of milk 8c but because of lower average returns, profit above cost of feed per cow showed a decline of 18 cents. Another herd had its first tuberculin test. Only one out of 35 head reacted. Two members purchased drinking cups. Due to the lateness of the corn crop and other work, few silos have been filled, which is unusual for the end of September. Market milk sold for $2.60 in September and retailed for 10—13c per qt. —W. K. Bullock.

Dubois Co., Ind.: Two silos were built. Market milk sold for $5.00 per cwt. and retailed for 12c a quart in September. The creamery paid 40c per pound for fat. Fat for ice cream brought 65c a pound.—R. C. Carter.

West Dakota Co., Minn.: Silo filling is nearly finished, as is also the third crop of alfalfa. Market milk sold for $2.20 per cwt. last month.—L. L. Hammond.

Connecticut Valley, Vt.: In August one member built a silo. Another purchased a large farm. The high cow for that month, a three-year-old in eleventh month of lactation, has appeared in quality list every month. —S. M. Curtis.

Prince William Co., Va.: This association ended its second year of testing with an annual meeting the last of August. It reorganized with an increased membership. W. M. Johnson was elected president, J. B. Manuel, vice-president; and Jack Pullen, secretary-treasurer. The consignment sale held September 17th at Clover Hill Farm was the first of its kind held in Virginia and was a success. Twenty-three animals consigned averaged $119.68. The high cow consigned by Clover Hill Farm brought $210. W. J. Burlee, Virginia, paid this price for her. The following day F. M. Swartz's sale of his 19 grade Holsteins averaged $138. Market milk sold for $2.38 per cwt. and retailed for 14 cents per qt. in September.—T. T. Curtis.

Watertown, S. Dak.: Thirteen herds have been tested for tuberculosis and eight of them are on the accredited list. The association average for the month of September was 54.6 lbs. milk, 20.34 lbs. fat. Market milk sold for $2.00 per cwt. last month. The creamery paid 36c a lb. for fat. Milk retailed for 10c a quart, butter 40c a lb.—H. E. Erickson.

Branch, Mich.: Fifteen members feed grain to supplement pasture. Farmers are becoming disgusted at the low price for condensed milk and butterfat because of the millions of pounds butter in storage. An advance is looked forward to and will be appreciated. Market milk brought $2.50 per cwt. and retailed for 12 cents per qt. in August.—L. Q. Kitchen.

St. Joseph, Mich.: One cow produced over 60 lbs. fat, two over 50 lbs. fat, and 15 over 40 lbs. in August. One concrete silo is being built. Many members are sowing alfalfa this year. Market milk sold for $2.82 per cwt. in August.—R. S. Tompkins.

Green Co., Mo.: Of the 371 cows tested, 18 produced more than 40 lbs. fat, three more than 50 lbs., and nine more than 1,000 lbs. milk. Two members began selling milk at wholesale. Market milk sold for $2.50 per cwt.—V. L. Gregg.

Saukville, Wis.: Several members whitewashed and improved their barns, putting in new stanchions and cement mangers. The condensery paid $1.88 per cwt. for milk in August.—N. J. Schackmuth.

Independence, Wis.: The Independence and Whitehall Associations will hold the first cow testing association sale in Trempealeau County in October. In September the creamery paid 40—42c per lb. for fat.—P. Nelson.

Tennyson—Dickeyville, Wis.: Twenty-four cows produced over 40 lbs. fat in September. The highest herd average was made by Joe Kowalski, of 34.7 lbs. fat, 800 lbs. milk. The highest herd average for six months was also made by Mr. Kowalski. The creamery paid 38—39c a lb. for fat, the cheese factory 39c a lb. last month.—Joe Aufdermauer.

Coon Valley, Wis.: Silos are now being filled, but the corn is nothing extra this year. Most members feed alfalfa with pleasure. New equipment is being installed in a dairy barn. The creamery paid 40c per lb. for fat in September.—W. H. Klahn.

Verona, Wis.: Three herds were tested for tuberculosis and two herds passed a clean test. A few barns were whitewashed. A large number of members attended the Dairy Show. Market milk sold for $2.10 per cwt. The condensery paid $1.65 per cwt. for milk and the cheese factory $1.54. The creamery paid 47c a lb. for fat. Milk retailed at 9c a quart, butter 46c a lb., in September.—G. W. Weihing.

Lehigh Co., Pa.: One member purchased an additional silo. One herd was tested for tuberculosis for the first time and another herd retested. All members feed grain while cows are on pasture. Price for market milk was $2.80 per cwt. in September.—W. W. Sassaman.

Sheldon, Wis.: Three silos were built last month. Cows on poor pasture and receiving no grain have dropped 50% in milk. At a sale, cows with good association records sold for $30 more than those with poor records. Members reading Hoard's Dairyman and farm bulletins and practicing up-to-date methods of keeping cows are the ones who have the big cream checks.—G. E. Ronne.

Richland Center, Wis.: A co-operative creamery has been started. First payment on butterfat was 42c and for the first part of September 40½c. In August and September market milk sold for $4.70 per cwt. The con-

densery paid 37c per lb. for fat, the cheese factory 38c.—S. Lambie.

Cedarburg—Grafton, Wis.: Two herds were tested for tuberculosis and no reactors found. Twenty out of 25 herds in this association are now under state and federal supervision. The Ozaukee County Holstein breeders will hold a sale October 1st. Market milk sold for $2.32 per cwt. The cheese factory paid 42c per lb. for fat, the creamery 44c in September.—G. Wild.

Cow Testing in Missouri

Last year the cows in Missouri cow testing associations that averaged 300 lbs. of butterfat per cow produced butterfat at a cost of about 19 cents per pound. At the same time the average Missouri cow with a production of about 120 lbs. of butter, made this production at an average cost of about 41 cents per pound.

One of the best evidences of the increasing popularity of this work with dairymen is the rapid increase in cow testing association work in Missouri. In 1919 there were two associations with 48 members. Today there are fifteen associations with 370 members. Ten more associations are ready to organize as soon as testers can be located. In 1919 the association members received an average of $2.17 worth of product for every dollar feed cost. In 1923 this had increased to $2.77. This increase of sixty cents in profit on each dollar feed cost represents $35.12 per cow. Could this same increase have been realized on all of the 800,000 milk cows in Missouri it would have amounted to over $28,000,000 increase in profit to Missouri dairymen.—E. M. Harmon.

South Eaton, Michigan, Report

The South Eaton County, Michigan, Cow Testing Association has completed its second year. The summary report shows that 234 cows completed the association year, averaging 286.7 pounds fat and 7,654 pounds milk.

Mr. C. E. Burke carried off all honors. His seven pure-bred Holstein cows averaged 14,472 pounds milk and 513.6 pounds fat, the highest in the entire association for both milk and fat. A four-year-old pure-bred Holstein in Mr. Burke's herd produced 623 pounds fat and a stable mate to this cow produced 17,463 pounds milk and 549 pounds fat. These cows, respectively, are high in butterfat and milk production for this association.

A number of herds made improvements over the preceding year's work. In one instance a ration of 200 pounds ground oats, 100 pounds corn and cob meal, 200 pounds culled beans, 100 pounds bran, and 100 pounds cottonseed meal helped bring greater returns and make a dairy herd a good investment. This ration was fed at the suggestion of the tester. Other herds were fed cooked or ground culled beans and the cost of production was thereby cut. The experience of the South Eaton members indicates that from two to three pounds of ground beans daily per cow is desirable. Cooked culled beans, from 18 to 24 pounds, brought good results. In several cases this quantity of cooked culled beans was fed with silage. Additionally, corn and oats should be fed in order to maintain the cows in good flesh.

H. Kardel, Tester.

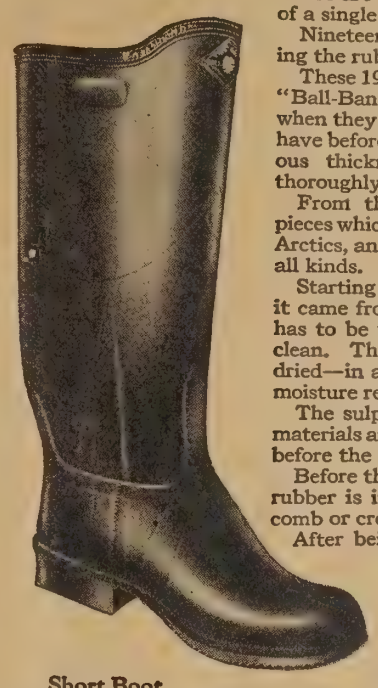


THE HOLSTEIN HERD OF C. E. BURKE AVERAGED 14,472 LBS. MILK, 513.6 LBS. FAT IN SOUTH EATON COUNTY, MICHIGAN, C. T. A. AND IS HIGHEST IN MILK AND FAT IN THIS ASSOCIATION

Illinois Association's Report

The Crawford County Cow Testing Association has just completed its first year with 588 cows tested; 279 cows finished the year with an average production of 4,615 lbs. milk, 247.9 lbs. fat, costing $1.04 to produce 100 lbs. milk, 21.2 cents to produce a pound of fat. A pure-bred Jersey cow, Fern Belle Star, was highest cow for the year, in amount of fat, her production being 9,367 lbs. milk and 548.3 lbs. fat. She is owned by E. E. Pifer. The high herd, consisting of 12 grade Guernseys and Jerseys, produced 6,709 lbs. milk containing 346.1 lbs. fat. Cost to produce 100 lbs. milk was $1.04; fat, 19.4 cents. This herd is owned by R. C. Lindley. The low herd of the association averaged 2,889 lbs. milk and 144.7 lbs. fat. It cost this herd $1.96 to produce 100 lbs. milk and 39 cents for fat. Two cows produced over 10,000 lbs. milk and 8 cows over 400 lbs. fat. All members but one use pure-bred sires. Two members use milking machines. Eight herds are federally accredited, 17 herds have had one or more tests. No reactors were found.—Fred C. Schroeder, Tester.

Over Fifty Reasons for MORE DAYS WEAR In "Ball-Band" Rubber Footwear



Short Boot
Extra strength where strength is needed to withstand the strains of work and wear.

There are 61 operations in the making of a single "Ball-Band" boot.

Nineteen of these are simply preparing the rubber and cloth.

These 19 operations take place for all "Ball-Band" Rubber Footwear and when they are completed the workmen have before them rubber sheets of various thicknesses and rolls of cloth thoroughly impregnated with rubber.

From these they cut the pattern pieces which will be built up into Boots, Arctics, and other Rubber Footwear of all kinds.

Starting with the raw rubber just as it came from the East Indies—first it has to be washed until it is perfectly clean. Then it is dried—thoroughly dried—in a kiln so that not a trace of moisture remains.

The sulphur and all the other raw materials and even the cloth—are dried before the work on the rubber begins.

Before the grinding process, the raw rubber is in sheets and has a honeycomb or crepe appearance.

After being washed and dried it is run through rollers again and again until it is a solid mass of gum, all the air spaces and crinkly surfaces being kneaded out of it.

It is then cut into loaves carefully weighed.

The sulphur and other compounding materials are also weighed into portions just right for each loaf or lump of raw rubber.

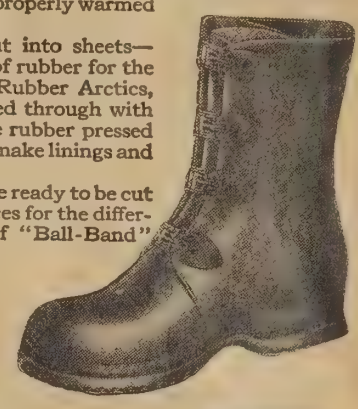
Then the rubber is kneaded again between rollers while the compound is added and thoroughly mixed.

After this it is run through hot rollers until the whole mass is properly warmed and softened.

It is then rolled out into sheets—some of it into sheets of rubber for the outside of Boots, All-Rubber Arctics, etc. Some of it is rolled through with sheets of cloth and the rubber pressed right into the fabric to make linings and reinforcements.

Now the materials are ready to be cut up into the various pieces for the different styles and sizes of "Ball-Band" Rubber Footwear.

4-Buckle All-Rubber Excluder Arctic



After This the Real Work of Bootmaking Begins

In a single "Ball-Band" "Vac" Boot there are 36 parts and 42 operations following the 19 already described. In a 4-buckle Cloth Arctic there are 50 parts and 30 additional operations. In a 4-buckle Rubber Arctic there are 60 parts and 33 additional operations.



Over Fifty Reasons for More Days Wear

Just a little better in every one of 50 operations means a whole lot better in the completed boot or rubber.

Over Ten Million people buy and wear "Ball-Band" Rubber and Woolen Footwear because they know what results have told them. They know the wear; they know the comfort and they know the economy.

And the reasons—over 50 of them—are all because:

We make nothing but footwear and we know how

Look for the RED BALL

Look for the Red Ball. It is on every pair of "Ball-Band" Rubber and Woolen Footwear. If your dealer does not handle "Ball-Band" write for dealer's name and the free booklet, "More Days Wear." It shows many kinds of Boots, Arctics, Light Rubbers, Work Shoes, Sport Shoes, Wool Boots and Socks—something for every member of the family.

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"BALL (TRADE Red Ball MARK) BAND" Rubber & Woolen FOOTWEAR

Mishko Sole Letho Shoe

The Letho Shoe has a "Ball-Band" sole made of special compound. This Mishko Sole is not only waterproof but wearers find it is stronger than leather and tougher than rubber. The upper is of full-grain leather, soft, pliable and durable.

This shoe is highly recommended by wearers as the most economical work shoe made. It is giving unusual satisfaction to men and boys who are "hard on shoes."

And, best of all, it is comfortable. Workers who are on their feet all day say they never think of their shoes when they are wearing this "Ball-Band" work shoe.

Imported Melotte

with the *self-balancing* bowl. Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. Runs so easily, bowl spins *25 minutes* after you stop cranking unless you apply brake.

Duty Free

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Catalog tells all—WRITE

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Catalog FREE

Send today for free separator book containing full description. Don't buy any separator until you have found out all about the Melotte and details of our 15 year guarantee.

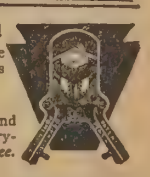


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DAIRY MARKET NEWS

Butter Prices for September

The following table is compiled from daily quotations by the U. S. Department of Agriculture and covers the average wholesale prices during September on 92-score butter (extras) at four of the principal markets, together with the receipts and storage holdings at these markets:

	Ave. price		Receipts	
	Sept. 1924	Sept. 1923	Sept. 1924	Sept. 1923
	Cts.	Cts.	Tubs	Tubs
Chicago	36.7	45.7	258,039	228,156
New York	37.9	46.0	300,427	272,128
Boston	38.3	44.6	103,818	97,528
Philadelphia	38.8	47.0	76,557	73,769
Total receipts for Sept.			738,841	671,581
Total receipts since Jan. 1			7,492,453	6,856,542
Storage holdings			1,354,050	787,773

Ninety-score butter averaged 34.9 cents for September in Chicago, with centralized butter at this market selling for 35.3 cents. Jobbers' prices on extras sold to retailers averaged 39.2 cents in Chicago and 41.4 cents in New York.

Cheese Prices for September

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese (style Twins) for the two large markets in September:

	September Ave. price	
	1924	1923
	Cts.	Cts.
Wisconsin Boards	19.3	24.7
Chicago	19.8	24.1

Longhorns averaged 20.3 cents in September on the Wisconsin Boards as compared with 19.3 cents in August and 26.2 cents in September a year ago. The receipts of cheese at Chicago, New York, Boston, and Philadelphia totaled 158,561,694 lbs. for the first nine months of the year as compared with 160,858,910 lbs. for the same period last year. Storage holdings at these markets on Oct. 1 were 23,602,104 lbs. as compared with 21,507,113 lbs. a year ago.

Milwaukee September Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of September:

For that portion sold as fluid milk, $2.85 per cwt; and for the portion manufactured, $1.39 per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Seventy per cent of the total receipts were sold as fluid.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets steady to firm during week ending Oct. 4th. Somewhat better feeling on markets due to export outlook. Further small shipments have been made. Production is decreasing somewhat but still heavy compared with last year. Storage withdrawal fairly heavy.

The average wholesale prices on 92-score butter for the week ending Oct. 4, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending		
	Oct. 4 1924	Sept. 27 1924	Oct. 4 1923
	Cts.	Cts.	Cts.
New York	38.5	37.4	46.8
Chicago	36.5	35.5	46.0
Philadelphia	39.3	38.2	47.8
Boston	38.2	37.5	47.2
San Francisco	39.0	37.2	47.9

The receipts of butter at these markets were 13,289,001 lbs. for the week as compared with 12,784,086 lbs. for last week and 10,912,155 lbs. a year ago.

Wisconsin August Butter

(Wisconsin Department of Markets)

The following is an average report of the operations of 138 co-operative creameries in Wisconsin for the month of August, 1924:

No. of creameries	Price paid for fat	Av. price rec'd. for butter	Ave. overrun	Ave. amt. fat rec'd.
	cents	cents	%	lbs.
1	46	42.6	20.0	17,818
7	44	36.3	23.2	54,950
19	43	37.1	23.4	42,170
23	42	36.6	23.6	30,494
31	41	36.6	23.1	30,884
26	40	36.5	22.5	30,270
12	39	36.6	23.1	21,952
5	38	35.9	21.7	20,285
9	37	35.9	21.7	14,368
4	36	35.3	24.6	7,381
1	35	35.	22.5	5,706
138				25,116

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets weakened during the week resulting in declines of about 1½c on Wisconsin Cheese Boards. Buying has been on a cautious basis and not much beyond immediate needs.

The average wholesale prices on American cheese, style Twins, for the week ending Oct. 4, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending		
	Oct. 4 1924	Sept. 27 1924	Oct. 4 1923
	Cts.	Cts.	Cts.
New York	21.8	22.0	26.7
Chicago	19.8	20.1	25.2
Boston	22.0	21.8	27.2
San Francisco	18.6	18.3	27.4
Wisconsin Boards	20.0	20.5	25.6

The receipts of cheese at these markets were 3,988,332 lbs. for the week as compared with 4,542,606 lbs. last week and 4,627,521 lbs. a year ago.

Philadelphia Milk Prices

The Interstate Milk Producers' Association announces that the October price for milk will be $2.94 a hundred f. o. b. Philadelphia and $2.19 a hundred at the 210-mile zone. This applies to the basic quantity. For September class 1 surplus, producers will receive $1.97 per hundred f. o. b. Philadelphia and $1.39 per hundred at the 210-mile zone. These prices are based on milk testing 3 per cent fat with a differential of 2 cents for each half point of test.

September Prices at Wisconsin Condenseries

(Wisconsin Department of Markets)

The following table gives the prices paid for milk delivered at Wisconsin condenseries during September. Some of the plants on this list are not strictly condenseries as they make a practice of bottling part or nearly all of their milk; prices paid by such plants usually run higher than those paid by straight condenseries. If prices for the current month are not available the price for the preceding month is given:

City	Prices to producers per 100 lbs.	Test basis payment	Price paid for 3.5% milk
Berlin	$1.75	4.	$1.53
Black Creek	1.75	4.	1.53
Bloomer	1.77½	4.	1.55½
Brooklyn	2.60	3.5	2.60
Burlington Nes. Co.	1.80	4.	1.60
Chilton	1.75	4.	1.53
Clinton	2.60	3.5	2.60
Columbus	1.80	3.5	1.80
Darien	1.90	4.	1.66
Delavan	1.80	4.	1.60
East Troy	1.65	3.5	1.65
Elkhorn	1.65	3.5	1.65
Fox Lake	1.62½	3.5	1.62½
Genoa City	2.60	3.5	2.60
Greenville	1.75	4.	1.53
Hartford	1.50	3.5	1.50
Jefferson Car. Co.	1.60	3.5	1.60
Johnson Creek	1.60	3.5	1.60
Juneau	1.85	4.	1.65
Lake Mills	1.45	3.5	1.45
Manawa	1.75	4.	1.53
Markesan	1.62½	3.5	1.62½
Marshall	1.85	3.5	1.85
Mayville	2.00	4.	1.75
Merton	1.57½	3.5	1.57½
Monroe	1.75	4.	1.53
Monticello	1.75	4.	1.56
Neillsville	1.68	4.	1.47
New Glarus	1.60	3.5	1.60
New London	1.75	4.	1.53
North Prairie	1.60	3.5	1.60
Oconomowoc	1.60	3.5	1.60
Orfordville	1.75	4.	1.53
Osseo	1.80	4.	1.57½
Richland Center	1.75	4.	1.53
Sawyer	1.60	3.5	1.60
Sharon	1.90	4.	1.66
Stoughton	1.90	4.	1.66
Sullivan	1.60	3.5	1.60
Walworth	1.80	3.5	1.80
Watertown	1.57½	3.5	1.57½
Waukesha	1.60	3.5	1.60
Waupun	1.62½	3.5	1.62½
West Bend	2.00	4.	1.75
Weyauwega	1.80	4.	1.57½
*Albany	1.60	3.5	1.60
*Belleville	1.60	3.5	1.60
*Denmark	1.70	3.6	1.66
*Fond du Lac	1.84	3.6	1.79
*Green Bay	1.50	3.5	1.50
*Hillsboro	1.60	3.6	1.56
Footville	1.60	3.5	1.60
*Lodi	1.86	4.	1.67
*Oostburg	1.70	3.6	1.66
*Racine	2.76	3.5	2.76
*Reedsburg	1.86	4.	1.67
*Sparta	2.00	4.	1.75
*Spencer	1.50	3.5	1.50
*Valders	1.90	4.	1.66

*Denotes prices paid for August.

NEW YORK, Oct. 8—Butter easier; receipts, 14,935 tubs; fresh supply, 67,769 tubs; creamery extras, 38c; specials, 38½@39c.

Eggs—Steady; receipts, 17,441 cases; fresh supply, 84,038 cases; white, fancy, 67@71c; fresh firsts, 39@53c; western whites, 35@66c.

MILWAUKEE, Oct. 13—Creamery, extra, tubs, 37½c; standards, 35c; extra firsts, 33½@34c; firsts, 31@32c; seconds, 29@30c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 40@41c; ordinary firsts (standard cases), 37@38c; miscellaneous, lots, shippers' cases returned, candled, 35@37c; seconds, dirties, 26@27c; checks, 25@26c.

Cheese—American full cream, Twins, 20@20½c; Young Americas, 20½@21c; Longhorns, 20½@21c; Daisies, single, 20@20½c; squares, 21½@22c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

FOND DU LAC, Wis., Oct. 10—Average cheese prices (majority of sales), f. o. b. shipping point: Single Daisies, 19½c; double Daisies, 19¼c; Longhorns, 20c; square prints, 20½c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Oct. 11: Single Daisies, 18c. On Farmers' Call Board, Oct. 10: Longhorns, 18½c; square prints, 19⅜c.

Carload Prices of Hay, Straw, and Feed, Oct. 4, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	27.50	27.50	.....	22.00	.....	26.50	26.00	23.75	19.50	22.50	20.00	24.00	....	17.00	
No. 1 Clover, mixed	20.50	.....	.....	19.50	.....	.....	.....	.....	17.50	.....	18.00	.....	.....	15.50	.....
No. 1 Clover	.....	.....	....	18.50	.....	.....	.....	.....	19.00	15.60	.....	20.50	.....	16.50	.....
No. 1 Alfalfa	.....	28.50	.....	.....		34.50	29.00	28.75	28.00	22.00	24.00	20.00	17.00	22.50	.....
Standard Alfalfa		25.50		.....		26.00	27.00	26.25	.....	18.00	21.00	.....	14.50	20.50	.....
No. 2 Alfalfa	.....	23.50	.....	.....	.....	23.00	25.00	22.75	25.00	16.00	17.00	.....	12.50	18.50	.....
Oat Straw	13.00	14.50	14.00	12.00	.....	.....	.....	.....	10.00	9.50	8.50	....	8.50	.....	.....
Feed—Bagged															
Wheat Bran	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring	31.50	.....	31.00	29.50	30.50	.....	.....	.....	29.00	26.50	24.00	.....	.....	.....	.....
Soft Winter	33.75	.....	33.50	30.50	33.00	34.00	.....	.....	29.50	.....	.....	27.00	.....	24.50	36.00
Hard Winter	33.50	.....	33.00	30.00	...	33.50	.....	27.00	29.00	.....	.....	26.50	24.00	24.50	.....
Wheat Middlings	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring (Standard)	33.00	....	33.00		33.00	38.00	.....	.....	31.50	28.50	26.00	.....	.....	.....	.....
Soft Winter	39.50	.....	39.00	36.00	.....	43.00	.....	.....	35.00	.....	.....	.....	.....	31.00	45.00
Hard Winter	.....	.....	.....	37.00	.....	39.00	.....	.....	35.00	.....	.....	32.50	30.50	31.00	.....
Wheat Millrun	35.50	.....	35.25	.....	.....	37.00	.....	.....	.....	.....	27.50	.....	.....	.....	.....
Rye Middlings	.....	.....	33.00	31.00	32.50		.....	.....	.....	.....	24.50		.....	26.50	36.00
High Protein Meals	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Linseed	50.50		50.75	50.00	.....	.....			48.50	47.50	46.00	49.00	48.50	49.75	46.00
Cottonseed (41%)	50.50	.....	50.50	47.25	.....	.....	.....	42.00	45.50	46.75	47.50	44.00	.....	.....	.....
Cottonseed (36%)	46.25	.....	46.50	43.25	46.25	36.50	.....	37.50	42.50	43.00	43.75	41.00	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	60.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	.....	.....	.....	28.00	28.50	27.50	.....	26.30	26.00	24.00	31.00
Gluten feed	47.95	.....	46.00	44.70	47.00	.....	.....	.....	43.70	40.80	43.90	.....	.....	.....	.....
Hominy feed (white)	45.25	.....	44.50	.....	46.00	.....	.....	.....	41.00	40.00	.....	39.50	38.00	.....	.....
Hominy feed (y'llow)	44.50	.....	44.00	.....	44.25	48.00	.....	.....	41.00	39.00	38.00	....	38.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	48.00	.....	.....	43.00	.....	44.50	.....	.....	.....	50.00
Dried Beet pulp	...	.....	.....	37.25	41.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.00

If you know of a thing that will darken the joy
Of a man or a woman, a girl or boy,
That will wipe out a smile or the least way annoy
A fellow or cause any gladness to cloy,
It's a pretty good plan to forget it.

Ayrshire Awards at the National

Bull, 4 yrs. old or over—1, Seitz & Sons on Cavalier's Ping Pong; 2, Alta Crest Farms on Bargenoch Masterstroke Imp.; 3, J. L. Stansell on Robin Hood; 4, Ness & Sons on Netherall Excelsior; 5, Betts & Sons on Elizabeth's Crusader. Bull, 3 yrs. old and under 4—1, Deschamps on Major de St. Sulpice; 2, Wallis on Cavalier's Bobby Vernon; 3, Ayrcroft Farm on Ayrcroft Cavalier Goldfinder. Bull, 2 yrs. old and under 3—1, Wallis on Edgerstoune's Premium Bond; 2, Seitz & Sons on Cavalier's Sherry Redman; 3, Barclay Farms on Barclay's Front Line; 4, Nisbet on Alta Crest Maintsay; 5, Experimental Farms on Ottawa Lord Kyle 2d. Bull 18 mos. and under 2 yrs. old—1, Barclay Farms on Strathglass Roamer; 2, Mass. Agrl. College on Alta Crest Ringleader; 3, Monstone Farm on Monstone Pilgrim; 4, Fraser on Burnside Knight Errant; 5, Hanrahan, Jr., on Ace of Hearts. Bull, 1 yr. and under 18 mos.—1, Alta Crest on Alta Crest Happy-Go-Lucky; 2, Pearson & Sons on Alta Crest Militant; 3, Seitz & Sons on Cavalier's Golden Pippin; 4, Ayrcroft Farms on Ayrcroft Cavalier Lord; 5, Barclay Farms on Barclay's Footlight. Bull calf, 4 mos and under 1 yr.—1, Ness & Sons on Burnside Supreme Victory; 2 and 5, Alta Crest on Alta Crest Weather Vane and Alta Crest Play Safe; 3 and 4, Seitz & Sons on Cavalier's Field General and S. C. Fashion Plate.

Cow, 5 yrs. old or over—1 and 4, Seitz & Sons on S. F. Helen R. and Lucindy of S. C. 4th; 2, Experimental Farms on Belle of Oban; 3, Monstone Farm on Hilltop August Lassie; 5, Legare & Sons on Primerose de la Petite Riviere. Cow, 4 yrs. old and under 5—1, Seitz & Sons on Cavalier's Luxury; 2, Woronoake Farms on Woronoake Pearl; 3, Experimental Farms on Ottawa Dignity Dot; 4, Barclay Farms on Nedloh Dairy Maid; 5, Alta Crest on Netherton Carmen Imp. Cow, 3 yrs. old and under 4—1, Ness & Sons on Burnside Blossom Andrietta; 2, Experimental Farms on Dunlop Stellite Imp.; 3 and 5, Seitz & Sons on Cavalier's Leesie Lindsay and Cavalier's Kathleen; 4, MacDonald College on Macdonald Holly 2nd. Heifer, 2 yrs. old and under 3 1, Alta Crest on Alta Crest Powder Puff; 2, Ohio State University on Maud Mac 7th; 3, Ness & Sons on Burnside Janevic; 4, Kemptville Agr'l School on Kemptville A. S. Frances; 5, Ness on Monstone September Morn. Heifer, 18 mos. old and under 2 yrs., bred by exhibitor; 1, Barclay Farms on Barclay's Brown Betty; 2, Seitz & Sons on Cavalier's Queen of Diamonds; 3, Hume & Co. on Humeshaugh Perfect Kate; 4, Alta Crest on Alta Crest Bright Lass; 5, Experimental Farms on Ottawa Barbara. Heifer not in milk, 1 yr. old and under 18 mos., bred by exhibitor—1, Barclay Farms on Barclay's White Flower; 2, Cummings Bros. on Supreme Elsie; 3, Seitz & Sons on Cavalier's Darling; 4, Alta Crest on Alta Crest Silk Stockings; 5, Ness & Sons on Burnside Heatherbloom. Heifer calf, 4 mos. old and under 1 yr., bred by exhibitor—1 and 4, Alta Crest on Alta Crest Hillbrow and Alta Crest Bubbles; 2, Ness & Sons on Burnside Miss America; 3, Seitz & Sons on Cavalier's Lady Perfection; 5, Barclay Farms on Barclay's White Betty (twin).

Cow, 4 yrs. old or over, having official yearly record—1 and 2, Seitz & Sons on S. F. Helen R. and Lucindy of S. C. 4th; 3, Legare & Sons on Primerose de la Petite Riviere; 4, Wallis on Lucindy of Spring Castle 2nd; 5, Ayrcroft Farm on Willowmoor Elsie Ruth. Cow, under 4 yrs. old, having official yearly record—1, Ness & Sons on Burnside Blossom Andrietta; 2, 3, and 4, Seitz & Sons on Cavalier's Leesie Lindsay, Cavalier's Kathleen, and Barclay's Lady Beauty. A. R. cow—1, Seitz & Sons; 2, Barclay Farms on Barclay's Jessie D; 3, Alta Crest Farms; 4, Ayrcroft Farm on Ayrcroft Nancy. Get of sire—1, Seitz & Sons on get of Cavalier's Lord Rosebery; 2, Barclay Farms on get of Nether Craig Footline; 3, Ness & Sons on get of Hobsland Victory; 4 and 5, Alta Crest on get of Morton Main's Lord Barrylyndon Imp. and Lessnessock Searchlight Imp. Produce of cow—1, Wallis on produce of Lucindy of Spring Castle; 2 and 3, Experimental Farms on produce of Culgaigrie Dot Imp. and Bargenoch Gay Cavalier's Leesie Lindsay 2nd of S. C.; 4, Seitz & sons on produce of Bargenoch Gay Cavalier's Queen of S. C.; 5, Barclay Farms on produce of Barclay's Jessie D. Exhibitor's herd—1 and 5, Seitz & Sons; 2, Alta Crest Farm; 3, Ness & Sons; 4, Barclay Farms. Breeder's young herd—1, Alta Crest Farms; 2, Ness & Sons; 3, Barclay Farms; 4 and 5, Seitz & Sons. Dairy herd—1, Seitz & Sons; 2, Experimental Farms; 3, Alta Crest Farms; 4, Ness & Sons; 5, Ayrcroft Farm. Eight animals entered by a state breeders' association—1, Ontario Ayrshire Breeders' Ass'n.; 2, Quebec Ayrshire Breeders' Association; 3, Wis. Ayrshire Breeders' Ass'n.; 4, Mass. Ayrshire Breeders' Ass'n.; 5, Ohio Ayrshire Breeders' Ass'n.

Senior champion bull—Cavalier's Ping Pong. Junior and grand champion bull—Strathglass Roamer.

Senior and grand champion cow—S. F. Helen R. Junior champion cow—Alta Crest Hillbrow.

Says Sam: Friction makes some wheels go around, but not the wheels of life.

Amarillo Fair

HOARD'S DAIRYMAN:—A new dairy show and a new fair, ranking among the best in the Southwest in quantity and quality of exhibits, in size of premiums, in buildings, and in extent of territory actively interested, made its appearance here the week of Sept. 22—28 with the second annual showing of the Amarillo Tri-State Exposition.

This fair, founded to advance the live stock and agricultural interests of a territory larger than most states, held its first show in 1923, in temporary quarters. It is centrally located in its territory, in the largest city of the region and with no major fair within 275 miles. During the last year, a 100-acre tract has been purchased for permanent quarters, and eight exhibit buildings erected. The extent of the territory from which support is drawn is indicated by the fact that 28 counties sent agricultural exhibits.

The dairy show was characterized as one of the best they had ever entered by Professor George P. Grout of Texas A. & M. College, J. W. Ridgway, and other veteran exhibitors. This was especially true of the Jerseys, whose advocates have been the pioneers in this virgin territory.

Sixteen exhibitors participated in the premium money, with Texas A. & M. College, Tarrant County Breeders' Association, and the Swisher County Bull Circle sending large herds. This latter organization has been a leader in bringing high grade stock to the region and, as a result, butterfat production of the county has jumped from $150,000 to $350,000 annually within a short time. A number of other communities are beginning to follow the Swisher County example.

Championships were awarded as follows:

Jerseys—Senior and grand champion bull, Texas A. & M. College on Raleigh's Sultan of Lehigh; junior champion bull, Tarrant County Breeders' Association on Mistletoe Cid's Raleigh; senior and grand champion cow, Texas A. & M. College on College Gamboge's Jacoba; junior champion cow, Tarrant County Breeders' Association on Anna's Lad Fern.

Holsteins—Senior and grand champion bull, Texas A. & M. College on Grahamholm Dutchland Colantha; junior champion bull, Texas A. & M. College on Nudine Tidy Prince; senior champion cow, Mrs. B. W. Trice, Oklahoma, on Bostwick's Pietertje Peggy; junior and grand champion cow, Texas A. & M. College on Tidy Princess Sunlight.

Guernseys—Senior and grand champion bull, Texas A. & M. College on Kitchener's Defiance Iowanola; senior and grand champion cow, Texas A. & M. College on Moonlight Cornet of Jaun.

Texas. H. E. BOZEMAN.

Ice Cream Short Course

Several experts from commercial companies will assist University of Minnesota dairy division men in putting on the ice cream makers' short course at University Farm, St. Paul, November 17 to 26.

Seconding Professor W. B. Combs, who will be in personal charge of the course, will be R. M. Washburn, director of laboratories for the International Dry Milk Company of Minneapolis. Mr. Washburn has been in dairy work for more than 30 years.

J. F. Raether, refrigerating engineer of the Westerlin & Campbell company, will teach the principles of mechanical refrigeration at the course. Two other experts, E. O. Hanson and J. O. Larsen, both of the Vander Bie Ice Cream Company, will lecture on sales and keeping records.

The course will consist of 32 lectures and 8 laboratory periods. Professor Harold Macy of the University's dairy division will handle the broad subject of bacteriology and give demonstrations in the normal fermentations of milk. H. C. Moore and L. M. Thurston of the faculty will assist in the laboratory periods and Professor Moore will give demonstrations in the judging of gelatines. While the course is primarily for those who have had some practice and experience in making ice cream, it will be so handled that those without experience may enter. Persons expecting to attend should write at once to the Division of Dairy Husbandry, University Farm, St. Paul, Minn., for application form.



Imp. Togo's Ginger. A non-producer at 12 yrs. of age. Murphy's Minerals were added to her ration and she produced 561 lbs. butter fat the next year.

"She was headed for the block as a non-producer"

Don't send that cow to the block! Murphy's Minerals saved thousands of cows last year from being sold as cheap canners.

Minerals are what their systems crave. They are mineral starved from high pressure concentrates and low mineral roughages. They have robbed their own systems to supply the minerals for their calves and milk until nature refuses to do more and a breakdown follows.

Murphy's Mineral Feed acts directly to increase *production*, prevent *goitre* and *depraved appetite*, and reduce *abortion* and *sterility*. It supplies to the animal the proper minerals in a concentrated, highly digestible, perfectly balanced form.

Written Binding Guarantee

Murphy's contains *no* indigestible ingredients—*no* agricultural limestone, *no* rock phosphate, *no* filler, *no* drugs, *no* medicine. It is palatable. With it even healthy herds increase their milk yield sufficient to pay several times its cost.

Murphy's is the only mineral feed sold on a *written, absolute, binding guarantee* of satisfaction or your money refunded. Write for book showing the true value of mineral feeds and how to judge them. It is Free. Simply address: MURPHY PRODUCTS CO., 110 8th St., Delavan, Wis.

MURPHY'S MINERALS

Wisconsin Dairy Show Holstein Sale

The Wisconsin Dairy Show Sale held Oct. 6 at Waukesha, Wis., did not bring out the buyers anticipated and some good cattle went for lower prices than expected. Eighty-four head sold for $19,725, an average of $234 each, with bulls selling to somewhat better advantage than females.

Top price, $710, was paid by Carl E. Rudolph of Illinois for Sir De Kol Ollie, a 27-lb. prize winning grandson of Iowana Sir Ollie, consigned by Heck Bros. He was a very showy two-year-old and unquestionably individuality was a big factor in his selling at the top of the sale.

The heaviest buyer at the sale was G. M. Householder, a member of the State Board of Control, buying for the state institutions. He took 32 head, with many of the best in the sale among them.

Mack, Krause, and Blake did the selling with Wood in the box. F. H. Everson managed the sale:

Following is a list of those animals selling for $250 or more and buyers:

Wisconsin State Board of Control	
King Pontiac Champion Parthenea	$625
Korndyke Pontiac De Kol Rue 5th	310
Johanna Segis Longfield 2nd	360
Hollyhock Bess Colantha Lady	385
Hollyhock Colantha Bess Ormsby	475
Hollyhock Pietertje Ollie Ormsby	500
Hollyhock Bess Colantha Fobes	325
Queen Johanna of Enterprise	550
Sedgland Homestead Beryl Wayne	460
Carl E. Rudolph, Illinois	
Sir De Kol Ollie	$710
D. W. Norris, Wisconsin	
Pabst Creator Maplecrest Ivy	$425
Johanna Copia Korndyke	375
O. & M. College, Oklahoma	
Sir Ormsby Segis Piebe	$410
George Hetzel, Wisconsin	
Ideala Korndyke Hengerveld	340
Joe Subitch, Wisconsin	
Nockdair Superba Segis Flower	$300
Carnation Matador Fobes De Kol	305
F. E. Klussendorf, Wisconsin	
Huldah Segis Korada	$425
Geo. Barty, Wisconsin	
Sir Johanna Pauline Ormsby	$475
H. F. Schimmel, Wisconsin	
Tomah Johanna Pietertje	$275
Fred Wittwer, Wisconsin	
Bertina Johanna McKinley Lass	$350
Axel Nissen, Wisconsin	
Male No. 42	$270
Wm. Harley Williams, Wisconsin	
Belle Neeltje Pontiac	$350
J. A. Hurtgen, Wisconsin	
M. M. Rue Bess Burke Ormsby	$275
Joe H. Hill Co., Indiana	
Carnation Matador Setske	$390
Carnation Matador Johanna	450
E. J. Jensen, Wisconsin	
Aggie Denver Wayne	$255
Massey Bros., Illinois	
Prospect Duke	$625

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All Shipments Prepaid

FREE Service and parts for 1 year. Money back guarantee. Get booklet, price list, monthly terms, etc. Just say, "Send Catalog."

This is the 400 lb. size Price $55

Million Dollar Bowl

A 30 years' Success

No. 4

Empire Cream Separator Sales Co. Inc.

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Louisville, Kentucky

Nature has perfected herself by an eternity of practice.—THOREAU.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

With the Juniors at the National

DEAR JUNIORS:—I sure had a good time at the National Dairy Show Club camp in Milwaukee. I guess everybody there had a great time. I don't see how they could help it with "Mac" McNeel in charge of the camp. He sure is a jolly good scout. He keeps camp in apple pie order and everybody smiling. I was at the National a whole week. Met a lot of fine fellows—and some dandy girls, too.



"THE BIG TRIUMVIRATE"

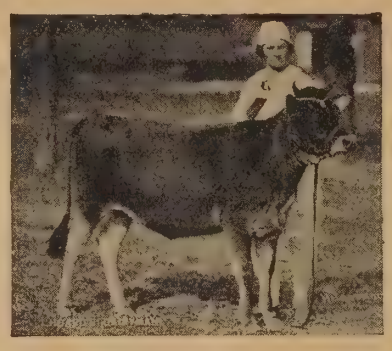
Top—Beth Salter, ass't. state club leader, Wisconsin. Bottom—W. McNeel, camp director; T. L. Bewick, superintendent boys' and girls' department at the National Dairy Show.

Well, let's see. Where'll I begin? Suppose I better begin at the beginning so here goes. When I entered the club building on the Fair Grounds—and by the way, it was the grandstand — Saturday morning, September 27, right away I bumped into a quartette of old friends, club leaders all. Who were they? It's no secret and as I want you to meet them, for they're regular fellows, I'll introduce them right away. The first is E. G. Jenkins, state club leader from Maryland, Daddy Jenks we all call him. Next is T. A. Erickson, the big club boy and chief of Minnesota's clubland, and there was G. L. Herrington, Tennessee club leader, a right good songmaster and yell leader and famous for his "Then let the lion roar!" There, just going into the telephone booth, was "Mac"—bet he was ordering something for dinner. And down the incline stairway came T. L. Bewick, Wisconsin's club mogul, and superintendent of the club department at the National Dairy Show. We shook hands all around and chatted for awhile.

I was going up to the second floor to see how things looked when my attention was drawn by curious noises on the other side of the partition scarce more than a rod away. Of course I had to investigate, and what do you suppose I found? The major part of the ground floor of the grandstand had been turned into a calf barn. So naturally I took a good look around going up behind one row of calves and down behind the next, and so on until I had viewed a most excellent exhibit of club calves of all the five dairy breeds. Besides, I had met some old friends looking after their animals, and met one or two new ones.

Before I knew it, the noon hour had arrived. So I hied myself up to the second floor of the 4-H club home. Now the last time I had been on the Wisconsin State Fair Grounds was about a month previous and this fine building had then been used to house the splendid club exhibits. The second floor had been filled with hundreds of club exhibits. I was therefore a little surprised to discover a kitchen and dining room and recreation hall occupying this space—it was a little different. And half the hall had been partitioned off with canvas, and I soon learned that this part had been turned into sleeping quarters for the boys. I peeked under the curtain and saw long rows of cots backed up against the glass exhibit cases.

This being the main hang-out for the club boys and girls during the week—don't they like to eat though—I shook hands with a number of "clubbers", Beth Salter, Wisconsin's assistant state club leader and in charge of the girls at the National Dairy Show, Miss Vangel Russell and Charlie Mac Aleavey, coaches of Wisconsin's dairy demonstration team, Miss Mary Brady who trained a championship demonstration team for Wisconsin last year, Ruby Maas and her team mates on the Wisconsin dairy demonstration team. Of course, I went over to the kitchen and said "hello" to the cooks because I wanted to be sure to stand in well with them. Anyhow, Ernie Hausen—you remember the world's champion poultry picker, don't you, is a particular friend of mine. And they don't make better cooks than Mrs. George Mason. I had scarcely made the rounds when I looked up to see Barbara Luchsinger coming towards me. Gee, but I was surprised. You know why? Barbara lives in Syracuse, New York. I met her last year at the National Dairy Show. Milwaukee sure is quite a ways from Syracuse and besides Barbara told me last year that she was going to the city to work. However, she informed me that she had been needed too badly at home to leave, but that she had had unusual success with her Jersey heifer, having won championship on her at the New York State Fair. Good for Barbara! Nor was her glory to stop here, as you shall see later. By the way, she is a Hoard's Dairyman Junior.



BARBARA LUCHSINGER, NEW YORK, WITH HER SWEEPSTAKES JERSEY



ROBERT SEITZ, CHAMPION SHOWMAN

The sharp blast of the leader's whistle interrupted us. Mac was blowing the first call for dinner. I hiked up to wash on the third floor. Up there I found more cots for tired club boys. Dinner was good—all the meals were above par. I discovered that scarcely half the camp had arrived yet. I sat at the same table with Verlyn Sears, leader of the Clark County calf club boys, but more familiarly known to you as one of the men who posed for the picture page on Fitting the Dairy Calf for the Show Ring. There were also several Badger State boys whom I had called on at their homes—John D. Wuethrich and Ernie Christie, for instance. The camp being held in Wisconsin it was only natural that I should meet these people first. Some general announcements were given by Mac after the meal, the most welcome of which was the one which said that for the present the members would not have to wash dishes. Just as we were getting up from the table Maryland came in—the judging team of three boys and their coach, Mr. Derrick.



JUDGING DAY AT THE JUNIOR NATIONAL

This was the largest class led into the ring—Holstein heifers. The "club home" is in the background.

I will not attempt to go into detail about each day's program, but I know you are all interested in a few



HOW'S THIS FOR A JOLLY GANG OF CLUBBERS?

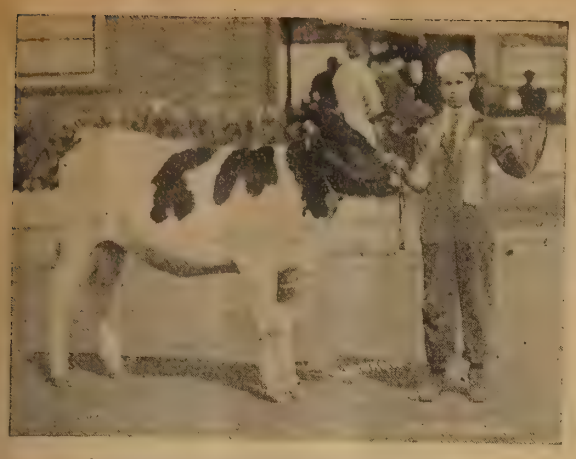
Two hundred boys, girls, and leaders on this picture, as many as could be gotten together at one time.



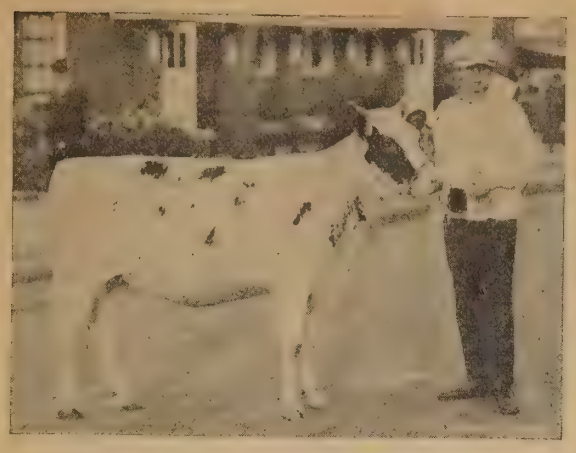
EVEN A CHAMPION WASHES DISHES

Harlan Leonard, highest individual in the judging contest, and Eunice Horne. No wonder Harlan washes.

—Milwaukee Journal Photo.



ALFRED BIELS WITH HIS FIRST PRIZE HOLSTEIN HEIFER



HAROLD NELSON AND EDGERSTOUN'S PIRY, SWEEPSTAKES AYRSHIRE HEIFER



MARPLE MOUNTAIN, IOWA, AND CHERUB'S BEUTONA OF IOWANOLA, SWEEPSTAKES GUERNSEY

of the high lights, so I will give you sort of an outline with here and there a bit of detail thrown in.

Saturday afternoon marked the first appearance of the 4-H Dairyland S'News. Although I had not seen him, I knew by the paper that Guy L. Noble, secretary of the National Committee on Boys' and Girls' Club Work, was on the job. He always fills his issues with cartoons and caricatures of which he himself is the author, and real live news written in an interesting fashion. The first issue contained an announcement of the opening of the camp, the big parade, and gave the entire program for the week, also carried a feature on Who's Who in the 4-H department. This camp newspaper was published daily for the dairy calf club members and was much appreciated by everyone.

Sunday was a quiet day in camp. In the morning the boys and girls attended church; in the afternoon they visited the Washington Park Zoo. The S'News reported that H. B. Derrick from Maryland got lost but was later found in a cage perfectly safe. In the evening Dr. W. T. Dorward gave a delightful talk. Dr. Dorward is Scotch and a Baptist minister. His first talk was so much enjoyed that he delivered a second one entitled "The Master Key" at the clubber's banquet Tuesday night. Saturday night and all day Sunday club members continued to pour into camp.

When I arrived at the grounds Monday morning things were rather quiet around camp, but I thought I knew the reason, so I went up to the coliseum. Sure enough, there they were in the ring. The contest was on. It was junior cattle judges' day. All morning they labored, first placing in the ring then giving oral reasons. They had to give their judgments on different classes in nearly all breeds. It was a hard job, but they had been drilled thoroughly and were ready. Twenty states were represented by junior teams in this contest, including the following: North Dakota, Illinois, West Virginia, Ohio, Georgia, Tennessee, New York, Wisconsin, Nebraska, Minnesota, Michigan, South Dakota, Iowa, Indiana, Pennsylvania, Missouri, Maryland, Vermont, Kansas, and Connecticut.

It was during the noon hour when the contest ended. The juvenile judges returned to headquarters after the regular campers had finished the noon meal. While they were waiting for the cooks to hustle their food on the table for them, L. I. Frisbie, Nebraska state club leader, who was in charge of the judging contest, stood up on a bench and announced the official placings of the various classes. The contestants anxiously compared their placings with those given by Mr. Frisbie. Final results, however, were not announced until the next evening at the annual banquet.



CLUB LEADERS FROM FAR AND NEAR AT THE NATIONAL

Bottom row, left to right: Mr. and Mrs. G. L. Herrington, L. I. Frisbie, M. J. Regan (Missouri), E. L. Austin, T. L. Bewick. Second row—C. Mac Aleavey, T. A. Erickson, W. McNeel, V. B. Sheldon and E. L. Garret (Mo.), J. A. Simms (Conn.), Beth Salter, Conie Foote (Kans.), and Mrs. G. B. Meybohn (Minn.). Third row—L. E. Hemrick (Ga.), Joe Flint (Mo.), H. A. Hass (Minn.), F. C. Essick (Mich.), D. P. Hughes (Wis.), L. H. Matthias, E. C. Sackrider, Art Hagen, and Paul Banker (all of Mich.). Fourth row—L. H. Marlatt and F. W. Fitch (Ga.), F. L. Miles (W. Va.), H. B. Derrick (Md.), C. H. Willson (N. Dak.), Otto Gilmore (Mich.), Russell Clarke (Wis.). Top row—Frank E. Miller and Mrs. Eli Young (S. Dak.), Vangel Russell, S. S. Mathison.

According to the Monday edition of the S'News, more than 250 boys and girls and leaders from twenty-one different states had registered at headquarters. It certainly was fine that practically the entire junior dairy show could be housed in such a splendid building as the grandstand. I heard it said that the best spirit prevailed at this camp of any previous, and I feel that it was due in a good measure to the fact that the accommodations kept them in one central unit. Before the camp had ended nearly 400 club members and leaders had registered. Naturally the girls were in the minority. I think there were about 50 girls there all told. Sleeping quarters were provided for them in a nearby building.

The first of the week, a number of trip winners arrived. For instance, there was a party of forty boys and girls, calf club champions in as many counties in Minnesota, directed by David S. Owen of the Minneapolis Journal. This enterprising big newspaper awarded the trip. Then there was a party of about 15 boys and girls from several states who were guests of the Blue Valley Creamery Co. And say, I almost forgot to tell you that one of the contestants in judging was Austin Lathrop of Connecticut. I met Austin last year at Syracuse; he was an alternate on the judging team there. He is and has been for several years a Hoard's Dairyman Junior of whom we have been particularly proud. His leader told me that Austin was making a name for himself in high school as debator and manager of the high school annual. Good work, Austin.

On Tuesday morning, promptly at 9:30, New York opened the demonstration team contest in which sixteen champion state teams competed for top honors. This contest was held in the entrance to the grandstand on the ground floor and attracted large crowds all the time. It was under the management of T. A. Erickson, Minnesota. Believe me, the demonstrations were good and many visitors left with more knowledge than when they first sat down to listen. E. L. Austin, Indiana state club leader, judged the demonstrations which continued all day Wednesday and part of Thursday. On Tuesday also the educational trips began. All those not otherwise engaged were taken down town to view the sights. After the noon meal, Mr. Frisbie announced that health contestants would be examined to determine the healthiest boy and girl in dairyland.

I forgot to mention that on Monday evening the clubbers were guests of the Milwaukee Kiwanians at the Rialto Theatre where "The Covered Wagon" was being shown. Needless to say, the kids were much tickled. Thanks, Kiwanians.

But of course the biggest event was scheduled for Tuesday evening—none else than the annual banquet. Contrary to the usual custom, supper was scheduled for 6:30. Nobody minded the extra wait because the cooks had an excellent chicken dinner prepared. I guess that the cooks probably fed as many at the banquet as at any time during the week. While waiting for dinner I bumped into a

(Continued on page 423)



WM. WALVOORD AND JACK DAHLIA OF MAPLE SHADE, FIRST PRIZE AYRSHIRE BULL



SANFORD ANDERSON WITH BUTTER QUEEN'S KING OF CLEAR VIEW FARM, BLUE RIBBON GUERNSEY BULL CALF



CLARENCE HALLE WON FIRST IN OPEN CLASS AND SWEEPSTAKES IN CLUB CLASS WITH HIS BULL CALF, GENERAL HOMESTEAD MERCEDES



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

For Sale—Registered Holstein herd. 40 head. Price $6,000. 25 from 35 lb. sire. 10 from 30 lb. sire. MAX WITTE, Route 5, Watertown, Wis. 11-*

Holstein Springers and heifers, car lots or less, priced reasonable. EDW. YOHN, Watertown, Wisconsin. 12-5

Holstein Herd Sires for sale or will trade for either grade or pure bred federally tested females. No. 1 Norrth Star Gift Champion, a 4 year old son of Johanna Bonheur Champion. Dam, the great 1,000 lb. cow, Little Gift of Spring Valley. No. 2. King Fayne Star Pontiac Segis, a 4 year old son of King Segis Pontiac Count. Dam, Johanna Fayne Star, 31 lb. daughter of Sir Johanna Fayne. Come and see them or write WALCOWIS FARMS, Lake Geneva, Wis. 12-*

For Sale—Complete herd of pure bred Holsteins. 19 milking, all with good A. R. O. records. 14 head young stock. A fine opportunity for some one. Apply PAUL REED, Oconomowoc, Wis. 12-3

Iowa County Holstei Breeders' Association. Consignment sale, Mineral Point, Wisconsin, October 22 and 23, 1924. 135 Holsteins, pure breds and grades. 15 straight topped, well grown young bulls, 6 months to 2 years old. and from good A. R. O. dams. 40 select, typy young cows, bred to freshen within next 3 months. Some of these have good A. R. O. and C. T. A. records. 20 fine 2 year old heifers. A few choice 6 to 8 months old heifers. The entire offering is sired by and bred to excellent sires, several of them with better than 30 lb. records. Some of the animals offered are blue ribbon winners at our fairs. 20 head choice grade yearlings bred for spring freshening. Two carloads of choice grade springers. These are selected; the good ones from several herds. These are good honest cattle. Not a 3 teater or a poor quarter in the lot. Write for catalog to J. ROY GORDON, Sales Mgr., Mineral Point, Wis. 13-2

For Sale—4 young registered Holstein cows fresh soon, also 2 calves. FRANK STONE, Kewanee, Ill.

135 Holsteins, grades and pure breds, will be sold Oct. 23 and 24 at Mineral Point, Wis. See our advertisement page 422 this week's issue. J. ROY GORDON, Mgr., Mineral Point, Wis.

For Sale—Carload Holstein heifers, JOS. BOSAK, Frederick, Wisconsin. 14-2

Holstein Bulls, all ages by 100 pound milk and 40 pound butter sires. Farmers Prices. ROY HARRIMAN, Appleton, Wisconsin. 14-spl

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

For Sale—Pure bred Holstein bull. Address State Demonstration Farm, Dawson, North Dakota.

Southern Illinois Holstein breeders seventh annual sale at New Douglas, Ill., Oct. 23rd, 75 head. Everything in Holsteins up to high record bulls. For further information address SALE MANAGER, New Douglas, Ill.

Stephenson County Holstein sale, 45 head pure breds, 35 grades, Freeport, Illinois, October 30th. Females fresh or springers. All animals T. B. tested. Sold subject to 60-day retest. DR. C. H. ROSENSTIEL, Mgr.

For Sale—I am offering my entire herd of 20 registered Holstein cows, heifers, and 2 bulls. Also 20 high grade cows and heifers at a bargain if taken at once. THOS. Mc GWIN, Miami, New Mexico.

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Five Registered Guernsey heifers for sale coming 2 years old. Sired by Upland's Challenge whose dam, Uplands Hulda, has 742 lbs. fat. They are bred to Cinderella's Fame of Mound City, a son of a 909-lb. cow. HOMER RUNDELL, Linwood Farm, Livingston, Wis. 10-Spl

Have 25 high grade Guernsey heifers, 10 yearlings and 15 two year olds. Will take $50.00 per head for entire herd. JOHN PETERSON, Waupaca, Wis. 14-*

Price List twenty Guernsey females. Real bargains. Bull calf fifteen May Rose crosses, seventy-five dollars. GLENGERNSY HERD, Long Prairie, Minn. 14-2

Guernseys—to make room must sell surplus females. Will sell anything in herd. Two choicely bred bulls 10 months old. Accredited herd. C. H. HULBURT, Waukesha, Wisconsin.

For Sale—Thoroughbred Registered Ayrshire Bull two and one half years old. Son of Carlene Nox, present Pennsylvania State Champion and sired by Penshurst Rising Star, sire of Penshurst Nancy Star, World Champion Junior two year old. Also for sale two thoroughbred Ayrshire cows and four thoroughbred heifers. Tuberculin tested herd. Correspondence invited and animals may be seen at LAVEROCK FARMS, Chestnut Hill, Philadelphia, Pennsylvania, care C. H Krumbhaar, Jr.

Ayrshire—Bred cows, heifers and young bulls at bargain prices for 60 days. L. B. STRUBLE, Fredericktown, Ohio.

MACHINERY

Want to Buy a hay bailing press in good condition. Give name, make, model, and year, with price in first letter. BOX 266, care Hoard's Dairyman. 8-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—New Primrose separator, $85.00. No. 4. LANVIL MOLER, Andrew, Iowa.

Wanted—Low down, short turn DeKalb milk wagon. State, first letter, condition and price f. o. b. Mineral Point, Wisconsin. GRAND VIEW DAIRY, Mineral Point, Wisconsin.

For Sale—10 gross milk bottles, plain and lettered. PRAIRIE VIEW DAIRY FARM, Peter Goodman, R. 3, Kenosha, Wisconsin.

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Alfalfa Hay—For sale. Choice pea green second and third cutting. Weights and grades guaranteed. Write for delivered prices. ALBERT MILLER & CO., 192, No. Clark St., Chicago, Illinois. 12-*

Baled Hay and straw for sale. Let us quote you. Prompt service. FRED SEEHAFER & SON, Marshfield, Wis. 13-5

TOBACCO

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. United Tobacco Growers, Paducah, Kentucky.

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50; smoking, 5 lbs., $1.25; ten, $2.00. Pay when received; pipe and recipe free. FARMERS UNION, Paducah, Ky. 13-4

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; smoking, five pounds, $1.25; ten, $2.00; pipe free. Pay when received. Tobacco guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 14-4

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Quality Hounds Cheap. Trial C. O. D. BECKS KENNELS, H. D., Patoka, Illinois. 14-2

Hundred hunting hounds cheap. Trial C. O. D. Catalogue. BECKENNELS, Herrick, Ill. 14-4

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 617-1st Ave. No., Minneapolis. 12-19

STOCK WANTED

Guernseys: Ten fresh or springers, with cow testing records, must be guaranteed free tuberculosis and abortion and priced right for cash. J. HOWARD CLIFFE, Ivyland, Pennsylvania. 12-*

Wanted—Carload Grade Holstein heifer calves. JNO. P. BIEHN, Gregory, S. D.

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

FARMS WANTED

Wanted—Fully equipped dairy farm by man with own help. Experienced, reliable. Central states preferred. Address BOX 315, care Hoard's Dairyman.

WANTED TO RENT

Wanted—Good dairy farm to rent, with stock and tools. Must have good barn. Want to deal with honest man. Have own help. Address BOX 321 Care Hoard's Dairyman.

FARMS FOR SALE

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

For Sale—Improved farm and cutover lands. Come and see crops growing now. Dairy industry has increased 500% in one year. Any size farm wanted. Write owner. H. B. OWEN, Pontotoc, Miss. 11-4

200 Acre stock and sheep farm, well improved and equipped, good buildings; 3 miles to town and Mille Lacs Lake; $75.00 per acre, your own terms. FIRST NATIONAL BANK, Milaca, Minn. 12-4

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Register and Secure a Farm. Hundreds have already started on our wonderful colonization plan. Come and see their fine new homes. We will also help you start in Wisconsin. You can get 40 or 80 acre dairy farms for only $100 deposit and balance in 10 years. Close to big towns. Many neighbors. Best, richest, gently rolling, Wisconsin clay loam. Only $2,000 for 40 with nice house, good barns, best milk cows. A greater opportunity than a U. S. Homestead. Particulars free. National Land Colonizing Co., Dept. G7, Madison, Wisconsin 13-2

240 Acre stock and grain farm. Good soil,, well improved, located in Central Minnesota. Only $60.00 per acre. $1,000 cash. Balance on time at three per cent. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, Saint Paul, Minnesota. 13-4

80 to 500 acres of rich, smooth, improved, well watered land in Piedmont section of Georgia, within two miles of depot, school, churches, and on rural mail route. Terms, ¼ cash, balance in five annual payments. STURGIS FARMS, Owner, Apalachee, Ga.

Cut This Out—We furnish men with farming experience, new dairy farms with stock, buildings, etc., on a payment of $100 to $300. Located in the Heart of Wisconsin. Close to railroads, schools, markets, creameries, poultry association, etc. Best clay loam soil, good water, close neighbors. Send for information, application blanks, etc., direct to Chippewa Valley Colonization Co., C-201, Plymouth Bldg., Minneapolis, Minnesota.

960 acres suitable for dairying, year around grazing adapted for clover and alfalfa. Good location near creamery and has railroad siding on place. Sacrificing at twenty dollars per acre. S. THEODORE MARSH, Saluda, S. C. 14-2

For Sale or rent to responsible dairy or stock man. Edgewood Farm, 640 acres finest Red River Valley land, 400 acres under cultivation, 80 acres alfalfa, balance bluegrass pasture and timber. Buildings exceptionally fine, modern all respects, electric light and power. Unusually large barns, silos, hog and poultry barns, seperate houses for help. On Red River 2 miles from Fargo, largest city in North Dakota. One mile from State Fair grounds. Completely equipped with stock and machinery except cattle. References required. FARGO LOAN AGENCY, Box 884, Fargo, North Dakota. 14-Spl

130 acres in beautiful location two miles from city limits of Fond du Lac. Natural home of alfalfa. Twenty acres of peat ground has grown corn for seven continuous years, every crop a big one. Barn and silo with modern equipment accomodates 60 head of cattle. Two houses, both modern with furnaces, bathrooms, toilets, running water, electric lights. Farm adapted to pure bred dairy cattle. A farm home of wonderful quality. Address R. D. 7 BOX 8, Fond du Lac, Wis.

162 acre model dairy farm equipped; 24½ acre fruit and chicken farm; 3 acre truck farm. All modern improvements in city of Columbus. Will sell at sacrifice considering quality. ELMER HURELLE, Columbus, Wisconsin. 14-2

FOR RENT

For Rent on Shares—Dairy and sheep farm near Elgin, Illinois. Contains 210 acres plow land, 130 acres fair pasture. All fenced for sheep. Owners have and will furnish 35 or more cows and a new Pine Tree Milker. They will arrange for a supply of sheep for joint ownership. Buildings are in good repair, two houses, two large barns, large hog or sheep house, corncrib cement silo, cement water supply tank with running water to the houses and buildings. One half mile to the Bowman Dairy milk bottling plant where the milk is now sold. One-half mile to the Grant Highway cemented from Chicago to Freeport, Illinois. 15 acres now in alfalfa and 30 in sweet clover. Owners desire to increase the alfalfa to 50 acres. Possession can be had March first, some arrangement for earlier possession might be made. Give references. Address BOX 320, Care Hoard's Dairyman. 14-*

For Sale and Rent—I am offering for sale my entire dairy herd of choice tuberculin tested cattle consisting of 40 Holstein and Guernsey cows, one registered Holstein bull, one registered Guernsey bull, also horses, farm machinery, dairy equipment and well established dairy route for entire output included, free to purchaser. Will rent my farm consisting of 160 acres and complete set of buildings including light, water and telephone. Located one quarter mile west of city limits. F. H. VANDENBOOM, Marquette, Michigan. 14-2

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Fireman, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?) Railway Association Desk W-5, Brooklyn, N. Y. 12-4

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted—For fine dairy in Illinois, first class, clean dry hand milkers. Good wages. Hollanders preferred. Give references etc., when answering. ERNEST LINDSAY, Oak Hill, Illinois.

Wanted—Married dairyman to assist herdsman on large estate 50 miles northwest of Chicago. Must be good milker and first class calf feeder; pure bred Guernsey herd. Permanent place for the right man. Very attractive surroundings. Handsome five room apartment with such conveniences as bath, steam heat and electricity; on cement highway, overlooking lake. Free milk, ice, etc. Wages $80 a month to start. Please state experience in full, references, and telephone number in first letter. Apply by mail only. N. I. NELSON, Lindenhurst Farm, Lake Villa, Ill.

Wanted—Middle aged single man for small herd and dairy. Must be good dry hand milker. Steady work. State wages wanted. SEEHEIN CORPORATION, Lake View, New York. 14-2

HELP WANTED

Wanted—Man to work in sanitary bottling room and wash up. We produce about 300 gallons per day. Prefer one out of certified dairy. State wages wanted. KEYWORTH'S DAIRY, Box 476, Houston, Texas.

Wanted—High class dairy farm working manager. One who can put the balance on the right side of the ledger. Everything to do with and up to date; 60 head Holstein cattle; certified milk, testing, also chickens and apple orchard; must board help. Enclose references, salary wanted, size of family, in first letter or no attention. P. O. BOX 793, Springfield, Massachusetts.

Married Herdsman Wanted to do A. R. work in Guernsey herd. Start soon. State wage, experience and reference first letter. HOMER RUNDELL, Livingston, Wis. 14-Spl.

Wanted—Strictly reliable, single man on dairy farm (registered stock) for winter or longer. Give age, weight, experience, wages expected. Address BOX 317, Care Hoard's Dairyman.

State Civil Service Examinations. Assembled and written. October 25,, Stenographer and typist. November 15, Midshipman from state-at-large. November 22, Legislative positions, clerk-filing and statistics, cheese factory inspector, creamery and dairy inspector, proof reader, and state sealer of weights and measures. Unassembled and written: Market milk specialist. Unwritten: Assistant engineer, family officer and matron, family officer and teacher, fireman, guard, matron-cottage and supervising, skilled trades, teacher, teacher guard, and telephone operator. For application blank and detailed information address STATE CIVIL SERVICE COMMISSION, Madison, Wis. 14-2

Wanted—Experienced dairyman, working manager, pure bred Guernseys. De Laval milker, modern improvements. State wages, references. MUELLER & CARTER, Cape Girardeau, Mo.

POSITION WANTED

Position Wanted for barn work. Good milker. GEORGE CRAMER, Box 204, Sidney, N. Y.

Position Wanted as test milker, milker or barn man. State particulars and wages, number of cows to milk. Thoroughly experienced. Address BOX 323, care Hoard's Dairyman.

Wanted—Farm, dairy or poultry work. Single, experienced. IRVING KREAMER, BEREA, Ohio.

Farm Manager of proven executive ability desires a responsible position. Twenty years successful experience gained through handling all phases of work connected with development and management of noted stock farms. Agricultural graduate, married with unblemished record. Address BOX 316, care Hoard's Dairyman.

Position Wanted as manager or herdsman on modern dairy. Married, age 40, life experience in dairying and farming. No position too large. State wages and full particulars. Address BOX 322 Care Hoard's Dairyman.

Middle aged married man, no children, desires position as herdsman or farm foreman. Best references, including present employer. Changing account Certified dairy farm I am now working on shares being consolidated with another farm under one manager. If you desire the services of a thoroughly competent, hard working man, address W. R. STRUBY, Bella Vista Farm, R. 1, Ypsilanti, Michigan.

Wanted—Position as farm manager or superintendent of large grain and stock farm.. Understand farming in all its branches; had years of experience with show cattle, horses and the dairy. Able to manage any sized farm and help. Married, middle aged, honest and reliable. High personal references. Address BOX 314, care Hoard's Dairyman. 14-2

Position Wanted to handle test cows on modern dairy by single man. Good feeder and caretaker State wages and condition of place. Address DAIRYMAN, Care Fl. Read, Virgil, Ill.

Position Wanted, by November 15, as manager or herdsman on modern dairy farm, by married man, 35 years old, no children. Have college and practical references. Year contract. Expect everything furnished. References exchanged. Address BOX 318, care Hoard's Dairyman.

Single Man 39 years old wishes job on modern dairy farm. Clean habits, references if necessary. For further particulars write BOX 319, care Hoard's Dairyman.

"Investments"

"Investments are a problem,"
Stated pa the other night,
"Sometimes you pick a winner
If you do, the deal's all right;
But again when feeling lucky
Like you couldn't lose a cent
Something breaks and then you wonder
Where your hard-earned savings went.

"Now I've sunk my share of money—
I'll confess it with a grin—
Sharps of golden words and phrases
Found me ripe to gather in;
Stocks of almost every species,
Bonds, both regular and fake,
Schemes that only paid the schemer
Make a part of my estate.

"But I've tired of being a sucker,
Stocks and bonds are not for me,
Right from here the schemer royal
Of investment I shall be;
And my savings won't lie idle
Here's my plan—so simple too—
Scrubby cows will be supplanted
By the blooded full and true.

"Dividends—of course, but I'll have them—
Better calves, more butterfat
Less feed wasted, soothing knowledge—
I'll know where each penny's at;
That—and something more called interest,
Not the kind that's all per cent,
Working, caring, doing, living,
Just as God Almighty meant.

"Yes, I've gleaned an education
Paid for it, I will allow,
And it's just this bit of learnin'
That I'm wording for you now;
Nothing wrong with sound investment—
Schemers thrive where'er you go—
Here's the secret in a nutshell,
Money for the thing you know."

Montana. R. D. GALT.

"I'm quite a near neighbor of yours," said the local bore.

"I'm living just across the river."

"Indeed," replied his neighbor; "I hope you'll drop in some day."

Wayside Musings

Power and Service

JOSEPH S. MORRIS, WISCONSIN

THE widespread use of the power of the gasoline engine and of the power of electricity generated by harnessing the swiftly flowing water of great streams, has given a tremendous impetus to man's life. We are trying to do as much of the world's drudgery as possible by the use of machinery driven by gasoline, electrical and steam power. We are trying to save the human machine, to extend its life, to increase its usefulness. All this control of power and direction of it to useful work should make us rejoice that so much progress has been made in our world. In many respects we are better off than men ever have been before. The fact that there are still problems to be solved, injustice to be corrected, inequalities to be adjusted, does not relieve us of the obligation to be happy over the progress actually made.

As matters stand now, a man living ten miles from a town can get into his automobile and going at a reasonable rate of speed be in town in half an hour. In other words, wherever the automobile has gone it has brought within man's reach access to all the privileges and opportunities of the city man. It puts him in touch with the best things that are to be had in the city. It is also true that it has put the city man in touch with the blessings of the country. The gasoline driven automobile has been and will continue to be an immense blessing to man. The use of this power of speed merely for speed's sake has not been so great a blessing. Too great speed often spells disaster to the speeder and to others. With the acquisition of ever-increasing power the need for control asserts itself. This last is true wherever there is power. Uncontrolled power leads to disaster.

It is also true that in the life of every man, woman, and child there is tremendous power. It is asserted repeatedly by those in a position to know, that we do not begin to use the power we have and that far too frequently we make a bad use of that power.

The highest expression of the power of a human life comes through normal, wise development physically, mentally, spiritually, and socially. We want to have powerful lives. We should also desire that power, when acquired, be under the influence of the highest ends —be a blessing to ourselves and others.

The three great temptations that came to Jesus were the temptations to use His great power unwisely: 1. The temptation to abuse His specially great power. He was physically weak from hunger but His spiritual power made Him Master of Himself. 2. Then there was the temptation to use His power to take a short cut to recognition as the Great One that He really was. 3. The third temptation was the temptation to consent to the idea that evil ruled the world; to recognize its power and compromise with it. He met and overcame the three great temptations.

The spiritual mastery of Jesus in the lives of great numbers of people is due to His complete mastery of Himself. He would follow the great laws of steady, sure, permanent growth. He would gain world-wide influence not through selfishness, nor through putting men in awe of Him, nor through compromise with wrong. His leadership was to come by the willing assent of men to the great, eternal truths that are redemptive. He chose the longer but the surer way. Mushrooms may grow over night but not oak trees. I think that all men of powerful personalities come to be what they are because they are first, well-born; second, well-trained; and third, taught to serve to make their lives really useful to the world.

In every home in the world where there are boys and girls growing up, there is the power that shall rule the world tomorrow, rule it or ruin it. Look carefully to that girlhood and boyhood and guide it into useful, blessed manhood and womanhood by directing its growing power into ways of real service. Happy lives are useful lives, and useful lives are powerful lives. There is no greater unhappiness than that which comes through feeling that we are useless.

What is a Bull Worth?

HOARD'S DAIRYMAN:—It has aptly been stated that the final measure of the value of a dairy sire is the comparison of the production records of his daughters and that of their dams. If a bull does not carry production blood to the extent that his daughters are greater producers than their dams, such bull is of little or no value to the herd. Without records there is no way of measuring the productive value of the herd sire.

An investment which will pay 50 per cent dividends annually should be considered a good place to salt money away. One which will lose 28 per cent annually should be avoided. There are dairy sires which increase the productive capacity of their daughters fifty to one hundred per cent. There are others which decrease production through their daughters fifteen to thirty per cent or more. What is the difference in money value of the two classes of sires?

Testing was started in the Oktibbeha County (Mississippi) Cow Testing Association April 1st, 1921. This association has operated continuously since the above date. During the first two years it was difficult to get the members to supply complete information on their cows; such as: age of cow, name and number of sire and dam, when bred, etc. In some herds this information was supplied rather fully last year. The records are worth many times more on the herds where such information was kept.

During the last five or six years one herd in the above association has been headed by three registered bulls of very good breeding and reasonably good individuality. All of these bulls were sold when quite young and before their daughters had been tested. We will designate these bulls as No. 1, No. 2, and No. 3.

In tabulating the 1923 association records on this herd we find records on eight daughters of bull No. 1. The dams of these eight daughters also have association records. This bull was bred to cows which averaged 3,571 lbs. milk and 178.1 lbs. of fat. The eight daughters averaged 5,388 lbs. of milk and 260.5 lbs. fat. The daughters' increase over their dams was 50.8 per cent in milk and 46.2 per cent in fat.

Bull No. 2 was sold before he produced many heifers. We found records on three of his daughters and their three dams. The dams averaged 4,089 lbs. of milk and 203.9 lbs. of fat. The daughters averaged 5,869 lbs. of milk and 286.0 lbs. fat, or an increase over that of their dams of 43.5 per cent in milk and 38.2 per cent in fat.

Bull No. 3 had eight daughters tested whose dams were also tested. He was bred to cows which averaged 4,657 lbs. milk and 228.8 lbs. fat per cow. The eight daughters averaged 3,346 lbs. milk and 179.7 lbs. fat, or a decrease in production by the daughters of 28.1 per cent in milk and 21.6 per cent in fat. All records made by immature cows we figured to mature records.

The owners became afraid they had turned loose a valuable animal when they sold No. 3, so they purchased him back and put him at the head of their herd where he has a large number of daughters coming on. Since these records have been tabulated this bull has been headed toward East St. Louis. It was through the cow testing association that this "robber" bull was detected and went to justice. This information alone is worth more than ten years' membership in the association will cost the owners of this herd.

What is a good bull worth and what are cow testing records worth?

Mississippi. L. A. HIGGINS.

Michigan Short Courses

On October 27 will begin the first of the eleven Winter Courses in Agriculture to be offered at the Michigan Agricultural College this year. This course, which is the only one to start this fall, offers work in animal feeding, live stock judging, farm crops, agricultural engineering, dairying, soils, horticulture, and the study of sheep and hogs. Special instruction in the construction of radio receiving sets is also given to those who are interested.

The other ten courses, among which are listed the Eight Weeks General Agricultural, Horticultural, Dairy, Poultry, Beekeeping, and Agricultural Engineering Courses, start on January 5 and later.

These courses are designed to meet the needs of the young men of the state who are not able or who do not desire to take the full four-year course in agriculture.

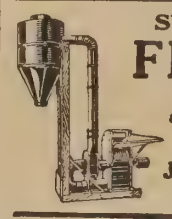
Complete details of all these courses are contained in the new 1924-25 catalog which will be sent to any address upon application to the Director of Short Courses, East Lansing, Michigan.

Southern Students' Judging Contest

In the dairy cattle judging contest for Southern Agricultural Colleges at the Tri-State Fair, Memphis, September 22, the team from the University of Arkansas won the trophy for highest team on the three dairy breeds while Oklahoma State College was second and North Carolina State College third. The Arkansas team was highest on Guernseys and Jerseys, while Oklahoma won the trophy for Holsteins.

In classes for individual students Lytle C. Baber of Arkansas was high man on the three dairy breeds and also on Guernseys; while Travis R. Thomas of Arkansas was high man on Jerseys and Robert Richardson of Oklahoma on Holsteins.

Professor J. J. Hooper, University of Kentucky, was superintendent of the contest and Robert Haeger of Algonquin, Illinois, was official judge. Professor W. W. Swett, U. S. Department of Agriculture, Washington, D. C., assisted with the contest.



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LUCY THOMPSON

"The Greatest Show on Earth"

I couldn't help thinking of this old slogan of Barnum's when I was over at Milwaukee at the National Dairy Exposition. It was a wonderful treat to me as I had never seen one before.

Of course I was most interested in what was offered for women and as I was thinking it over coming home on the train I decided that the woman's side of it could all be summed up in one word—Health.

I don't mean to say that the manufacturers of separators, churns, bathroom fixtures, and so on didn't have us all in mind but their exhibits, it seemed to me, were arranged mostly to catch the men's eyes. I guess it was a good idea, too.

There was one section that had a good many men looking at it though it was planned for the women, and how I wish you could all have seen it. The displays were wonderful but the thing that stood out above everything else was the cleanliness. "Spick and span" must have been the motto of everyone there for that is what they all looked and of course that is what anything connected with milk should be.

Everywhere you turned there was something about good health for yourself and your family. One woman even went so far as to say that she believed she would live to see the time when it would be counted a disgrace to be sick. Of course all this delighted me for health has always been a hobby of mine. I get ashamed of talking so much about it but I seem to keep right on doing it.

I think the most striking display for the women was one worked out, I was told, by Miss Gladys Stillman of the University of Wisconsin. If health is my hobby, milk is Miss Stillman's and she just lives to get people to see why they should use more of it.

Her display showed Ponce de Leon looking for the Fountain of Youth. Of course he was only a dressed-up figure but he was so life-like that you almost wanted to speak to him. There he stood looking at a clear pool of water in the grass and you felt sorry for him because it seemed that he knew he had not found the right thing.

On beyond was a counter of patent medicines on which people used to rely so much but whose worthlessness has been thoroughly exposed. Past that was a tableful of the most wonderful cosmetics—everything under the sun to make you look beautiful. But these were shown to be the wrong thing because we know now that health—and therefore true youth—can never be put on from the outside.

Then came the last scene—the true Fountain of Youth. It was a fine bronze-like statue showing some beautiful cows and above them sprayed and bubbled a fountain of the only perfect food—milk.

It was very convincing and of course on every side were little booklets showing not only what to do for health but, more important, why we do it.

Then there were the health lectures and the recipes! We could hardly wait to get home to try some of the new things to cook.

I must tell you a story that one of the demonstrators told. A woman brought her baby to a visiting nurse and told her that it was so cross and fussed so much that she could hardly stand it. The nurse told her how to feed it properly and the mother went away.

In two weeks she came back and reported that the baby was fine and never cross any more. But still she lingered and finally the nurse asked her what more she could do for her. The woman astonishingly said in her foreign accent, "What I give my husband?" Of course everyone laughed but I think everyone saw that there was a point there worth serious consideration.

Some other time I want to tell you about a demonstration meal I saw cooked and served by some young club girls. I was very proud of the poise they showed and the ability they had to answer questions. I was particularly interested in the fact that when questions were called for, the men were the only ones who asked them.

If the next national gathering is held at all near you, I think it would give you as fine a recreation as you could think of to go to it and meet the successful, optimistic people who are doing the same sort of work that you are. Let's plan to meet at the next one.

A New Point of View

I know a woman who, rather late in life, has just had her first baby. Both are strong and healthy; the baby is as little trouble as possible and the mother even has help with the work. But she makes the baby the excuse for being constantly busy about little things and assumes an injured tone if her husband even suggests that she take a walk with him.

She always says with a sacrificial air, "But, dear, the baby ——" and then he knows he is in for a losing argument about how much a woman has to give up for her children and how men just can't see things through a woman's eyes and that if he could just see what she has to do all day long he would never think that she could go for a walk, and so on indefinitely.

The trouble is that she is so close to things that she can't see them clearly and she won't allow herself to get far enough away to get a look at how foolishly she is acting. Of course she enjoys playing the martyr just like the woman I used to know who had a good-sized family and lots of work to do, but in order to make everyone think what a hard time she had she used to go out and help the neighbors with all sorts of heavy work so she could tell about it.

What these women need is to get clear off and take a good look at the situation as if they were seeing themselves through other eyes. We all need that. Most of us let our work surround us and control us without ever trying to see whether or not it is necessary.

Whenever you find yourself like that, just drop things and get off alone, preferably out of doors, for half an hour. Then don't waste any time thinking how things in the house are all going to ruin and how the family is wondering what on earth you are doing. Just forget them for a while and think of all the wonderful men and women who have passed through the world surmounting with quietness troubles much greater than yours and I think that it will fill you with courage and a feeling of fellowship with greater spirits.

I wish all of our houses could be built so that each member of the family could have a place to which he could retire and be absolutely alone. I wish, too, that the practice were common enough so that no one would think it queer if we wanted to be by ourselves at times. It is one of the greatest helps I know in seeing things in their true relations and in keeping the petty things from filling up the whole horizon.

No Need to Boil Them

Every wash day I remember with gratitude the woman who first told me that it is not necessary to boil the clothes. If she had been the sort who always puts out a grimy washing I would not have given it a second thought but because her clothes were so clean and fresh looking, I tried it and it works like a charm.

There are so many things we do just because our mothers did them. They did them for the same reason but life seems more complicated in these days and if we can save an hour or more of work a week, it is just another step ahead. We wouldn't mind the extra work nor the occasional scaldings if we were really turning out superior work but I have decided that boiling clothes is a superfluity.

If you soak your clothes over night you can then start the washing in boiling water but not soaking them and then starting them in only hot water amounts to the same thing and saves a lot more work.

A good washing solution is made by cutting up a cake of soap in two quarts of water and simmering to dissolve it. When it is cool add two tablespoons of borax and use about 2 cupfuls of this mixture to each machineful of clothes. Too heavy a lather does not make for the cleanest washing as the clothing slips together rather than rubs and there is not enough friction. Ten to twenty minutes in the machine is enough.

Of course we all aim at perfection but I would say that whatever dirt remains in the overalls at the end of twenty (or even ten) minutes should be allowed to stay there. I have more than once rubbed the skin off my knuckles trying to get them spick and span but, as the funny papers say, "them days are gone forever". There are a few things that it doesn't hurt us not to see and the dirt in the overalls is one of them.

Sunlight is the best bleach and disinfectant there is and after you have washed and rinsed the clothes well, it will do the rest so save yourself the time you spend on the boiling and the clothes will never be any the worse for it.

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2202—Cuts in One Piece. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 takes 4⅛ yards 36-inch material. Hot-iron transfer pattern No. 706, blue and yellow, costs 15c extra.

No. 1922—For Informal Afternoon Wear. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 takes 3 yards 40-inch material.

No. 2213—Becoming Fall Model. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 4 yards 40-inch material. Hot-iron transfer pattern No. 708, blue and yellow, costs 15c extra.

No. 1942—Practical Apron Style. Cut in sizes 36, 40, 44, and 48 inches bust measure. Size 36 takes 2⅝ yards 36-inch material.

No. 1893—Slip that can be made with built-up shoulder and V-neck or with straight upper edge and shoulder straps. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 takes 2⅞ yards 36-inch material.

No. 2201—Jaunty Style for Girls. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 takes 2⅜ yards 36-inch material.

No. 2204—Attractive Apron. Cut in sizes small, medium, and large. The medium size requires 1½ yards 36-inch material.

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Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

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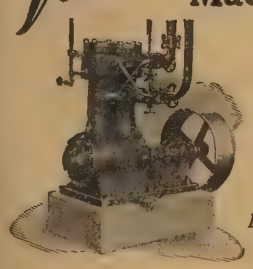
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Friendly Talks for Farm Folks

Pearls are found in oysters and in the milk of cocoanuts, while Amos Springer bought his wife a pretty pearl ring from the city the other day out of the proceeds of his milk check.

⚜

Grandma Bascom is heaving vast sighs of relief these days as the cold days approach, Providence having spared her little cottage from being struck by lightning once more.

⚜

Armies of grasshoppers which are called "Painted Ladies" are invading the southwestern states from Mexico and eating everything before them. However, unlike most pests, these hoards of grasshoppers are said to only consume weeds which the farmer is most thankful to be rid of. As Ben Russell says, he wishes to gracious the critters would come jumping out East and clean up the weeds on his patch of ground. It would be so much easier than to run the cultivator.

⚜

John Stradling states that he is personally far more interested in the November price of milk than in the outcome of the election. He goes so far as to assert that it is far more important that the farmer make sufficient milk than whether Davis or Coolidge polls the more votes. John says that good prices for wheat are seventeen times more noteworthy than a Democratic or Republican or Progressive victory. We second all these motions and then some.

⚜

Marietta Bonnet from the city was one of those terrible flappers one reads so much about but rarely meets up with in the country, at least. Marietta rolled her own and toted a pocket flask—although I have a grave suspicion that was filled with weak tea—and was always throwing in a near-swear word and staying out late nights and doing everything her immature mind could think up to shock and make talk in our community. Not long ago Marietta announced her engagement to a young man from the country who is as sterling and straightforward a character as you often see. Of course we were all surprised at the choice all around, and folks told Fred he had made a big mistake, while Marietta's relatives predicted much boredom and unhappiness for her when married to the poor country hick. Some of the country girls were pretty mad that Marietta had landed Fred, and when one of them tendered the bride-to-be a shower, they decided to get even with her. So when the big clothes basket containing the gifts was opened by Marietta at the party, what did she undo from countless wrappings but a great granite spittoon! Well, Marietta proved herself a real girl when the cruel joke descended upon her by bursting into tears of rage and mortification. The neighbors say that the other girls were real sorry they helped to do such a thing and tried to comfort poor Marietta to the best of their ability. But one of the young men of our town, a friend of Fred's, told Ike Bartoo's sister who told Mrs. Morton who told me, that Fred himself grinned in a knowing way when the tale of the spittoon shower reached him. At any rate, Fred and Marietta are now married and if you will believe it, that girl no more thinks of pretending to drink or smoke or swear than an innocent baby. But you can't make me believe that Fred was at the bottom of that spittoon business.

New York. HELEN S. K. WILLCOX.



Hallow-e'en—and tradition tells the maiden to peer into the mirror by candle light to see the reflection of the man she is to wed.



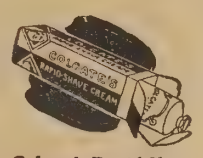
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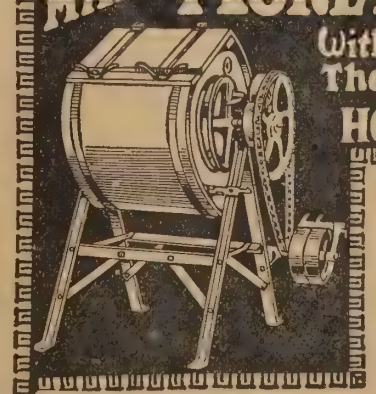
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68 W. Kinzie Street, Chicago

Jersey Awards at the National

Bull, 4 years old or over—1, Twin Oaks on Fern's Wexford Noble; 2, Jersey Crest Farms on Sayda Rose's Jap; 3, W. O. Douglas on Douglas Royal Majesty; 4, F. D. Underwood on You'll Do's Handsome Raleigh; 5, J. S Ellsworth on Lord Chancellor. Bull 3 years old and under 4—1, Pebble Hill on Adelina's Sultan; 2, Elm Hill Farm on Raleigh's Farmer's Joy; 3, W. M. Knight on Modesty's Oxford Majesty; A. T. Little on Hazelden Education. Bull 2 years old and under 3—1, Twin Oaks Farm on East Lynne Prince; 2, Ellsworth on Sybil's Sea Prince; 3, Hugo J. Trost on Silver Thread's Oxford Noble; 4, Little on Iona's Bright Fern; 5, Duncan & Son on Bright Heir of Don. Bull 18 months old and under 2 years—1, Twin Oaks on Counterstroke; 2, Ellsworth on Cowslip's Jolly Gamboge; 3, Bagg & Sons on Edgeley Silver King 2d; 4, Douglas on Salonica's Fancy; 5, Indiana Condensed Milk Co. and E. A. Richardson on Leda's Dairylike Sultan. Bull 1 year and under 18 months old—1 and 4, Elm Hill Farm on Xenia's Cowslip Oxford and La Sente's Golden Sultan; 2, Twin Oaks on Worthy Oxford Noble; 3, Little on Hazelden King William; 5, Pebble Hill on Bright Volunteer. Bull calf, 4 months old and under 1 year—1, Twin Oaks on Oxford's Wexford Noble; 2, Crabbe on Noble's Financial Modeller; 3, Ellsworth on Sybil's Gamboge Dreadnaught; 4, Underwood on Fewacres Bill Dod; 5, Hull & Son on Brampton Mistletoe Boy.

Cow 5 years old or over—1 and 3, Twin Oaks on Fern's Oxford Diana and Melodant; 2 and 5, Ellsworth on Imp. Juggler's Jersey Queen and Trinity Ann; 4, Pebble Hill on Fern's Oxford Anemone. Cow 4 years old and under 5—1, Elm Hill on Xenias Surprise; 2, Twin Oaks on La Sente's Onyx (Imp.); 3, Pebble Hill on Imp. Indispensable's Juanita; 4, Dolson on Brampton Oxford Miss; 5, Crabbe on Raleigh's Value. Cow 3 years old and under 4—1, Ellsworth on Ashley's Sybil's Hope; 2 and 3, Bull and Son on Brampton Observer's Roza and Brampton Xenia's Irby; 4, Pebble Hill on Gilberta's Victoria; 5, Elm Hill on Chieftain's Nina. Heifer 2 years old and under 3—1, Twin Oaks on Volunteer's White Socks; 2, Ellsworth on Rosy Side; 3, Pringle on Rower's Golden Lass; 4, Elm Hill on Spy Girl's Surprise; 5, So. Dak. State College on Raleigh's Togo Lady. Heifer, 18 months old and under 2 years, bred by exhibitor—1, Ellsworth on Sybil's Pomona; 2, Twin Oaks on Fern's Oxford Columbia; 3, Col. Harry Cockshutt on Grove Farm Floradora; 4, Crabbe on Super Noble Hope; 5, B. H. Hull and Son on Brampton's Radiator's Legacy. Heifer not in milk, 1 year old and under 18 months, bred by exhibitor—1, 3 and 4, Twin Oaks on Fern's Oxford Silver Thread, Ameranthe, and Fern's Oxford Briar Rose; 2, Knight on Majesty's Ixia's Orange; 5, Crabbe on Super Model's Hazel. Heifer calf, 4 months old and under 1 year, bred by exhibitor—1, 3, and 5, Twin Oaks on Fern's Oxford Melodant, Fern's Wexford Nesta and Fern's Counterpane; 2, Ellsworth on Sybil's Deaconness; 4, Bagg and Sons on Edgeley Silver Star 2d.

Cow 4 years old, having official yearly record—1, Inderkill Farms on Sociable Sybil; 2, Twin Oaks on La Sente's Crown Princess; 3 and 4, Ellsworth on Trinity Ann and Trinity Charm; 5, Cedar Crest Farms on Raleigh's Value. Register of Merit Cow—1, Ellsworth on Imp. Juggler's Jersey Queen; 2, Underwood on Fern's Molly Dolly. Get of sire—1, Twin Oaks on get of Imp. Fern's Oxford Noble; 2, Elm Hill on get of Xenia's Sultan; 3 and 5, Ellsworth on get of Sybil's Gamboge; 4, Meredith Jersey Farm on get of Financial Beauty's King. Produce of cow—1, Twin Oaks on produce of Golden Fern's Silver Thread; 2, F. D. Underwood on produce of Fern's Molly's Dolly; 3, Ellsworth on produce of Imp. Juggler's Jersey Queen; 4, Knight on produce of Eminent's Safety Belle 2nd; 5, Mrs. Philip Smith on produce of Daisy of Silver Lake. Exhibitor's herd—1, Twin Oaks; 2, Ellsworth; 3, Underwood; 4, Meredith Jersey Farm. Breeder's young herd—1 and 2, Twin Oaks; 3, Ellsworth; 4, Crabbe; 5, Knight. Dairy herd—1, Crabbe; 2, Twin Oaks; 3, Elm Hill; 4, Pebble Hill.

Senior and grand champion bull—Fern's Wexford Noble. Junior champion bull—Xenia's Cowslip Oxford.

Senior and grand champion cow—Fern's Oxford Diana. Junior champion cow—Sybil's Pomona.

HOLSTEINS

COMPLETE
DISPERSAL
RYANWOOD HERD
Of Pure Bred Holstein Cattle
Wednesday, Nov. 5
At my farm 3 miles south of
DE PERE - WISCONSIN

Herd consists of 35 HEAD, with the great show bull, Sir Calamo Wayne, at the head. A. R. O. cows with records up to 24 lbs. in 7 days and 800 lbs. in a year. Six daughters sired by Sir Calamo Wayne. All females of breeding age in calf to above bull. Five bulls whose dams have records up to 29 lbs. Herd T. B. tested since 1908, and we've never had a reactor on our farm.

R. E. HAEGER, AUCTIONEER.
ROBERT A. RYAN, Proprietor

Watch next week's issue of Hoard's Dairyman for more complete details.

— Seventh Annual —
CONSIGNMENT and DISPERSAL SALE
70 Registered Holsteins 70
Oct. 21 Fair Grounds Ann Arbor, Mich.

The entire herds of Wm. Bartlett, Plymouth, Mich., M. E. Brown, Jonesville, Mich., with a consignment of 48 head from other good herds.

WASHTENAW COUNTY HOLSTEIN BREEDERS'
W. L. SPAULDING, SEC.,
CHELSEA - - MICHIGAN

For Sale or Exchange

LORD FAYNE VALDESSA NO. 187263, proven sire. Dam's record seven days 30.61 lbs. Milk 630 lbs. Thirty-day record 125.49 lbs., milk 2,589 lbs. Write
SLIVKA BROS., Plainview, Illinois.

BULL CALF

born Jan. 15, 1924. Dark in color, well built. Sire Calef Korndyke Johanna Ormsby whose seven nearest dams average over 1,000 lbs. butter in a year. Dam, Cary Ormsby Princess, now on semi-test. Her dam 21 lbs. butter 7 days as a 4 year old. PRICE $100.00. Photo and Pedigree on request.

KEWAYDIN FARMS, R.1
HERD "FEDERAL ACCREDITED"
J. A. Schmidt & Sons, Ladysmith, Wis.

Ozaukee Co. Holstein Breeders' Sale!
Including the Dispersal of the Cedarburg Canning Co. Herd
Oct. 21, Cedarburg, Wis.
10 A. M. — Ozaukee County Fair Grounds

53 REGISTERED HOLSTEINS, 35 HIGH GRADE HOLSTEINS. A large number of the pure-bred females are sired by or bred to such well bred bulls as SIR BESS ORMSBY LASS, a 26-lb. son of Sir Pietertje Ormsby Mercedes 37th. PABST CREATOR CRESS, a good son of Creator Ryanbe Korndyke Bess Burke, a 26-lb. son of Sir Korndyke Bess. In the Cedarburg Canning Company Herd there are a fine lot of granddaughters of Cedar Lawn Champion 34th.

COL. O. G. CLARK, Auct. For catalogs and further information address THEO. F. WITTENBERG, Cedarburg, Wis.

Holstein Sale --- Sparta, Wis.
Friday, October 31st, 1924
20 Pure Bred Springers and Milkers
40 Grade Springers and Milkers
20 Open Pure Bred Heifers
10 Serviceable Pure Bred Bulls

All Animals T. B. tested. F. E. BLAKE, Auctioneer
GEORGE J. WEINER, Secretary CHARLES VANDER SCHAAF

Rock County Holstein Breeders'

SIXTH
Semi-Annual Sale

JANESVILLE, WIS.
Wed., October 29

Sale in Heated Pavilion at Fair Grounds

75 Head Selected Holsteins

21—REGISTERED HOLSTEIN COWS—21

All good, young, sound, cows, all fresh or due to freshen about Sale Time. Many of them with good A. R. O. records and good cow testing association records including Tietje Vale De Kol, with a C. T. A. record of 746 lbs. butterfat, 21,742 lbs. milk in one year.

15—GRADE COWS—15

All young and sound and due to freshen or fresh at Sale Time. Most of these cows have good C. T. A. records and have been selected from some of the very best herds in Rock County. We think they are the best bunch ever offered for sale in Southern Wisconsin.

20—REGISTERED BRED HEIFERS—20

Due to Freshen about Sale Time. They have the size—years of breeding and big production back of them. A high class lot in every respect.

4—REGISTERED YEARLING HEIFERS—4
Every one a "Pippin"

15—REGISTERED BULLS—15

All of serviceable age and all good ones. The best bunch we ever sold sired by bulls whose dams have high 7-day and yearly records and from A. R. O. cows and good C. T. A. cows. Mr Goldthorpe is consigning one of the best bulls ever sold in Wisconsin—the dam of his sire is a world's record heifer and his own dam has a record of 34.62 lbs. butter in 7 days, 682 lbs. milk in 7 days.

Clean Cattle from reliable farms. Many from Federal Accredited Herds sold subject to 60-day retest.

CATALOG READY OCT. 15th. IT TELLS THE STORY

Write John W. Jones, Milton Junction, Wis.

We invite buyers and others interested in good cattle to spend the day with us. Cement highways in and out of Janesville.

Iowa County Holstein Sale
135 GOOD GRADES and PURE BREDS will be sold
OCT. 22-23—MINERAL POINT, WIS.

There will be:—

15 straight topped young bulls, 6 months to 2 years old from A. R. O. dams. 40 typy young cows bred to freshen within the next 3 months, most of them with A. R. O. or C. T. A. records. 20 excellent 2-year-old heifers and a few 6- to 8-month-old heifers; many of these were prize winners at our fall fairs. 2 carloads of choice grade springers and 20 first class grade yearlings bred for spring freshening.

These are good, clean cattle. Not a 3-teater or poor quarter in the lot.

For further information write J. ROY GORDON, Sales Mgr., Mineral Point, Wisconsin

With the Juniors at the National

(Continued from page 417)

number of old friends. F'rinstance, there was A. G. Kettunen, otherwise known as "Ket", assistant state club leader of Michigan. Other leaders with him were Paul Banker, Art Hagen, and E. C. Sackrider. These men were looking after a bunch of some forty Upper Penninsula club members including my good friend, Francis Pelletier. Then there were some more Michiganders—Nevels Pearson, assistant state club leader, L. H. Matthias, Hillsdale county club leader, and R. A. Turner formerly state club leader, now with the club department of the U. S. Department of Agriculture. Mr. Matthias had several Hillsdale county club members with Coe Emmens among them. Pearson had the judging boys.

Well, sir, after the chicken, baking powder biscuits, gravy, potatoes, and other good things had disappeared from the table as quickly as though a cyclone had swept them off, pandemonium broke loose. It nearly cracked the roof of the concrete grandstand. I have attended many big football games, attended by thousands, also basket ball games and baseball, but never have I heard more enthusiasm uncoiled than rent the air at this banquet. Imagine twenty states, represented by lusty, husky, big-voiced boys and girls, yelling and singing at once. It's a hair-raiser! I musn't forget to tell you, though, that Mr. Herrington *did* lead us in some good songs.

T. A. Erickson was toastmaster, and a good one he was, too. The first thing he did was to call upon a representative from each state for a few words. Invariably the clubber said several nice things about the good time he and his fellow club members were having. For impromptu speakers they were all mighty good. Mrs. Nellie Kedzie Jones, "Aunt Nellie", told the boys and girls the story of the milk fairies. Dr. Dorward delivered "The Master Key" in a most fascinating way. Last but not least Mr. Noble announced the winners of the judging contest. Here they are:

Iowa first; Nebraska, second; Minnesota, third; Maryland, fourth; and Indiana fifth. The honor of being the highest individual went to Harlan Leonard of Iowa followed by John Chambers of Minnesota with Raymond Nixon, Nebraska, third and Donald Johnson of Indiana and Amos Holter of Maryland tied for fifth.

Wednesday, the demonstration teams continued in their contest. Early in the morning the Blue Valley Creamery trip winners left with G. L. Noble for an all day trip to Chicago. Parties also left to visit leading dairy farms in the neighboring territory, including the famous Pabst Stock Farm and Carnation Stock Farm. After the noon meal the boys and girls had the privilege of hearing Harold Gaulrapp, a member of the Illinois champion junior judging team last year. Harold told all about his trip to England this summer, also Switzerland, Islands of Guernsey and Jersey, and Scotland. He described the international contest in England and admonished the Iowa team to fight all the time and they, too, would return victorious and bring the cup back for permanent possession in this country. Harold is a Hoard's Dairyman Junior. We're proud of you, Harold, old man. "Dad" Wise, coach of the Illinois team also spoke.

Mr. Frisbie announced the winners in the health contest. Minnesota and Pennsylvania received high honors. "Monica Zurn of Minnesota was the healthiest girl with a score of 98.3. Charles Carter of Pennsylvania is the highest scoring boy. His score was 98.—" Here Mr. Frisbie paused, then, "This is once when a girl beats a boy." Yelling from the girls. "If you don't stop to read fractions. Charles Carter's score was 98.5." Loud applause—evidently the boys appreciated the victory. There were seventeen contestants entered. I had the photographer take Monica's picture but he wasn't used to photographing such healthy girls and it did not turn out well.

On Wednesday evening the club members had a rare treat—a theatre party given by the Rotarians of Milwaukee. Every member of the party—200 strong—had a fine time. Special cars were chartered to take the clubbers from and to camp. Thanks, Rotarians!



IOWA JUNIOR JUDGES WIN CHAMPIONSHIP HONORS
Left to right: Coach V. B. Hamilton, Harlan Leonard, Lester Olsen, Raymond Monahan.

Thursday arrived and brought a battle royal in deciding the demonstration team contest. When all teams had demonstrated it was found necessary to have two teams give their demonstrations again, Nebraska and Minnesota, to work off the tie. This took until the noon hour. Entertainment at meals abounded. At noon I gave the members a solo on my musical saw, sort of a little novelty act. A juvenile band of 150 pieces then came up and gave several stirring selections. The band came from Janesville, Edgerton, and Evansville, (Wisconsin) high schools. Girls as well as boys played in it. In fact, a girl played the bass drum and another the snare drum.

An important announcement was made after the band concert. E. L. Austin, judge of demonstrations, gave his decisions. When the smoke had cleared away the laurels rested with Nebraska. Minnesota was a mighty close second. Raymond Nixon and Olin Brown, the Nebraska team, gave a corking good demonstration on judging a dairy cow. Judge Austin's all star team was composed of Raymond Nixon, Nebraska, and Le Roy Kohler of West Virginia. The all star girls' team was made up of the two girls on the North Dakota team, Mary Cotner and Edna Vogel. He declared Mary Cotner to be the best girl demonstrator. Raymond Nixon was the best boy demonstrator. The Nebraska team gave their demonstration once after dinner, posed for the photographer, and then pulled for home. They were coached by County Agent J. H. Claybaugh, and State Leader L. I. Frisbie.



LILA SCHMID AND HER BLUE RIBBON BROWN SWISS HEIFER, BROWNEY'S LAST

Club members and leaders left camp by the score Thursday afternoon. A new feature on the program was the Milwaukee nurses' calf club judging contest. Prizes were given to the winning boys and girls by the Gridley Dairy Co. of Milwaukee. The nurses picked those calves and their owners which appealed to them the most.

The weather was fair and windy on Friday morning. Shortly after nine o'clock the first class was led into the ring, Brown Swiss bulls. The judges were J. P. Eves of the Dairy Farmer and L. V. Wilson of the University of Minnesota. Mr. Bewick, superintendent of the club department, asked me to act as clerk in the ring and take down officially the awards. I was glad to do this as it gave me an opportunity to meet personally the winning boys and girls. At my elbow during the day was Guy Noble, genial editor of the S'News. He took down the awards hot off the books. F. E. Heinzelman, county club leader from Syracuse, N. Y., assisted in selecting premier showmen, as did Mr. Noble, and E. R. McIntyre of the Wisconsin Farmer.

At noon, Earl Cooper, junior extension leader of the Holstein-Friesian Association of America, led the calf club exhibitors in singing. It was at this time that the "barber shop quartette" was discovered, Earl Cooper and R. A. Turner, tenors, T. L. Bewick second tenor, W. McNeel baritone, and Guy Noble second bass. They turned out some great harmony and got several encores.

Judging of calves was resumed at 1:15 and continued until late. This was followed by the junior showmen's contest staged by the Wisconsin Live Stock Breeders' Association and open to all.

I totalled up the calves shown and counted 164 calves that entered the ring. Of this number Holsteins led with 78 entries, Guernseys were next with 32, Jerseys third with 30, Ayrshires fourth with 15, and 9 Brown Swiss calves. Since Mr. Noble gave such a complete list of awards in the last issue of the S'News, I'm going to copy the first three places in each class from there.

After placing each class, the four first prize winners were brought together and a grand champion sweepstakes award was made in each breed, the winners being as follows: Holstein: Clarence Halle, Wisconsin, on General Homestead Mercedes. Jersey: Barbara Luchsinger, New York, on Raleigh's Golden Mazie. Ayrshire: Harold Nelson, Wisconsin, on Edgertoune's Piry. Brown Swiss: Lila Schmid, Wisconsin, on Maiden's Master. Guernsey: Marple Mountain, Iowa, on Cherub's Beautona of Iowanola.

The winners in the Showmen's Contest were: 1st, Robert Seitz; 2nd, Clifford Keppen; 3rd, Irene Davis, all of Wisconsin.

In addition to the prize money usually awarded by the National Dairy Exposition, the sweepstakes winners were presented with gold watches provided by the Blue Valley Creamery Company. The showmen were presented with awards by Mr. Frank Fox, of the Wisconsin Live Stock Breeder's Association.

The Holstein Heifer Class (Calf) was the largest of any shown during the day and made a wonderful appearance in the ring, completely filling the arena, which was roped in by the officials. Fifty-six head were in this one class. The first awards in all classes were as follows:

Holsteins

Heifer Calf—1st, Alfred Biels; 2nd, Elmer Stolper; 3d, Caroline Harley, all of Wisconsin.
Yearling Heifer—1st, Earl Crowell; 2nd, Irene Davis; 3rd, Stanley Stevens, all of Wisconsin.
Two-year-old Heifer—1st, Edith Clark, Wisconsin.
Grade Heifers—1st, Vernie Suchow; 2nd, Stanley Buschendorf; 3rd, Hartwig Hendrickson, all of Wisconsin.
Bull Calves—1st and Grand Champion Sweepstakes; Clarence Halle; 2nd, Loraine Zimmerman; 3rd, Donald Lalor, all of Wisconsin.
Wisconsin County Herds—1st, Sheboygan; 2nd, Clark; 3rd, Rock.

Jerseys

Heifer Calves—1st and Grand Champion Sweepstakes. Barbara Luchsinger, New York; 2nd, Lenore Wyatt, Wisconsin; 3rd, Foy Mendenhall, Indiana.
Yearling Heifer—1st, Adolph Mistele, Wisconsin; 2nd, Foy Mendenhall, Indiana; 3rd, John Luchsinger, Jr., New York.
Two-year-old Heifer—1st, Foy Mendenhall; 2nd, Joe Sumner; 3rd, Don Hinkle, all of Indiana.
Grade Heifer—1st, Mildred Antholt, Wisconsin.

Ayrshires

Heifers—1st and Grand Champion Sweepstakes, Harold Nelson; 2nd, Robert Seitz; 3rd, Daniel Hanrahan, Jr., all of Wisconsin.
Bull Calf—1st, Wm. Walvoord, Wisconsin.

Brown Swiss

Heifer Calf—1st, Lila Schmid; 2nd, Elmer Tubbs; 3rd, Carl Nelson, all of Wisconsin.
Bull Calves—1st and Grand Champion Sweepstakes, Lila Schmid; 2nd, Fritz Lubcke; 3rd, Elmer Tubbs, all of Wisconsin.

Guernseys

Heifer Calf—1st and Grand Champion Sweepstakes, Marple Mountain, Iowa; 2nd, F. E. Fox, Jr., Wisconsin; 3rd, Helen Boyd, Wisconsin.
Yearling Heifer—1st, Everette Gusse; 2nd, Irving Gerhart; 3rd, Helen Kerston, all of Wisconsin.
Grade Heifers—1st, George Jordan; 2nd, Francis Hippe; 3rd, Theodore Drakley, all of Wisconsin.
Bull Calves—1st, Sanford Anderson; 2nd, Everette Smithback; 3rd, Albert Fruit, all of Wisconsin.



SHEBOYGAN COUNTY (WISCONSIN) WON THE CHAMPIONSHIP HOLSTEIN HERD HONORS

The man who sold his land and went to the ends of the world seeking diamonds returned home, poor and old, only to find that they were mining diamonds from the land he had sold. You, too, may find the best things at home, not far away.



SPEEDY relief follows the first application of Gombault's Balsam. This 41-year-tested liniment penetrates without blistering—conquers the most stubborn pain or ache.

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AS A VETERINARY LINIMENT Gombault's Balsam also is the remedy which years of use have proved effective and safe for most horse ailments. The Lawrence-Williams Co., Cleveland, Ohio.

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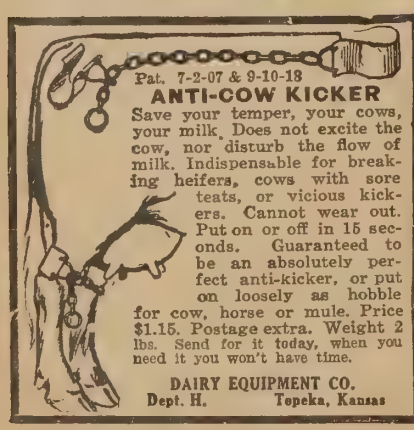
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It will pay you to investigate this wonderful new industry. We solicit your consideration.

DR. O. STADER, Secretary, Oconomowoc, Wis.
Members of the National & Wis. Fox Breeders' Ass'ns.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Rectum Obstructed by Cyst

We have seen on several occasions a peculiar condition in cattle caused by collection of a large quantity of fluid in a sack or cyst located between the rectum and vagina, in the loose tissues, and so bulging upward that the passage for feces is partially or wholly shut off. The fluid gathers gradually. For a time it does not cause apparent discomfort but when the passage becomes so occluded that voiding of feces (defecation) is rendered difficult, straining draws attention to the condition and the animal is found to be in considerable distress. If not relieved by operation the fluid continues to increase in quantity until passage of feces stops and the animal soon has colicky pains when in that condition. Straining is frequent and attended with pain. The animal may even bellow or groan. Urine is voided in spurts during the straining spells. So sick may the animal become that it loses appetite, may stop chewing the cud, and shrink in milk flow results. The fluid is collected in the pouch of Douglass and has to be liberated by the surgeon.

For the operation the animal should be confined in stocks, if available, or she may be confined in stanchions and her hind legs roped to prevent kicking. The rectum should be flushed out with warm water to remove the collected feces. The fingers may have to be used to bring away the first of the feces. Oil may then be injected freely or the parts well lubricated with a decoction of slippery elm bark, unsalted lard, or vaseline. The hand may then gently be introduced and discovers the floor of the rectum pressed upwards by the fluid mentioned. Surgical treatment now consists in insertion of a trocar and canula, with a rubber tube attached, to draw or siphon the fluid from the cyst. A curved metal catheter may be used for the purpose. The hand guides it to the proper place and it is then thrust into the cyst. When the flow slows up manipulation with the hand may be necessary for extraction of all fluid. Relief is at once apparent. The animal stops straining, defecates normally, and soon goes to eating. A second operation rarely is required.

Garget

I am getting so many three-teated cows. Can you tell me what makes that? I am using a milking machine. After I use the milking machine I always strip them. They get a hard bag. Do you think that you spoil a cow by using the machine? Some of them don't let the milk down. When do the cows give the most milk then, by hand or use the machine?

Rushford, Minn. P. B.

One cow, at least, is a carrier of a germ-caused (streptococci) form of mammitis, mastitis, or garget and the cups of the milking machine are carrying the infection from cow to cow. The infection may also be spread by the milker's hands or be contracted by the teats coming in contact with ground or floors contaminated with unsound milk or pus from an affected udder. The machine should be more carefully and thoroughly sterilized and the cups should be perfectly adjusted. A cup not so adjusted may cause simple garget and is commonly followed by the infectious form of the disease. Isolate affected cows and milk them last, by hand. Catch abnormal milk in a pail containing a disinfecting solution and then throw it out in a place to which cows have not access. "Dry off" and fit "three-teated" cows for the butcher. Have a veterinarian give preventive and curative treatment with mastitis bacterin and follow his instructions as to local treatment when udders become affected.

Hematuria—Suppressed Estrum

Could you tell me what causes my cows to pass bloody urine?

Have a cow that came fresh 6 months ago and she has not bred yet. What should I do? She has only had one calf.

Birkenfield, Ore. W. J. B.

The cow is probably affected with hematuria, popularly called "red water", that is prevalent in the Pacific Slope states. It is attributed to microorganisms, possibly protozoan, existing on wild pasture and possibly in surface water. Another theory is that it is caused by acrid plants in the pasture. No specific remedy has been found, so far as we are aware, but the veterinarians of the agricultural experiment stations of Washington and Oregon have been investigating the disease for years and may have something new to report. Apply to them for bulletins on the subject. Meanwhile keep the cow off pasture. Give her an entire change of feed and twice daily give her one dram of powdered alum and ½ a dram of dried sulphate of iron in feed. Increase the doses gradually, if required.

A veterinarian should be employed to manipulate the ovaries by way of the rectum, to rupture cysts or dislodge persistent "yellow bodies" which sometimes cause suppression of heat periods (estrum). Meanwhile flush out the vagina 2 or 3 times a week with a gallon or more of blood warm boiled water tinged light pink with permanganate of potash.

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HOARD'S DAIRYMAN
Fort Atkinson Wisconsin

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

SALE ANNOUNCEMENTS

Oct. 17-18—Holsteins. Dispersal of Daisy Hill Herd, Chagrin Falls, Ohio.
Oct. 21—Guernseys. Goldmead Farm's annual sale of Registered Guernseys at Versailles, O. Spiller & Worch, Owners.
Oct. 21—Holsteins. Washtenaw County Sale, Ann Arbor, Mich. W. L. Spaulding, Sec'y., Chelsea, Mich.
Oct. 21—Holsteins. Ozaukee County Holstein Breeders' Sale, Cedarburg, Wis. Theodore F. Wittenberg, Sale Manager.
Oct. 23—Southern Illinois Holstein Breeders' Annual Sale. 75 head. S. E. Gehrig, New Douglas, Ill., Mgr.
Oct. 23—Holsteins. Howell Sales Co., Howell, Mich. Guy Wakefield, Fowlerville, Mich., Sale Manager.
Oct. 24—Holsteins. Dispersion of the Spring Valley Stock Farm herd at Pittsford, Mich. Elisha Bailey & Son, Owners.
Oct. 24—Holsteins. Consignment Sale. R. G. Powell, Sale Mgr., Howell, Mich.
Oct. 27-28—Holsteins. Otter Tail County Sale, Fergus Falls, Minn.
Oct. 28—The Walworth County (Wis.) Holstein Breeders' Association Sale. Ben Bachhuber, Sec'y., Elkhorn, Wis.
Oct. 29—Postponed Sale Montgomery County Holstein Breeders' Ass'n. at Rockville Fair Grounds, Rockville, Md.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 29—The Rock County (Wis.) Holstein Breeders' Ass'n. Sale, Janesville, Wis. John W. Jones, Milton Jct., Wis., Sec'y.
Oct. 29-30—Holsteins. West Salem, Wis. Western Wisconsin Holstein Breeders' Cattle Sales Ass'n. O. G. Clark, Sale Mgr., West Salem, Wis.
Oct. 30—Holsteins. The Stephenson Co. Holstein-Friesian Ass'n., Chas. H. Rosenstiel, Sale Manager.
Oct. 30-31—Holsteins. The Randolph Holstein Association, Randolph, Wis.
Oct. 30-31—Holstein Dispersal Sale. Crozer Dairy Farm, Upland, Pa.
Oct. 31—Holsteins. Monroe Co. Holstein Breeders' Consignment Sale, Sparta, Wis.
Oct. 31—Holsteins. Enock Carlson, Roberts, Wis.
Nov. 1—Holsteins. Place & Kellogg Dispersal, Dorset, Ohio. Managed by Ohio Holstein-Friesian Association.
Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 3—Jerseys. Barron County Jersey Breeders' Ass'n. Sale at Barron, Wis.
Nov. 4—Walworth Co. Holstein Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 5—Holstein Dispersal. Robert A. Ryan, R. 2, De Pere, Wis.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.
Nov. 11—Holsteins. District Holstein Sale, Berea, Ohio. Under management Ohio Holstein-Friesian Association.
Nov. 17—Holstein Dispersal, Oak Hill Stock Farm, John H. Smith, Prop., Crown Point, Ind.
Nov. 18—Holsteins. Annual Quality Sale. Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Sec'y., Waukesha, Wis.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 25—Holsteins. Dispersal Sale of H. H. & R. C. Walker at Du Quoin State Fair Grounds, Du Quoin, Ill.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.

POULTRY On The DAIRY FARM



O. A. HANKE

Getting Ready for Winter Eggs On the Farm

This winter promises to be a very favorable winter to the poultryman, whether he be the specialty poultry farmer, or the dairy farmer with his small flock of layers as one unit of his diversified farm. The past spring was, in a measure, unfavorable for the growth of chicks and aided materially in the high mortality experienced by many chick raisers. This mortality is going to be reflected in the form of a short crop of pullets this fall.

Poultry on the dairy farm is a very essential unit. Eggs help pay the grocery bills and in many cases buy the clothes for the family. A dairy farm is incomplete without a goodly flock of layers.

Pullets Fill the Egg Basket

The first year a fowl lays, which is known as the pullet year, is the most profitable period of production. During the pullet year practically all chickens lay their greatest number of eggs. The more eggs a hen lays in a year, the greater will be the profit. Statisticians figure that 100 eggs are required from each hen to pay her feed bill. All eggs laid above that number are profit. It behooves us then to keep the majority of that kind of fowl which is going to be the largest profit makers.

A hen in her second or yearling year of production on an average lays 88 per cent as many eggs as she laid in her pullet year and lays 88 per cent as many eggs in her third year as she laid in her yearling year. This illustrates why it is most satisfactory to maintain a goodly flock of pullets from which to expect the greatest profit.

Yearlings Should Be the Breeders

If one is to hatch chicks from one's own flock, it will be necessary to keep those pullets which came through their pullet year most satisfactorily, for the yearling year to be used in the breeding pen. These pullets which are now yearlings should be mated to pure-bred cockerels from high production ancestry. On the average the safe figure is 75 per cent pullets and 25 per cent yearlings.

Preparing the Pullets for the Lay

The dairy farmer's pullets are still on range, whether it be a green field of alfalfa or clover, or whether it be the lawn or the grass about the farm yard. March and early April hatched pullets should be ready to lay by the first of October and should get into their heaviest production by Nov. 1st, at which time egg prices will be unusually high. At this time of year the pullets should be carefully observed for comb and wattle development. If a majority of the larger pullets are developing an unusually large comb, it indicates that they have access to feeds too high in protein. Some pullets will naturally develop sexually faster than others but the majority of them should be used in this observation.

Conditioning the Pullets

If speedy development is noticed in the pullets it will be well to reduce the amount of protein in the mash to a nominal per cent. A good ration at this time will consist of 100 lbs. ground corn, 100 lbs. ground oats, 100 lbs. wheat bran, 100 lbs. wheat middlings, 20 lbs. meat scrap or tankage, 1 lb. salt.

The scratch mixture to be fed with this should consist of 3 parts cracked corn and 1 part wheat or oats. The idea at this time should be to develop a large chicken with a strong frame, well covered with fat.

Bringing Pullets into Production

Several weeks before they are ready to lay they should be changed gradually to a ration composed of equal parts by weight of ground corn, wheat middlings, ground oats, wheat bran, meat scrap or meat meal, 2 lbs. salt. And a grain mixture of 200 lbs. cracked corn and 100 lbs. wheat or oats.

The pullets should not be forced excessively through the use of wet mash during the first few weeks of lay, for this may prove to be too great a strain on their system and may throw them into a molt. This fall molt in pullets is very undesirable since a complete molt usually results, which withholds the pullets from again laying until early spring.

Prepare to Keep Records on the Pullets

Trapnesting, which is the only accurate means of determining the number of eggs a hen will lay per year, is too costly a system for the average farmer to use. There is, however, another very practical method of checking a pullet's production in a certain measure at least. When the pullets enter the laying house in fall they should be banded on the left leg with a colored celluloid band to denote their age. The right leg should bear no band at this time. During late December or early January, it will prove very profitable to the farmer if he will take a little time to go through his pullets to ascertain which have already begun laying and which thus far have failed to lay. This can easily be learned through the pigmentation test. Those pullets which have faded eyerings, faded vent, and a faded or partially faded beak have been laying for some time. These pullets will also show two or three finger capacity between the keel or the breast bone and the pubic or the lay bones, which are found on either side of the vent. Those pullets which have not begun laying will have the breast bones and lay bones almost close together and the intervening flesh will be hard to the touch. Those pullets which at this time show the greatest period of production should have a blue band placed on the right leg. Those which have laid a shorter length of time a red band, and those which have not yet begun to lay, a white band.

Later on in March this same procedure should be repeated with the same system of banding. Later in June when many pullets cease laying, the same procedure should be used, and those pullets which have quit laying give a white band. These may be sold at this time for they will undoubtedly not pay for their feed the rest of the season. In August they should be gone over again and those which have ceased laying should be eliminated. At this time the books should be closed, "so to speak", on this flock of pullets. Those birds which should have four blue bands on their right leg should unquestionably be kept for the yearling year to be used as breeders. Those birds which have less than two blue bands should undoubtedly be eliminated. This system of record keeping on a flock of pullets is very satisfactory and requires only a minimum amount of time.

Summary

The previous paragraph is undoubtedly a trifle out of the subject but the writer has incorporated it to stimulate the dairy farmer, who now has a flock of pullets growing, into caring for these pullets properly so that they may bring the greatest amount of profit. By illustrating how checks may be had on their production the writer hopes to interest some poultrymen who do not have time to trapnest but are very desirous to have some check on their flock.

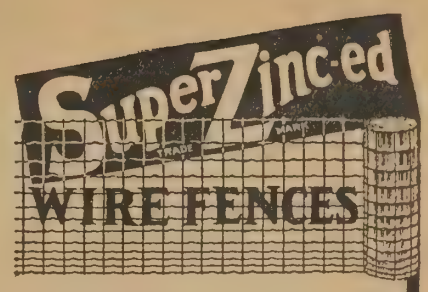
Plan now to properly care for your pullets this winter.

Feed a balanced ration as illustrated by the laying mash cited above.

March and April hatched pullets should get into heavy production by Nov. 1st.

Do not excessively force pullets by the use of wet mash during the first few weeks of production.

Treat the pullets gently and they will learn to like you and lay more eggs.



Here is what every farmer wants, "Super-Zinced" Wire Fences. A special formula of open hearth steel wire is "Super-Zinced" by our improved process and takes on an EXTRA HEAVY AND WELL BONDED coating of zinc that will not crack or peel. This produces fences of great strength and durability and establishes a new standard of fence value.

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of course, are "Super-Zinced." Their natural sturdy construction and superior rust protection assure long and satisfactory service. Both Columbia and Pittsburgh Perfect brands of fence are "Super-Zinced" and include standard styles of farm, poultry and garden fence; also our attractive designs of lawn and flower fences.

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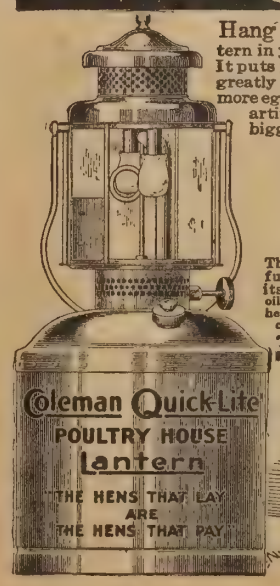
FRISCO LINES

These conditions are behind the rapid growth of the dairy industry in the Ozarks. They make it possible for a man to start with much less capital, with smaller outlay for animal shelter than would be necessary in the north, and with every opportunity for success. All the forces of nature are in his favor—and efficient railway service provides the outlet for his products.

Hard roads, good schools, progressive, growing communities and the healthful climate make the Ozarks a most desirable homeland. In such surroundings the Ozark Dairyman is a big factor in a growing state. Write me!

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Hang the new Poultrymen's Coleman Quick-Lite Lantern in your hen house a few hours these winter nights and mornings. It puts your hens on a spring laying schedule. Longer feeding hours greatly increase egg production. Users report from 15% to 20% more eggs Poultry authorities and practical poultrymen recommend artificial light to boost the egg yield. Thousands are now making bigger profits by getting more eggs while prices are high.

Coleman Quick-Lite Poultry House Lantern

This new, improved Quick-Lite with extra large fount holds 5 quarts of fuel—gives 50 hours of brilliant light from one filling. Makes and burns its own gas from common motor gasoline. Brighter than 20 old-style oil lamps. Can't spill fuel even if tipped over. Lights with matches. Built of heavy metals. Will last a lifetime. Mica globe. Won't blow out. Write for complete information about "More Light—More Eggs." Address Dept. HD13.

THE COLEMAN LAMP COMPANY, Wichita, Kans.
PHILADELPHIA CHICAGO LOS ANGELES TORONTO, CANADA



A Trip to the British and Channel Isles

(Continued from page 397)

borne by the government. Fully 90 per cent of the cows entered in these societies are Ayrshires. Last year 32,000 cows were tested and the average production amounted to 7,500 pounds per cow. When the production of the average Ayrshire cow is compared to the average production of the milk cow of Michigan the figures are startling. The average cow of Michigan produces less than 4,000 pounds of milk annually while the 25,000 in cow testing associations last year in Michigan made an average of 6,500 pounds of milk per year. Greater still is this comparison in favor of the Scotch cow when one considers that the cow in that country produces her 7,500 pounds of milk in an average period of 40 weeks or less and subsists on pasture alone.

Another interesting section of Scotland is the beef producing section to the north coast. This is the home of the Scotch Shorthorn and the Aberdeen Angus. The most interesting feature about the development of these thick fleshed breeds of cattle is the fact that the wonderful grass in this section has made their development possible. The cattle get very little grain which consists principally of oil cake which is fed with straw or roots during the winter months. The cattle are kept in good flesh all the time. The breeder does not allow the cattle to get in a thin, run-down condition as he figures that it is most economical to keep the cattle in a good condition all the time.

The North of Scotland Agricultural College is located in Aberdeen. Adjoining the college is the Rowett Institute which was officially opened by "Queen Mary" in September, 1922. This institution was founded for the purpose of carrying on research work with live stock. Dr. Orr, the director of the institute, and his associates are conducting work along fundamental scientific lines and this is the only institute of its kind in Great Britain. The work being carried on here may be compared favorably with the work done in many of our state experiment stations in America.

The Channel Islands

An interesting study in the development of breeds of live stock is to be found on the Channel Islands. These islands, the home of the Jersey and Guernsey, are located off the coast of France, but are under the British rule. Jersey Island, the home of the cattle by this name, is the largest of the group. Guernsey is the next in size and is the home of the Guernsey cattle. Guernsey cattle are also found on the Island of Alderney and Sark.

The trip from England across the British Channel to the Channel Islands must of necessity be made during the day time. The heavy fogs that prevail at many seasons of the year make navigation very difficult. As we approached Guernsey, large jagged rocks were to be seen. These perilous waters have been the scene of many very serious wrecks. The boats bound for the islands first dock at Guernsey and thence to Jersey. If the fogs fail to clear up before the boats get near the island they anchor off the coast until conditions are favorable for approaching the harbor with safety. Often the boats lie outside the harbor all night because of their inability to land with safety before night fall. Many people from England spend their "holidays" or vacation on the islands. Jersey seems to be the most popular island for the resorters.

On landing at the pier in Guernsey I saw great stacks of baskets filled with tomatoes ready to be shipped to England. Some breeders in America have the impression that these islands depend largely upon the income from their cattle for their existence. Such is not the case, but they depend upon the products of the soil, such as potatoes, tomatoes, grapes, figs, pears, peaches, and many other truck crops for their principal income. The great productiveness of the tilled land, which amounts to $300 to $400 per acre, is largely due to the use of greenhouses and hot beds. Flowers and bulbs are grown in great quantity; one is impressed with the variety of blossoms of all kinds of flowering plants.

The land sells for $1,000 to $1,200 per acre and rents from $50 to $60 per acre per year. The cattle can be seen tethered in small pasture lots all over the island. The pastures consist of a mixture of alfalfa, clover, rye, and grass. Other crops, such as oats and vetch, furnish pasture. The maximum feed is obtained by the system of tethering the cattle. The animals are moved several times a day but only a few feet at a time. Consequently, very little pasture is trampled under foot. During the winter months hay and roots make up practically the entire ration.

On Guernsey, as in some sections of England and Scotland, one gets the impression that little effort is being made to improve the cattle as compared with the improvement being made in America. On account of the heavy demand for Guernseys for export to America and England many breeders on Guernsey have sold the best cattle from their herds and the effect of this practice is quite noticeable. It is possible to get a price on any animal and it may be fairly stated that this practice is responsible for America as well as England having better conformed and higher producing cattle of the breed than are to be found on Guernsey.

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Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

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Five Ayrshire Bull Calves

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High Producing Ayrshires
AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

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Attractive Ayrshire Offering
BULL BORN APRIL 18, 1924

Color: white with brown cheeeks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

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must be combined in the breeding of your next sire. Our success in the showrings of the U. S. and the production of our herd insures you getting individuals from us that will make money for you. We are now offering six young bulls eight to fourteen months of age sired by HOWIE'S KING OF HEARTS or CAVALIER'S LORD ROSEBERRY. 6 bred heifers and 10 young cows. Write for prices and information.

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Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.

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Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

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Accredited Brown Swiss Herd

"FORMERLY KINNELON HERD"

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LEES' HILL FARM Morristown, N. J.

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FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

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Four choice bulls, 5 to 12 months of age, all out of Register of Merit dams. Accredited herd.

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Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write

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My herd of a little over 100 regi tered Jerseys is one of the best i the country today. A herd sire fro it will increase your production.

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Have been bred for many generations for type a heavy production. Best representatives of this gre producing family may be purchased at Randlei Farm, Lockport, N. Y. Bull calves and a few f males for sale. Write for our free 28-page booklet.

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The three-quarters brother to Raleigh's Torono's Meme, World's Champion Jr. 2-yr.-old Jersey, sired by Raleigh's Torono, a Silver Medal bull with over 30 in the R. O. M. If you are not in the 50-lb. list, you need him. Write us for pedigree and full particulars. Herd Federal Accredited.

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ALSO HIGH CLASS FEMALES for sale The bulls are from 1 to 2 years old, read for heavy service. They are of Oxford La and Golden Fern's Lad breeding. Sho prospects. The females are exceptionall good ones. Prices are very reasonable. Th herd is accredited.

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Have also a few heifer calves for sale.

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2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.

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and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.

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Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Life and Wealth

An insurance company vouches for the accuracy of the following rather interesting compilation from government statistics:

Out of every one hundred men starting in life at age twenty-five, at age sixty-five one is wealthy, four are well-to-do, five live on their earnings, fifty-four are dependent on the charity of relatives, friends, or the public, and thirty-six are dead.

Out of one hundred men of all ages, when they die, three leave $10,000 or over, fifteen leave from $2,000 to $10,000, eighty-two leave no income-producing estate with the result that of every one hundred widows only eighteen are left in comfortable circumstances.

Out of one hundred children finishing the fifth grade in grammar school, eighty-three finish the sixth grade, seventy-one finish the seventh grade, sixty-three finish the eighth grade, thirty-four finish first year high school, twenty-four finish second year high school, eighteen finish the third year high school, and thirteen finish the fourth year of high school. Of this same one hundred children, seven finish first year college, five finish second year college, three finish third year college, and only two finish fourth year college.



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THE AMERICAN GUERNSEY CATTLE CLUB
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Herd Sire—
LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.
CHAGRIN FALLS, OHIO
For prices and information, write
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BREEDING STOCK FOR SALE, May Rose blood. A few females with records over 600 lbs. fat. 6 bulls, 2 of serviceable age. All out of A. R. dams. Animals T. B. tested and guaranteed breeders. Prices right.
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—Registered—
Guernsey Bulls
15 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.
RALPH TRATT, Whitewater, Wis.

Thorn Hill Farm Guernseys

Have several well bred young Guernsey bulls for sale at reasonable prices. All my own breeding. May Rose and Glenwoods, out of A. R. cows with records from 500 to 750 lbs. of fat. Write for sales list to
AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS
SERVICEABLE BULLS with best of breeding for sale. Write
ERNEST W. SASS, Hoopeston, Ill.

FOREMOST GUERNSEYS
2 Bulls of Serviceable Age
Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.
EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.
N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

We Offer For Sale Young Bulls, Cows and Heifers
I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.
W. R. DUNLOP, ELBRIDGE, NEW YORK

Border Raider GUERNSEYS
Type — Uniformity — Production
WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)
Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.
Accredited herd No. 50474.
WADDINGTON FARM, Wheeling, W. Va.

A Well Bred May Rose Bull
Typy individual from A. R. dam with over 600 lbs. fat.
Price $250.00
AVALON FARM Macedonia, Ohio

GUERNSEY BULLS
We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.
Send for new list.
E. S. PERSON, Minot, N. D.

Hillswold Farm Guernseys
W. A. CLOUES, Mgr., Shrewsbury, Mass.

SARNIA FARM
—Cherub Guernseys—
We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.
CHAS. L. HILL & SON
Rosendale Wisconsin

10 Registered Guernsey Heifers!
MAY ROSE BREEDING. Some are from 500- and 600-lb. dams. Several are bred to a bull whose dam has 909-lb. record. Also several young bulls from 600- and 700-lb. cows.
DALE E. RUNDELL, Livingston, Wis.
ORE HILL FARM

100 to 500 HEAD of GRADE Guernseys and Holsteins For Sale
These cows are close springers, tuberculin tested, with lots of size and quality, and ready for interstate shipment. Write or wire for information. Address all inquiries to
O. G. CLARK & CO., West Salem, Wis.

Waukesha County GUERNSEYS
Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.
F. E. FOX, Secretary, Waukesha, Wis.

Buy a Four Pine Farm Bull!

ROMALA OF DREAMWOLD
Victor's Squire of Four Pine
Archer's Victor of Four Pine 67661 — Archer Girl's King Masher of Glencairne 49902; Colongue of Ellerslie 54890, 777.57 A.
PRICE $200.00
Romala of Dreamwold 105155 378 lbs. D- 261 days. — King of Chilmark 20,798. 27 A. R. daughters; Plato's Honesty of Iowa 48802 462 F.
F. K. BABSON HINSDALE, ILLINOIS

MARSH FARM GUERNSEYS
Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.
MARSH FARM - - - Waterloo, Iowa

EL JANE GUERNSEYS ARCADIA, MISSOURI
(85 miles south of St. Louis)
Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.
Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!
BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.
Federal Accredited
EL JANE FARMS, - Arcadia, Missouri

High Class Bull Calf

Falstaff's Wyoming of Upland Farms 68406
This calf is not priced cheap but he is well worth what we are asking for him. He is sired by Langwater Stargazer who is a son of Langwater Steadfast and out of Langwater Crystal. He is out of Falstaff's Wyoming of Upland Farms, a cow that has steady producing ability. Her records are: **9445.6 lbs. milk, 443.03 lbs. fat as two year old and 14748.8 lbs. milk, 679.26 lbs. fat Class A.** You want a bull at the head of your herd that comes from producing families. This calf is hard to equal. Write for price and description.
FLORHAM FARM, R. H. ALLEN, Manager, MADISON, NEW JERSEY

GOODHAND KINGSTON & SON'S
Guernseys Offered at Private Treaty
Because we have recently sold our farm and are breaking up partnership, we are forced to sell our entire herd. It includes 15 cows—most of them with A. R. records. Ten of their daughters by Imp. Itchen May King and 5 sons from a few weeks to 12 months old.
A 60-day retest on all animals and every one guaranteed a breeder.
This herd has been shown at state fairs and national dairy shows with credit for eight years.
Write or wire and we will meet interested visitors at Milwaukee or Waukesha.
GOODHAND KINGSTON & SON WAUKESHA, WISCONSIN

50 GRADE HEIFERS—Priced to Sell!
REGISTERED COWS and BULLS FOR SALE
We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.
We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.
LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin
PRODUCTION — TYPE
WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.
Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.
Send For New Price List

FOX RIVER VALLEY GUERNSEYS
Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.
Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS
We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Guernsey Bulls, Calves and Yearlings
May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.
RICHARD F. KLEMM, Baraboo, Wisconsin.

Homestead Farm Guernseys
FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to
JAMISON BROS., R. 2, Appleton, Wis.

IF
Your Next Herd Sire is Not Better than Your Present One, You Are Going to Lose Money
Buy a young bull calf from us and instill blood lines into your herd that we have been developing for years.
Herd Federal Accredited
HOARD'S DAIRYMAN FARM
Fort Atkinson, Wisconsin

ANTON'S KING CONFIDENCE 43517 A. R.
One of our herds sires.

Randolph Holstein Ass'n

Semi-Annual Quality Sale

Of Registered Holsteins. Also 1-day Sale of High-grade Holsteins

Thursday and Friday, OCT. 30-31, at Randolph, Wis.

Reached by C. & N. W. and C. M. & St. P. Railroads

The calves belonging to the members of the Calf Club will be disposed of at this sale. Cows of splendid breeding with records up to 25 lbs. and in calf to richly bred bulls—heifers and serviceable bulls. Most of these cows are fresh or due to freshen by time of sale. All animals tuberculin tested.

TERMS—Cash or 6 months' time on bankable notes bearing 6% interest.

For Catalogs write S. W. PIERCE, Sec., RANDOLPH, WIS.

Don't Forget! ENOCH CARLSON DISPERSAL SALE! At ROBERTS, WIS., OCTOBER 31st

40 HEAD REGISTERED HOLSTEINS—33 females, cows due to freshen before December 1st. One of the sires used on this herd in recent years won first and second in his class at the following fairs and shows: New York, Connecticut, Iowa, Nebraska, Kansas and Waterloo Dairy Cattle Congress. A chance to buy individuality and production.

BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

Bargains in Registered HOLSTEIN BULLS--- all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.

Hargrove & Arnold, Norwalk, Ia.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO

C. L. Spaulding, Mgr. Warren, Minn.

A YEARLY RECORD BULL— Ready for Heavy Service



SIR WALKER SEGIS LYONS was born Feb. 19, '22. He is well grown and a good individual. His dam produced 20718 lbs. milk, 823.86 lbs. butter in a year as a 2-year-old. His sire by Piebe Laura Ollie Homestead King is from a 1230-lb. dam with 30814 lbs. milk. Write today for further details if you want a sire with the best of breeding and production. You'll find the price very reasonable.

CARLETON COLLEGE FARMS, Northfield, Minn.

FEDERAL ACCREDITED HERD

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,

D. G. Twentyman, Manager Rochester, Minnesota

OUR HERD SIRE Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin

Herd under federal supervision.

FOR $100—Grandson of Sir P. O. M. 37th

Dam's cow testing association record 351 lbs. fat as a junior two year old in 10 mo. Grandam official record 700 lbs. butter 305 days at 10 years. Born March 6, 1924.

B. A. NORRIS, ANOKA, MINN.

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:

AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS

303 Bellin Bldg., Green Bay, Wis.

Ormsby-Homestead

HEIFERS and BULLS

FOR SALE

Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

A Clean Herd
Under Federal Supervision

MILFORD MEADOWS STOCK FARM

J. C. CORT, Mgr., LAKE MILLS, WIS.

HOLSTEINS AT PUBLIC AUCTION

Good Producers - - Health Guaranteed

BUY THEM IN THE

Crozer Dairy Farm Complete Dispersal!

THURSDAY and FRIDAY **OCT. 30-31** *At the Farm —* UPLAND, PENN.

110 Pure Bred Holsteins -- 50 Heavy Milking Grades

PRODUCTION—The pure bred cows of milking age have practically all made good year records under ordinary dairy conditions, milking two or three times a day and with no forcing. Many of them have large seven-day records as well. The grades milk from 60 lbs. up daily when fresh. They are good, profitable cows, sired by our good pure bred sires.

HEALTH—The herd has been under State and Federal Supervision for some years and the last two tests were 100% clean. We believe the herd to be absolutely clean and are so guaranteeing it. Our Retest Guaranty has no strings attached. Take your purchases home. Test them again within sixty days. If they react and lesions are found, purchase price will be refunded, less the value of the carcass.

Read the Announcement in the Catalog --- Ready October 15

JOHN P. CROZER, Owner

Upland Pennsylvania



A Top Notch Bull for a High Grade Herd—Only $150

COLONEL AAGGIE SEGIS WALKER, BORN OCT. 31,1923

His dam is a 17-lb. junior two-year-old daughter of SIR WALKER SEGIS HOMESTEAD, a proven show sire with over 30 A. R. O. daughters, while the sire of this calf is a strongly "COUNT"-"PIEBE" bred bull whose five nearest dams average over 1,090 lbs. butter in a year.

This calf is a broad butted, deep middled, straight top-lined, all around good individual, one you will like. Send for pedigree and photo.

A. J. LASHBROOK - Northfield, Minn.

Western Wis. Holstein Breeders' Ass'n CONSIGNMENT SALE

300 HEAD Of Choice Registered HOLSTEINS

The largest sale of this breed ever held

West Salem, Wis. WEDNESDAY and THURSDAY . . **October 29-30**

SALE BEGINS AT 10 A. M. SHARP EACH DAY.

Representing the best blood lines — including Ormsbys, Homesteads, Colanthas, Segis, Korndyke, and all other popular strains

THE CONSIGNMENT—Represents the choice individuals from over 80 herds in Western Wisconsin. All animals consigned are selected by an appointed sale committee and only animals that are large, well marked, choicely bred and heavy producers or from heavy producing ancestry have been accepted. Prize winners at Wisconsin State Fair and the recent National Dairy Show included. Foundation herd material will be available in any number.

THE FEMALES—(270 head) range in age from 18 months to 8 years, and many of the cows have large A. R. records. Others are on test now and 100 head are heavy springers. Fifty just fresh.

THE BULLS—(30 head) ages from 8 months to 6 years, are splendid herd header material. Several have been prominent winners on show circuit this year, and all are out of high producing dams.

HEALTH OF ANIMALS—All animals tested by an accredited veterinarian just previous to sale, and individual health certificates furnished with each animal.

Don't Fail to Attend This — the Greatest of All Holstein-Friesian Cattle Sales

For catalogs or other information address

O. G. CLARK, Manager **West Salem, Wisconsin**

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.

---

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

RIVER MEADOW FARMS, Portlandville, N. Y.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale. If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Dousman, Wis.

A clean herd under state and federal supervision

Choice Dairy Cattle

FOR SALE—200 head of the very best Holstein and Guernsey cows, heifers, 4 to 8 weeks old calves at reasonable prices. Write the

WHITEWATER STOCK FARM
Whitewater :: Wisconsin

BARGAINS In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Ollie-Ormsby

Bull born Nov. 19, 1923. Ready for service. Sire—Sir Ollie Mooie Watson, 36-lb. son of Iowana Sir Ollie. Dam—24-lb. granddaughter of Pietertje Maid Ormsby now on year test. Bull is two-thirds dark, a good individual and reasonably priced. Write or visit us.

WALCOWIS FARMS Lake Geneva, Wis.

— PUREBRED —

HOLSTEIN HEIFERS

25 HEAD pure-bred heifers, 2 and 3 years old, bred to a 29-lb. bull. Due in November. Priced right for immediate sale.

RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y., Randolph, Wis.

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

SAUK COUNTY HOLSTEIN ASS'N.

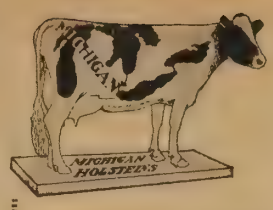
Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, pure-bred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.



Buy Michigan Holsteins



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several carloads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.

L. C. KETZLER, R. 8 Flint, Mich.

---

2 SERVICEABLE BULLS

One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $200 takes either bull. Herd under Federal supervision.

J. E. BURROWS Flint, Mich.

D. D. AITKEN, Flint, Mich.

Breeder of Holstein-Friesian Cattle

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

Sir Charlevoix Ormsby Finderne 377019

Whose dam holds Michigan state record with 1278.56 lbs. butter and is second highest cow in world for milk with 35,339.50 lbs. in 365 days. *Sons of his for sale from good 7-day and yearly record dams.*

J. B. JONES FARM, Romeo, Michigan

Livingston County Sales

C. T. A. SALE—80 HEAD above 300 lbs. fat. One of our leading herds will be dispersed—30 lb. cows, heifers, a 36 lb. bull, 2 consignment sales with high record cows. Our County is free from T. B. It has the world's greatest bull Ass'n. As many Holsteins as any county of its size in U. S. Come to Livingston County for Holsteins.

LIVINGSTON CO. HOLSTIEN-FRIESIAN ASS'N.
BURR J. HOOVER, Sec., HOWELL, MICH.

A 30-lb. Bull

At a Bargain Price

King Pontiac Segis Lad De Kol 3d is 2 years old and the sire of some very promising calves. He was second among 25 calves at the 1922 Michigan State Fair and this year he was a prize winner as a 2-yr.-old. His dam made 30 lbs. butter from 700 lbs. milk in 7 days and his sire is a son of Sadie Gerben Hengerveld De Kol, 40 lbs. butter, 782 lbs. milk in 7 days, 157 lbs. butter, 3465 lbs. milk in 30 days. Sold subject to 60-day retest guarantee. Write today.

BAYNEWOOD FARMS, Romeo, Michigan

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

Grahamholm Colantha Lad 297376

Senior Sire in the Newberry State Hospital Herd

HIS SIRE was first prize aged bull at the 1921 National Dairy Show.

HIS SISTER holds a World's Record as a senior 4-year-old. She produced 1,426.75 lbs. butter and 34,291.8 lbs. milk in 365 days.

ANOTHER SISTER has a record of 1,238 lbs. butter and 33,100 lbs. milk in a year and will soon finish another phenomenal record.

HIS DAM is a 35-lb. granddaughter of King Segis with a year record of 919.78 lbs. butter and 21,574.9 lbs. milk.

A FEW OF HIS BULL CALVES FOR SALE.

Send for our List of Bulls from Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.



FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD

Send for List

MARYLAND FARMS, Dudley E. Walters, Owner, GRAND RAPIDS, MICH.

Serradella Farm

OFFERS—Sons of ECO-SYLV KING WALKER he a son of Champion Echo Sylvia Pontiac from a 31.58 lb. jr. three yr. old.

From the females that enabled us to win 7th place in the Honor Lists in 1923-24.

We have an exceptional pair of twin bulls from our State Record two yr. old by the above bull. One is for sale. Reserving the other for our own use. Address SERRADELLA FARM,

A CLEAN HERD. OSCODA, MICH.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

Spring Valley Farms Dispersal !

OCTOBER 24th
Hillsdale Fair Grounds
HILLSDALE MICHIGAN

Send for Catalogue

70 HEAD OF HIGH QUALITY HOLSTEINS. Federal tested. 50 head bred to Sir Ormsby Wisconsin Banastine. Dam 34.7 lbs. butter 7 days. Sired by a son of Duchess Skylark Ormsby. 1,506.36 lbs. butter in year.

63 FEMALES, one 30.16-lb. cow and 4 of her daughters. A 26-lb. 3-year-old. 24-lb. 3-year-old and four of her daughters, and one son. This is a herd of real producers and show animals. Send for catalogue.

Auctioneer, J. E. Mack, Fort Atkinson, Wis.
Sale Manager, R. Austin Backus, Mexico, N. Y.

Owners—ELISHA BAILEY & SON, PITTSFORD, MICH.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

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COMFORT. ARCOLA sends its hot-water warmth through small pipes to a radiator in each room. No cold spots or hot spots.

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IDEAL BOILERS
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Home Owners
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My home has ___ rooms. Send me the book describing the IDEAL Boiler that will increase comfort and save money in a home of this size.

NAME_____

ADDRESS_____

TOWN, STATE_____

(My home has no ___ has a ___ basement)

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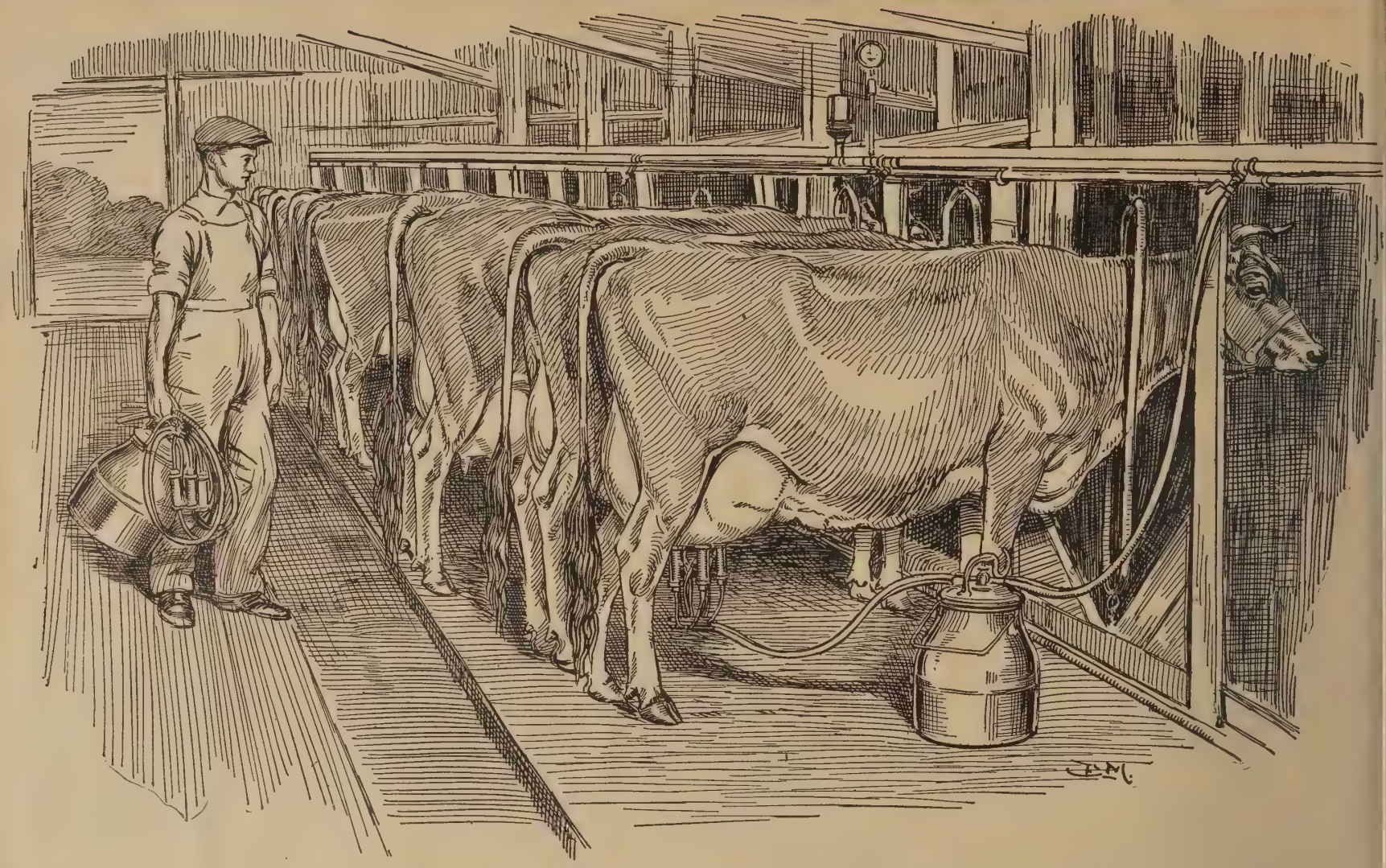
HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



"AND now the evening comes, and something of a time to rest and listen. The scudding clouds conceal the half and then reveal the whole of the moonlit beauty of the night."

Volume LXVIII, No. 15 Fort Atkinson, Wisconsin October 24, 1924



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HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., OCTOBER 24, 1924 Number 15

Churches Co-operate in Promoting Health

IN a recent milk-for-health campaign which was conducted in one of the southern states, the ministers of the churches co-operated in encouraging the use of milk for health. The church as an institution is coming more and more to realize the value of physical health in religion. Rev. Everett S. Smith of Kentucky preached one of the sermons in connection with this milk-for-health campaign and is in part as follows:

"And the second is like, namely this, Thou shalt love thy neighbor as thyself."—Mark 12:31.

We are commanded to love our neighbors as ourselves. From the way the most of us treat ourselves today, I wonder if our neighbors would be altogether pleased.

We no longer mutilate the body as do the heathen still, nor do we curry favor with God by bodily abuse as did the monks of old, yet the present tendency toward the opposite of asceticism is fraught with grave dangers. Our task is to find the happy medium between overindulgence and overabuse, properly relate our bodies to our other selves, and hold for the body that sacred regard which it was ordained to receive.

I want to mention here just a few of the many very unusual diseases with which we are afflicted in this day. Of course I do not refer to diseases (though unusual) which are evident to the medical world, but rather to afflictions which are not commonly regarded as diseases, but which, nevertheless, may be so treated in such a treatise as this.

First—Routine. Here is a modern disease. Many are afflicted. Mark Twain's diary gives us a hint: "Got up, washed, went to bed." Routine involves habit. Habit may be a pernicious disease. One of the secrets of contentment is the art of making routine agreeable. We must eat and sleep, wash and sweep, get the children to school, open the mail, feed the bird or the dog, put out the cat, lock the doors—daily inevitables. Since there is no escape from these things that constitute the major part of our daily existence, why can we not arrange them so as to make them pleasant? We can, by changing ourselves. Routine taxes our physical endurance unduly. We sacrifice the satisfaction of regular physical requirements to routine. False stimulants are sought and our health impaired. We fret—we grumble—we have a headache. The cause is routine—habit—groove—rut. If we are caged, it does no good to flutter against the bars; better hop up on the perch and sing awhile and drink a glass of milk. That's what a song is for, to lighten labor. The washboard or egg beater will furnish a splendid accompaniment to a song like—"Pack up your troubles in your old kit-bag, And smile, smile, smile". That's what a glass of milk is for, to strengthen the body and furnish wholesome brain food to prevent fretting and worry. It is so much better than to excite the nerves with a stimulant and make drunk the brain to the extent that we imagine our body has been properly fed.

Second—Discouragement. Here is another modern disease. When one is discouraged, he is sick, he should take something. When we analyze discouragement we find it is nothing more or less than being sorry for one's self. Wallowing self-pity is a pitiable situation. I wonder if the physical self is in any way responsible for this condition.

Discouragement usually takes place when things go against us. It is often caused by expecting too much or what we have no right to expect. Again, it may be caused by perverted habit. We get into the way of looking for knocks and shocks and out of the way of looking for the very elements that will prevent discouragement. When our muscles are strong and elastic, our spine straight, our chest expanded, and our blood rich and red—gloom will take wings and fly away. "Laugh and grow fat" is a familiar expression. Let's reverse it —"Grow fat and laugh". Why does a fat person always seem to be jolly? There must be a reason for this happy disposition and about nine times out of ten, it is a healthy body. When we have protein for the muscles and other tissues, fat and sugar for body fuel, minerals for bones, and vitamins essential to growth and health, all in proper and proportionate quantity, I imagine we can wage a more successful war on the army of "Glooms", form an alliance with "Joys", and laugh at many stalking pestilences that now affright us. Then, too, I am confident that we could make quick riddance of the nasty disposition germs that now infect us. I am informed that milk is unique in containing all of the above mentioned body foods.

Third—Crustaceanitis. Pardon me, I coined this term. Some professor, somewhere, said that human beings may be divided into two classes, vertebrates and crustaceans. Crustaceans are animals that have an outer shell as a means of defense against their neighbors who want to eat them. They are helpless creatures that lie along a river bed and waddle about in search of a precarious livelihood. Vertebrates, however, have no shell of protection and carry their bony structure concealed within the flesh. They must fight or run if they be spared. Dr. Frank Crane says: "Life is pretty much a war. To exist is to struggle. And when you quit the fight, other organisms speedily devour you."

By "Crustaceanitis" I mean that attempt on the part of parents, inspired by a whimsical, sentimental attitude, to make helpless crustaceans of their children by pampering them and discouraging that vigorous exercise and active participation in athletics which is a great secret of good health. Regular human beings —vertebrates—want to be strong. They don't want to be "Mussels"; they want muscles. I quote from Dr. Crane again—"God never made a man in the likeness of an oyster, a crab, or clam. His life happiness and the salvation of his immortal soul do not depend on surrounding him with conventions, herding him into institutions, or looking him up in retreats. His best defense is his vitality, His safety lies in his punch. His life is better conserved by health than by pills. The good people of this earth are not those who are afraid to do wrong, but those who dare to do right."

It requires a good, clean, strong, healthy body to substantiate the will in daring to do right. All too frequently have we excused our mistakes on the flimsy basis of "The spirit is willing but the flesh is weak". The Vertebrate Paul said to the Vertebrate Timothy, "Thou therefore endure hardness as a good soldier of Christ". We sing "Onward Christian Soldiers", but how often do we pause to consider the metaphor of a Christian soldier? What was it that prevented millions of our American boys from being admitted to our army in the recent World War? Physical unfitness! Thousands volunteered, thousands were drafted that were rejected. Malnutrition, crustaceanitis, physical impurity, and scores of other preventable conditions were responsible for this rejection. I personally witnessed the examination of numbers of men in different camps, and the variety of physical defects due to preventable diseases was appalling. When shall we come to a realization and appreciation of "the house we live in"? Secretary of State Hughes in a recent welcome address in Washington City, said, "Diplomacy is the art of distributing the milk of human kindness." I wonder if we cannot twist this beautiful

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TYPICAL WESTERN OREGON SCENE—READY TO UNHITCH AT NIGHT

Producing Limestone in Iowa

FIVE years ago not many men in Jackson County, Iowa, thought in terms of dollars and cents concerning the great quantities of limestone to be found there. It is true that a few men at that time were giving limestone a trial with sweet clover and alfalfa. Even today a few men scoff at the idea of hauling "rock" on to the land when it is already scattered all over the county.

It has taken well planned, hard hitting, thorough demonstration to change the attitude of a large number of farmers favorably towards this potentially valuable resource. A series of demonstrations under the direction of the county farm bureau during the past three years has made rapid progress toward a large use of limestone. In fact, if one were to measure the results of this demonstration work in terms of the number of samples of soil and limestone being tested each month by the county agent, one would know that many farmers are thinking of limestone in terms of what it will mean to their pocket books.

Jackson County is surrounded by, rather than served by, railroads. For this reason the production and distribution of limestone has become a greater problem than that of demonstrating the value of it. Many farms are several miles from a railroad and must go over hilly roads to reach railroad stations. On the other hand, each of the 18 townships has several to many deposits of high grade limestone easily quarried. The small to medium sized portable pulverizer has, therefore, gained admission to the county and is rapidly becoming popular, especially among farmers who otherwise would have a long haul. During the spring of 1924, four such pulverizers started operation in the county. According to later inquiry and interest, there will be several more such machines in operation during the coming year.

None of these machines are on the company or co-operative plan. One of them is owned by three individuals in a community and operates largely for their own use although the demand for pulverizing for others has been so insistent that the owners are yielding and are doing some outside work. In another community the pulverizer is owned by one man and the tractor by a near neighbor. The other two machines are owned by individuals and operated almost entirely on a commercial basis.

Production costs are found to range from $1.75 to $2.25 per ton when everything is charged against the product. Larger commercial concerns are at present able to deliver screenings and some deliver pulverized limestone to railroad stations for less than this price. Those near railroad stations, as a rule, are buying from the larger companies but those who have a haul of 3 miles or more and who are near good limestone are becoming interested in the "pulverizing at home" practice.



THIS PULVERIZER PRODUCED NEARLY 800 TONS OF LIMESTONE LAST SPRING. IT WAS OPERATED BY J. H. SCHUSTER, IOWA

The pulverizers used vary in capacity from 3 to 5 tons per hour. A very high grade of limestone is being made by these machines. The 10—20 to 15—30 size tractors are giving good satisfaction.

Farmers are finding an added advantage where the limestone is pulverized either on their own farms or in the immediate community in that they can haul to better advantage. Most farmers are planning to get limestone to their farms in the fall season rather than depend on hauling in the spring when roads are soft.

About three thousand tons of high grade limestone have been produced by these machines during the past year. The problem of production and distribution is greater now than the problem of demonstrating the value of limestone.

Milwaukee Milk Producers' Association

BEFORE the Milwaukee Milk Producers' Association was organized, the producers supplying Milwaukee with milk received less for the whole milk delivered than the creameries one hundred miles away were paying their patrons for fat alone.

To produce fluid milk entails extra expense and the loss of skimmilk for feeding the young stock of the farm. It was but natural that producers selling milk under such circumstances would become very much dissatisfied with their market and when people become dissatisfied, and for a reason, they invariably take some action to improve their conditions. This is just what the producers did in the territory that supplied Milwaukee with milk. They selected as their leader the present secretary of their organization, Mr. G. R. Rice. Before any steps were taken to organize the producers, Mr. Rice held meetings in various sections of the territory for a period of five to six weeks and secured over 500 signers expressing their willingness to join an organization.

After the purpose and object of the organization was set forth to the producers, a meeting was called and the Milwaukee Milk Producers' Association was organized. The officers elected were E. S. Robbins, president; Charles Dineen, vice-president; G. R. Rice, secretary-treasurer. The milk distributors of Milwaukee viewed this movement with alarm, for they were fearful it would prove injurious to their business and disrupt their organizations, which is the case in most instances when people counsel with fear instead of courage.

The farmers also viewed the milk distributors with suspicion, and unfortunately this still exisits in the minds of some members of the Milwaukee Milk Producers' Association. At the bottom of this suspicion on both sides was ignorance and a fear that weakens instead of strengthens.

We doubt whether the milk distributors or producers fully appreciate that they are simply parts of a great industry and both are essential to its success. One cannot exist without the other and what will harm one will harm the other. But, as Mr. Rice has said, "We had to learn and to know each other. As we became acquainted we found there was no *harm* on either side as we feared there would be."

Certain practices among the distributors were detrimental to the producers and did not give them a square deal. The distributors see this now and have corrected it. In the first place, it is not fair to a producer of fluid milk to pay him no more than its butter value and neither was it fair to shut off producers when there was too much fluid milk for the market to absorb. In order to supply the necessary quantity of fluid milk, there will be seasons of surplus, and this cannot be prevented. But this surplus can be regulated, and through organization it has been regulated. Surplus, however, must be taken care of and the distributors are doing this now. This was one of the outstanding reasons for organizing the Milwaukee Milk Producers' Association. For a short time the association took care of its own surplus, but found this more expensive than their present plan of permitting the distributors to handle the surplus.

The agreement which the producers have with the dealers to take care of "homeless" milk is very satisfactory. Definite rules have been adopted to pay for what is termed "manufactured milk", meaning surplus milk or that which must be turned into some product like butter, cheese, or condensed milk. The value of surplus milk is calculated upon the price of 92-score butter in Chicago and the market value of skimmilk. On page 438 we publish the plan adopted by the Milwaukee milk dealers and the Milwaukee Milk Producers' Association to arrive at the price of surplus milk.

The arriving at the price of fluid milk is done at a price conference composed of both the dealers and the producers. It becomes a process of bargaining, taking into consideration the price of good butter and cheese, the value of skimmilk for feeding live stock, and prospective supply and demand. In other words, the committee in arriving at a price for fluid milk takes into consideration market conditions. The plan is working very satisfactorily, both to the producers and the dealers. Through these monthly contacts both sides have come to a definite conclusion that each can help the other and that each is a part of a great industry and that what will hurt one will injure the other.

Through organization, the producers are able to supply the distributors with all the fluid milk they require at a uniform price and this is an advantage to them, for there is a wide variation in the demands for fluid milk. There is also a wide variation in the production of milk, but where a large number are banded together to take care of the milk supply of a city, these variations do not become as troublesome or as expensive as when each farmer sold his milk separately. Some weeks ago we published the new plan for obtaining uniform production. In brief it is as follows:

"The average monthly production of each shipper during August, September, October, and November, 1924, shall be considered their base quantity.

"During the first six months of 1925 all producers will receive the regular 'Average price' for any amount up to one and one-half their base quantity. For all milk above this amount they will receive the 'Manufactured price'. For example: If a shipper has a base quantity of 10,000 pounds and ships 20,000 pounds, he would receive the 'Average price' for 15,000 pounds and the 'Manufactured price' for 5,000 pounds."

The prices received for fluid milk for the past three years, since the plan has been in operation, have been very satisfactory. Of course, the farmers desire more for their milk, but every thinking producer who knows market conditions and has given the matter any serious consideration knows that they have received full market price for their milk and there are few, if any, associations operated under similar conditions that have been able to get as much for milk.

One of the most discouraging and, we would say, unfortunate things about the work of the Milwaukee Milk Producers' Association is coming to know that only about 60% of the producers who supply Milwaukee with fluid milk support this organization. Some of them do not fully appreciate the good work it has done and is doing. It has been calculated by men who know that the average price paid for milk has been at least 15 cents a hundred higher since the association was formed than it would have been without this organization. This has meant an income of $275,000 a year; the cost to secure this income has been $10,000.

It is estimated that the price of market milk so far this year has been about forty cents a hundred higher than it would have been without this co-operative marketing association. There are men who know this and will admit it, but when asked to contribute their 3 cents per cwt. for carrying on the work, they have replied that it is unnecessary for them to spend any money for the support of the organization. This is downright dishonesty. We can forgive those who do not comprehend what the association has done and is doing, but we can't forgive those who know the association is doing good work and who receive its benefits without bearing any of the expense. This very thought and attitude is not only contemptible, but is what frequently disrupts farm organizations.

A few men are leaving the Milwaukee Milk Producers' Association to produce special milk. These men are

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SAY IT WITH DOLLARS

D. D. OFFRINGA, IOWA



MR. FRANK A. CHESTER AND HIS THREE SONS: RALPH, ELMER, AND NATHAN

NET incomes of from $4,500 to $6,900 have been rather scarce these last four years and any farmer that can show income tax reports to that effect, ought to have a chance to tell others how he did it. That's why I was interested in finding out the why and the how of the success of F. A. Chester, prominent dairyman, hog raiser, and business man of Iowa. The businessman, in this instance, means a real dirt farmer who puts business principles into his farm operations and makes it pay.

My opportunity to learn of his methods came when I visited him some time ago to assist the new tester of the Bremer County Cow Testing Association in getting properly started. Mr. Chester is the president of this association. On this particular day the last samples to finish the second year's work of the association were taken.

During 1923 the Chester herd was first in the state of Iowa, with an average production of 405 lbs. butterfat out of 10,640 lbs. milk. The finish of the second year's work showed an average production of 458.39 lbs. butterfat out of 11,961 lbs. milk, which was higher than any previous record ever made by any herd in any cow testing association in Iowa. The best previous record of any herd of 10 cows made in Iowa was 443 lbs. butterfat. Making a state record is in itself quite an achievement but when this is made under conditions that can be followed by any practical farmer, it is all the more remarkable.

One of the outstanding points about the record was the fact that four of the 10 cows that completed at least nine months of testing were grade Brown Swiss. One of them, "Ulga", produced 639.8 lbs. fat out of 15,050 lbs. milk. This is the highest record made by any cow in the Bremer County Cow Testing Association, and also gives her first place for two years, as for the two years combined she produced 1,154 lbs. fat out of 27,612 lbs. milk. Her three half sisters produced an average of 48.31 lbs. butterfat. The four cows are all daughters of a pure-bred Brown Swiss sire that was purchased by Mr. Chester when he first decided to become a dairyman.

Back of all this success with the dairy business is a very interesting story. Fifteen years ago, Mr. Chester was a business man in Illinois. He thought he saw greater opportunities in farming as this would give him a healthier life and his four boys and two girls the best place in the world to be reared. It was not primarily for better financial opportunities, as he was a very successful business man. He decided to move to Iowa where he bought a 200-acre farm.

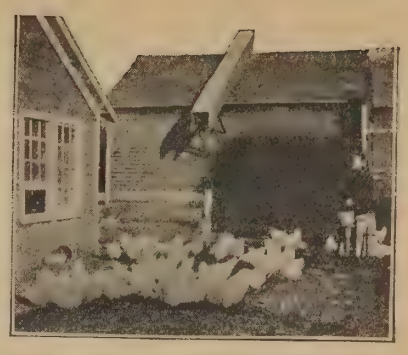
Following the custom of the community, he started milking cows, using the type of cows that were popular milkers. His business experience told him at once that he could not afford to keep any boarders. Not being able to join any cow testing association, he decided to do the testing himself. The results certainly justified the trouble of doing the work.

After looking over the records of his 14 cows, he found that they produced an average of 150 lbs. butterfat. This was in 1911. He kept on testing his cows, eliminating the poorest and improving his feeding methods. In 1912 he had one cow that, through careful and regular feeding and management, produced 300 lbs. fat. If it was possible to have one such cow, it was possible to have an entire herd produce an average of 300 lbs. fat. Always keeping posted through a number of the best farm papers, he decided that he would have to start with a pure-bred sire of a dairy breed. He picked on the breed that was in his judgment the nearest a beef breed and still was classified as a dairy breed. The pure-bred Brown Swiss sire which was used on his herd of mixed cows was his first step in herd improvement by better breeding. Considering the remarkable records made by the only four remaining daughters of that sire that are still in the Chester herd, it is but another case amongst thousands of a good sire that was sent to the butcher before his worth was detected.

However, Mr. Chester decided to go just one step further than most of his neighbors and bought a pure-bred Holstein cow and a pure-bred Holstein sire. Always taking every precaution to do everything in a practical way, he decided to "grow" rather than "go" in the dairy business. From a rather slow start, he has developed a herd of pure-bred Holstein-Friesian cows that rank amongst the best in Iowa. His way of doing business is worth studying and following, because it involves a few risks and guarantees sure profits. And profits are the items that have counted in recent years.

"Mr. Chester, what do you really consider the outstanding reason for your success as a dairyman?" I asked him. "Well, there really are a number of reasons," he said, "but I felt that it was my job to get acquainted with every one of my cows. To do this I did the testing myself but found it hard to keep it up permanently. When I joined the cow testing association later on, I found that these associations are nearly as much a test for the man in charge of the herd as it is for the cows themselves. It sure showed me where we stood regarding the feed, care, and management of our herd. I was always fairly well pleased with the kind of feed I was feeding my cows. The roughage consisted of silage and a clover-timothy mixture. The grain ration consisted of 200 lbs. corn and cob meal, 200 lbs. ground oats, 100 lbs. bran, 100 lbs. oil meal, and 100 lbs. cottonseed meal. Since belonging to a cow testing association, I have come to the conclusion that it is much better to feed alfalfa hay and that's why I bought that carload of limestone. It is going to be used as a means of sweetening the soil and I am going to grow my own protein in the form of alfalfa.

"I believe, further, that it is a mighty good thing to be just as prompt about dairy work as possible. We are just as regular as we can be both night and morning. I have always believed in giving the cows heated water, rather than ice water during the winter time. We try to make it comfortable for the cows without ever getting away from the practical side of the question. You may agree with me or not, but I object to three times per day milking from that standpoint alone. Our records might have been bigger but I doubt if the profits would have been bigger. And it is profits rather than records that we are after."



MRS. F. A. CHESTER AND HER FLOCK OF WHITE ROCKS THAT BROUGHT HER $532.50 LAST YEAR

Talking about profits one would think that the dairy business was quite the thing on the Chester farm. "You consider yourself primarily a dairyman, I take it, Mr. Chester." "Well," he said, "our hogs have brought us big money even these last few years. I would consider them at least as important as dairy cows on my farm but they make a combination that is hard to beat. I use a self feeder and the hogs eat all the shelled corn they want. I feed them a mixture of 100 lbs. tankage, 100 lbs. acid phosphate, 50 lbs. limerock, 50 lbs. wood ashes, and 15 lbs. salt, both as a general feed and mineral combined. Last year our hogs brought us $4,571.96 gross, while the total net income from the farm amounted to $4,518.65."

While we were discussing dairy cows and hogs, the subject of the chickens was brought up. "You better ask Mrs. Chester concerning the chickens," he said, "as she has entire charge of that and I cannot tell you much about them, except that they brought us a gross profit of $532.50 last year."

"The only thing I can report," said Mrs. Chester, "is that my chickens get sour milk the year around; they get oats in the morning and they have a dry mash consisting of ground oats, ground corn, bran, tankage, flour middlings, and salt in front of them all the time. I gather the eggs promptly every day and cull the poor chickens during the summer."

In addition to having met with a large measure of success as concerns the live stock industry, Mr. Chester has shown practical ideas in many ways about the farmstead. One is impressed with the large concrete yard which was built with the specific purpose of retaining all the value of the barnyard manure. The five-foot high concrete wall which surrounds the yard is not only built for permanency but serves as a remarkable windbreak. It is an original idea of Mr. Chester and he is convinced

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FOUR BROWN SWISS GRADES

These cows are daughters of the same sire and part of the herd of F. A. Chester & Sons of Iowa. In the Bremer County Cow Testing Association last year they averaged 522 lbs. fat—Ulga made 639.8 lbs.; Brindle, 531.8 lbs.; Spot, 490.2 lbs.; and Blackey, 427.3 lbs. In the background is shown the 5-ft. concrete barnyard fence and windbreak.



THE CHESTER HOME

Everything is just as practical for Mrs. Chester as the arrangement of the barn is convenient for the men folks.



HERE ARE EIGHT OF THE TEN COWS IN THE CHESTER HERD THAT COMPLETED AT LEAST NINE MONTHS OF TESTING

Their average production of butterfat is 502.4 lbs. in a year.



THE CHESTER BARN

A most conveniently arranged home for 22 cows in two rows of stanchions, with room left for two box stalls and three grain bins.

NEW YORK EXPERIMENT STATION JERSEYS

Two Versus Three Milkings

A. C. DAHLBERG, NEW YORK

IF you had a herd of 26 registered Jersey cows that were milked and fed twice daily and they produced an average of 375 lbs. fat in eleven months and a calf in thirteen months, how much would these cows produce if they were milked and fed three times per day and placed on Register of Merit test for class AA? In class AA the cows are milked for twelve months and must give birth to a living calf in less than 16 months from the previous calving. This question was asked of half a dozen men who were in charge of Jersey and Guernsey cattle at the National Dairy Show in 1922.

The variations in the replies were startling. The most conservative man was a Jersey breeder who stated that the production of these cattle was too low to warrant milking three times per day. He believed that an increase in production would result from the extra month of milking and a longer dry period but that this increase would not exceed 50 lbs. fat per year making a total production of 425 lbs. fat per year. The most optimistic breeder had Guernsey cattle and he was positive that under his system of feeding and management the herd in question could be made to produce in excess of 600 lbs. fat per year.

A number of experiments have been finished to give information on this point but most of them have not covered sufficient time or enough animals to furnish conclusive evidence. It has, however, usually been recommended that Jersey and Guernsey cows giving 30—35 lbs. of milk per day should be milked and fed three times and that Holstein and Ayrshire cows giving 40 lbs. per day should be milked and fed three times per day. Mature Jerseys in the Station herd give 30 to 40 lbs. per day when fresh and should, accordingly, be milked three times per day.

On November 1, 1922, the Station herd was placed upon an experiment to determine the increase in milk and butter production that might be expected as a result of milking and feeding such cows three times per day. Although the experiment has been in progress for 16 months, this report must be given only as a progress report because the test is not yet complete. The time has been too short and the animals used too few to warrant final conclusions.

For the purpose of this experiment all the cows in the barn were divided into two groups. Mature cows were selected upon the basis of type and past production records. All heifers were and are being selected upon the basis of type and their record for 10 months as junior two-year-olds. In this way the two groups are maintained as nearly uniform as possible. One group is fed and milked twice daily. This group is milked ten months per lactation year and is bred to freshen every 12 months. They are milked regularly at 11½- and 13½-hour intervals. This group is handled in a way comparable with that of the average dairy cow. The second group is milked and fed three times per day. The cows in this group are milked for 12 months per lactation year and bred to freshen every fifteen months. They are milked regularly at nine-, seven-, and eight-hour intervals. This group is handled in a way comparable with that of the pure-bred breeder making yearly test records. After an animal is placed in one group or the other she remains there for the rest of her life or until she has reached maturity. In this way the cumulative effect of the two systems of handling will be obtained.

Two inaccuracies are at once evident in this experiment. The production of a mature cow cannot be accurately predicted by her type and record as a junior two-year-old. No method more accurate is available and the best must be used in spite of its failure to give absolute accuracy. The second possible error will be encountered in comparing the records due to the fact that the length of lactation and rest periods vary. Since this variation is usually encountered it was introduced to show the effect of this treatment as well as the two versus three milkings and feedings.



RUFUS OXFORD CAREY B B

This cow produced an average of 344 lbs. fat per year on two milkings. When six years old she gave 489 lbs. on three milkings per day and is now making a record in excess of 600 lbs. fat.

Immediate Effect of Three Milkings and Feedings

The immediate effect of three milkings and feedings upon the milk and butterfat production was evident as soon as the experiment started. The cattle ate their first grain feed at night without relish and much of it was removed from the mangers on the following morning. The consumption of hay was also very slight. This failure to consume their feed probably indicated two conditions. The cattle were receiving plenty of food nutrients in two feeds per day, and feeding standards confirm this statement. The second condition indicated by this failure to consume their feed was a reiteration of the old statement that the dairy cow is a creature of habit. Experience with the Station herd has demonstrated that if the third feed of grain had been divided between and added to the two regular grain feeds the cattle would have eaten it with relish. After one to four weeks the cattle had become accustomed to the extra feedings at night and they expected it.

How hard those cows milked the first time they were milked at night! For fully a minute one cow failed to give any milk and all milked very slowly. It should be stated that all cows were milked by machine and have been so milked since 1907. The cows adjusted themselves slower to the extra milking than they did to the extra feeding. The slowness and hardness of milking rather than the amount of milk obtained is the basis of this conclusion.

Comparisons of milk and butterfat production given in Tables 1 and 2 include all cows in the barn not in the first or last month of their lactation period. The figures include the month before and the month after three feedings and milkings began. The cows fed three times daily received but a small quantity of grain in excess of those fed twice daily for the reason that they ate so little of the extra feed given to them. Table 1 gives the records of the cows milked three times per day and Table 2 which contains the records of the cows milked twice daily serves as a check upon the results given in Table 1. The yield of butterfat per cow per day for each group is about one pound, which is a fairly good average. Comparing the month of November with October, the yield of milk per cow per day for those cows milked three times per day increased 1.6 lbs. on three milkings and 1.7 for the cows milked twice daily. The fat yield of the cows milked thrice daily decreased 0.1 lb. per day and the cows milked twice daily also lost 0.1 lb. per day. It accidentally happened that a few of the cows showed variations in the milk test that were not continued throughout the lactation period. It is evident that three milkings and feedings per day had no immediate effect upon the milk flow of the Experiment Station Jersey Herd.

Table 1—Monthly Record of Cows Milked Thrice Daily

Cow No.	October, 1922 Last month of two milkings Milk Lbs.	Fat Lbs.	November, 1922 First month of three milkings Milk Lbs.	Fat Lbs.
2	697	36.2	667	33.7
5	522	29.7	430	24.1
6	328	17.3	303	16.0
9	542	27.6	480	25.2
10	664	41.8	605	35.4
14	497	26.6	327	15.7
22	977	47.4	920	58.3
24	1060	53.4	995	47.5
26	455	28.6	393	26.3
Ave. daily yield of 9 cows	20.5	1.1	18.9	1.0
Daily decrease per cow			1.6	.1

Table 2—Monthly Record of Cows Milked Twice Daily

Cow No.	October, 1922 Milk Lbs.	Fat Lbs.	November, 1922 Milk Lbs.	Fat Lbs.
7	776	35.9	663	29.1
11	525	27.8	436	25.9
12	447	27.5	411	28.6
16	492	29.0	430	24.1
21	472	24.8	423	25.1
23	831	44.0	755	33.2
Ave. daily yield of 6 cows	10.0	1.0	17.3	.9
Daily decrease per cow			1.7	.1

Accumulative Effect of Three Milkings and Feedings

It is more difficult to obtain results over a long period of time that are comparable than it is to obtain such results in periods of one week or a month. The data given in Tables III and IV do not necessarily contain comparable figures but rather the butterfat records of all the cows in the herd that have finished complete records on two and three milkings per day since November, 1922, when this experiment began. It is obvious that for numerous reasons certain production records could not be included. Butterfat yields in the tables might be considered as the results which a farmer might obtain if he had owned this herd of cattle and began milking and feeding them three times daily. The results apply only to the herd used for the years recorded in the table and they cannot be used for generalized statements because the data are insufficient. At some future time more exact results may be expected.

The tables give the number of lactation periods finished prior to November 1, 1922, on two milkings per day as well as the average yearly butterfat production and the age of the cow on that date. The last lactation period prior to this date is

(Continued on page 465)



EXPERIMENT FAIRY QUEEN

She produced 836 lbs. fat as a yearling on two milkings per day. As a senior two-year-old she was milked three times daily and produced 534 lbs. fat.

Alfalfa For Indiana Farms

There is no longer any doubt about the adaptation of alfalfa to Indiana conditions. The following are some of the principal points to be studied and observed in order to make a success of alfalfa culture:

Alfalfa is a deep-rooted plant of extensive feeding habits and for its best development requires a deep, mellow, and well drained soil. Good corn soils are good alfalfa soils, but almost any type of soil may be made to produce good alfalfa, provided it is well drained, abundantly supplied with decomposable organic matter, free of acidity, and well supplied with the mineral elements of plant food in available forms. For the first trial of alfalfa it is well to use the best field on the farm.

Good drainage is essential. Alfalfa roots will not develop in a waterlogged soil. If the soil is not naturally well drained, it should be tiled to a depth of at least three feet, and in heavy soils the lines of tile should be laid fairly close together. Soils that are subject to flooding for more than a couple of days at a time are not good for alfalfa.

Alfalfa will not thrive in an acid soil. It is more sensitive to acidity than any other of the common legumes. Where red clover fails alfalfa cannot be expected to thrive. If the soil is producing good clover it will usually grow alfalfa without liming. Where there is doubt, the soil should be tested for acidity, and if it is sour an application of some form of lime must be made. Ground limestone will usually be the most economical and most satisfactory form of lime to use. In most cases an application of two tons per acre, harrowed into the plowed soil, will be sufficient for several years. Where marl is available this is an excellent form of lime to use.

Organic Matter

A liberal supply of organic matter in the soil is especially necessary for several reasons. It loosens heavy soils, promotes aeration, prevents baking in dry weather, lessens injury from heaving, aids the water-retaining capacity of light soils, and supplies necessary food for bacteria. If sufficient stable manure is not available, a green crop, such as cowpeas, may be grown and plowed under in preparation for alfalfa.

When once properly inoculated with its particular nitrogen-gathering bacteria, alfalfa will get its nitrogen from the air and even enrich the soil in this element. For the mineral elements of plant food, it must depend upon the supplies in the soil like all other plants. Stable manure is especially valuable in starting an alfalfa field. It not only supplies available plant food, but the organic matter it contains improves the physical condition of the soil and promotes the development of the nitrogen-gathering bacteria.

Phosphoric acid and potash may be profitably supplied in the form of commercial fertilizer. On ordinary soils, most of which are poor in phosphoric acid and may need available potash, an initial application of 400 to 500 pounds per acre of a fertilizer containing about 10 to 12 per cent of phosphoric acid and about half as much potash should be made.

Three cuttings of alfalfa in a season, aggregating five tons of hay per acre, will remove 55 pounds of phosphoric acid and 200 pounds of potash from the soil. In most cases it will pay to apply, either in manure or fertilizer, nearly as much phosphoric acid as is removed in the hay. On loams and the heavier soils, which are well supplied with potash, only small amounts need to be returned, but on the lighter soils larger amounts must be returned in either manure or fertilizer.

Inoculation

Where alfalfa is sown for the first time, the soil must usually be inoculated with the nitrogen-gathering bacteria peculiar to this plant. When the seed is to be drilled or harrowed in, the simplest and surest way to inoculate is to get some soil from an old alfalfa field or a sweet clover patch and mix three or four quarts of this with each bushel of alfalfa seed just before seeding. The seed should be moistened with a weak glue or sugar solution to make more soil adhere to each seed.

When seeding on wheat, inoculation may be effected by broadcasting 200 or 300 pounds per acre of inoculated soil after growth is well started. This should be done just before or during a rain. When inoculated soil is not available, commercial cultures can be secured from seedsmen or direct from bacteriological laboratories where they are produced. Directions for application accompany these cultures.

Seeding

Alfalfa may be seeded as clover is sown on winter wheat or rye, using 10 or 12 pounds of seed per acre. It is a good plan to sow half the seed on bare ground early in February and half in April after danger of freezing is past. It may also be sown with a drill in April, using about 8 pounds of seed and going crosswise of the wheat drills. For seeding alone, the most generally satisfactory time is early August on ground specially prepared after the removal of a June or early July harvested crop.

Grimm and Cossack are the most satisfactory varieties of alfalfa for Indiana on account of their ability to withstand winter injury. Their branching root systems make them especially resistant to injury from heaving. Pure, certified seed should be secured.

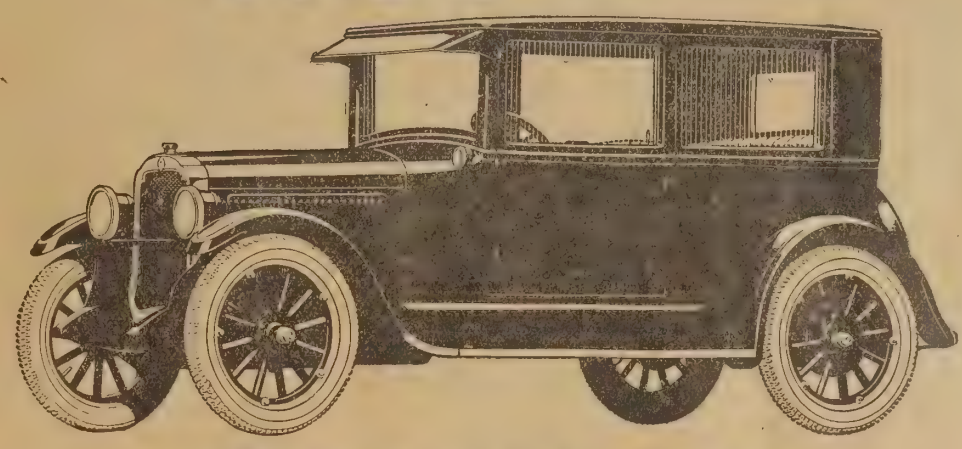
August seedings should usually not be cut, but should be left to die down for winter protection. Earlier seedings may need to be clipped once or twice during the season, according to the amount of trouble with weeds.—Purdue College of Agriculture.

"It is never too late to give up our prejudices. No way of thinking or doing, however ancient, can be trusted without proof."—THOREAU.

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Plan of Buying Milk for the Milwaukee Market

Adopted by the Milwaukee Milk Dealers and the Milwaukee Milk Producers' Association

1. Two classes shall be established in the Milwaukee Milk Market known as "Fluid Milk" and "Manufactured Milk". "Fluid Milk" is that which is sold in its natural state. Milk used for any other purpose whatsoever, shall be considered "Manufactured Milk".

2. The price of "Fluid Milk" shall be determined each month at a conference of the dealers and the agents of the Producers' Association.

3. The price of "Manufactured Milk" shall be determined by multiplying the butterfat test (as shown in paragraph 4) by the average Chicago quotation on nienty-two score butter (as reported by the U. S. Department of Agriculture) plus twenty per cent. Deduct the cost of manufacturing and selling (5c per pound butterfat.) To this is added the average value of the skimmilk and cottage cheese (as shown in paragraph 5.)

4. The following butterfat tests shall be used in determining the price of "Manufactured Milk".

January	3.55%
February	3.55%
March	3.50%
April	3.50%
May	3.40%
June	3.40%
July	3 50%
August	3.50%
September	3 55%
October	3.60%
November	3.60%
December	3.60%

5. Value of 100 lbs. skimmilk for manufacture into skimmilk powder.

Take the average quotation on high and low unknown brands (Bbls.) each day (as reported by the Producers Price Current, N. Y.) and average these for the month. Deduct the cost of manufacturing and selling (7c per pound) and multiply the balance by the yield per 100 lbs. skim (8 pounds).

Sweetened Condensed Skimmilk. Take the avergae quotation on high and low unknown brands (Bbls.) (as reported by the Producers Price Current N. Y.) and average these for the month. Deduct the cost of manufacturing and selling (two cents per pound) and the value of the sugar used 43-100 lb. at the average quotation and multiply the balance by the yield 100 lbs. skim (28.0 lbs.),

Cottage Cheese. Select five large jobbers of cottage cheese (to be named later). Take the average of each day of their high and low quotations (on good cheese in large irregular shipments) and average it for the month. Deduct the cost of manufacturing and selling (two cents per pound) and multiply the balance by the yield per 100 lbs. skim (13 pounds).

Average the value of skim for the three products and take eighty-five per cent of this as the value of skim in 100 lbs. of milk.

6. Each dealer shall determine the average price to be paid to his shippers by figuring what percentage of his total receipts was sold as "Fluid Milk" and what percentage was manufactured. He will then multiply the percentage of "Fluid Milk" by the price of "Fluid Milk" and the percentage of "Manufactured Milk" by the price of "Manufactured Milk". Adding these two figures together and dividing by one hundred will give the average price. The dealer shall then deduct one cent per hundred pounds which will be the farmers' contribution for advertising. This money shall be paid to the Wisconsin Dairy Council for advertising milk in the Milwaukee and adjacent markets. The dealers will contribute also the same amount to this advertising fund.

7. The dealers shall be permitted to take on shippers at the straight "Manufactured Price" using the shippers' actual test instead of the average test (as shown in paragraph 4) if they do not wish to put more shippers in the "Average Price" list. The name of such shippers shall be reported to the Producers' Association immediately when they start or stop or are transferred into the "Average Price" class. The amount of such milk shall be deducted from the total receipts before figuring the average price as stated in paragraph 6, and from the amount manufactured, as shown in paragraph 8.

8. Each dealer shall mail a report to the State Division of Markets not later than the 15th of the month, giving the following information concerning the previous month:

Total amount of milk purchased during the month.

Amount and percentage sold as "Fluid Milk".

Amount and percentage sold as "Manufactured".

Amount used in manufacture of each product.

Amount of each product manufactured.

Average price paid to producers.

Amount bought at manufactured price.

Amount of emergency milk purchased.

9. The director of the State Division of Markets and his assistants shall have free access to the dealers' books and records any time said director may choose to check the accuracy of the reports.

10. The figures used in manufacturing costs, yields, etc., as shown in paragraphs three and five may be changed when conditions warrant.

11. The dealers individually and collectively agree to accept so far as is possible, all milk of good quality offered from sources which are logically in the Milwaukee district.

12. All milk purchased directly from farmers shall be considered when determining the percentages of "Fluid Milk" and "Manufactured Milk". However, milk received at country plants may or may not be included at the option of each dealer, in the pounds of milk on which percentage is to be figured. Milk purchased from creameries, cheese factories, condenseries, or other buyers of milk, to protect the dealer against shortage of supply, shall be known as "Emergency Milk", and shall not be included in the pounds of milk in which percentage is to be figured, neither shall this "Emergency Milk" be deducted from the total pounds actually sold as "Fluid Milk". In the case of "Emergency Milk" between two distributors, the selling distributor shall include such milk in his total "Fluid Milk" sales. However, in case one distributor sells milk to another for the sole and only purpose of manufacturing, such milk shall be considered as "Manufactured Milk" by both distributors.

Mike—"Why do thim false eyes be made of glass?"

Pat—"Shure, an' how could they see thru thim if they wasn't?"

Importance of Uniform Quality of Cheese

HOARD'S DAIRYMAN:—I am proud of the cheese industry of the State of Wisconsin. I am thankful to the Divine Providence that permitted me to be born in that grand old state. Wisconsin is proud and justly so of the fact that she produces over 400,000,000 pounds of cheese annually or representing in dollars and cents over $100,000,000 annually. Of this output about 275,000,000 pounds are American Cheddar cheese. It has been truthfully said that the dairy industry produces more new wealth than any other with which it may be compared. It has been said that Wisconsin's cheese production would annually make a tunnel of cheese 30 feet wide with roof extending from Chicago to Milwaukee.

However, in spite of this prosperity, how much greater could that prosperity be and the price for dairy products increased if we could only attain one goal and that uniformity. A small word of only ten letters, but it means a whale of a lot to the cheese industry. Coming through the darkness one thing has come to assist the dairy farmer to a light of a better day. This is loaf cheese.

So important is loaf cheese as a commodity, that a certain degree of opposition can naturally be expected. As far as the public is concerned, it is highly pleased with loaf cheese. The best evidence of the popularity of loaf cheese is in the volume of sales running into the millions of pounds. One of the loaf manufacturers and the one that is most successful manufactures five hundred 350-lb. batches or 175,000 pounds of loaf cheese daily. That is exactly what they are making at the present moment and what the orders call for.

One of the most crying needs of the cheese industry of today is uniformity. It is and always will be impossible to get a definite method of manufacturing cheese in the 2,800 cheese factories of Wisconsin. If we take into consideration the differences produced by the seasonal changes or variations and curing, any student of cheese, familiar with marketing conditions, will readily affirm that the need of uniformity in cheese is really the big stepping stone to success.

Another need in the cheese business is a cured cheese. You go to town and buy a pound of cheese and if it is exactly what you like, you go back for another pound of the same. Another cheese is on the counter; the dealer assures you it is equally good. When you get your pound home you find it is as different as day from night and you do not like it. The greater part of the pound is thrown away; you are disgusted with cheese. The flavor of loaf cheese is always the same; as a result, you know what you are getting. There is nothing to attract the consumer to a tough, rubbery green cheese. The big drawing card of cheese, flavor and aroma, is entirely lost. Cheese more than any other food is eaten for flavor. I know from my own experience that there is entirely too much green bulk cheese on the market today.

Loaf cheese is made by the reheating of commercial or bulk cheese up to a pasteurizing temperature. Pasteurizing the cheese just before it is ready for consumption is the best method yet devised for the solving of the pasteurizing problem for this dairy product, for the following reasons.

By this method cheese can be blended so as to secure a uniform and characteristic flavor. The proper blending of the cheese is more important than any other factor. It does not take a cook with much experience to cook a batch of cheese that is properly blended; on the other hand, it is next to impossible to turn out a good batch of cheese that has been improperly blended. Pasteurizing always brings out the defects in the cheese.

The pasteurizing of the cheese is carried out within a few weeks of its final consumption.

There are different methods of making loaf cheese in the United States today. Essentially preparation consists of cleaning the cheese, removing bandages, paraffine, etc.; grinding the cheese, heating in a jacketed container with agitation, and filling into the proper containers. The process is watched and no cheese that does not come up to standard is allowed to go into loaf cheese. Men that have spent a lifetime in the cheese game watch the process all along the line.

When the cheese is heated there is at first a slight separation of butterfat, so that the ground particles appear oily. With more heat the cheese becomes plastic or stringy, and is said to "pull up". Upon a further agitation and heating this plastic condition is broken up and a homogeneous mass resembling the consistency of dough is the finished product in the hot state.

After each lot is inspected, it is emptied through funnels to the feeders in the packing department. The machine in use is a modified dough weighing machine. The dough-like prepared cheese enters this machine through the funnels and is fed into a revolving cylinder which measures out the cheese in five-pound quantities and discharges them through openings in the cylinder's side, two five-pound loaves being discharged at each half revolution of the cylinder. Each of these machines can weigh out 14,000 five-pound loaves per day.

The temperature of heating the cheese is very important and must be carefully watched. Some cheese can stand more heat than others. When finished the cheese should have strands about 15 inches in length—they should not be tough. There should be no free fat or free moisture. A noticeable gloss on the cheese is desirable.

Pasteurization of cheese has a wide application. American Cheddar, Swiss, Brick, Limburger, and Cammembert cheese have been successfully made. The soft cheese group has not yet yielded to this treatment.

Illinois. C. R. BARKER.

That which makes the glory of the nations is not the senseless clamor raised in public places, but the noble thought concealed in some garret, which, spreading one day over the whole world, will change its face.'—ANATOLE FRANCE.



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EDITORIAL COMMENT



A WELL known, successful breeder of dairy cattle in Iowa made the following statement to a group of farmers at a creamery booster meeting: "Many times the right place to begin to improve dairying in different communities is to develop a new breed of dairymen." A Canadian Holstein breeder is credited with this statement, "We do a lot of talking about the 4,000-lb. cow but we should get after the 4,000-lb. man."

One rarely finds a poor man in company with a good herd of cows, and it cannot be successfully denied that the company of good cows has some beneficial effect on a man. It must always be remembered, however, that the man is the more important factor of the two in approaching that degree of success desired by most dairymen.

HOW ARE WE BUILDING?

Every farm, every farm barn and the arrangement of the lesser buildings about it, every farm house and its dooryard, every herd of cows, the team, the tools, and the fences, all reflect the character of the man behind them. What a lot of farmers advertise to the world that they belong to the ill-kept, unkempt, helter-skelter order of humanity! Everything about the farm tells that story. It has been said of many a man that "he buildeth better than he knew". If so, it was because he built in harmony with the central spirit and purpose of his life. If the man had no central spirit or purpose, save to hoard up a few dollars, then whatever he built was out of harmony and proportion, "thrown together" as we often see.

As farmers come to a larger measure of mind and understanding they will see that every farm is in reality a living center of "spirit and purpose". It has an object and the best expression of that object, the most harmonious and most efficient, is after all the real business of the farmer.

PASTURE IMPORTANT

"The weakest place in our knowledge of forage production," says C. V. Piper in the preface to his revised edition of Forage Crops, "is that relating to pasture and pasturage. Pastures furnish not only one-half of the total feed for animals, but they supply the only really cheap feed."

The dairy farmer has for years recognized the necessity of supplementing his bluegrass pastures with silage, soiling crops, or other feed. In many cases sad experience has created in him a disrespect for pasture. In his series of articles, Professor Fraser has given one way out through the use of sweet clover. But, whether it be sweet clover or something else, the dairy farmer is deeply concerned in the matter of pasture improvement.

Not only does pasture furnish the cheapest feed for the dairy cow and conserve the labor of the dairyman during the busy cropping season, but he is interested in pasture because science tells him that the green grasses contain a vitamin that aids the cow in the assimilation of lime. There is the further thought that the failure of cows to assimiliate sufficient lime is responsible for a portion of the sterility, irregular breeding, and abortion that are big factors in reducing farm profits.

We recently reviewed a copy of Willard's "Practical Dairy Husbandry" that was published back in 1872. Among the advertisements we find one of bone meal in which prominence is given the statement that bone meal is an "undoubted remedy for the dairy scourge—abortion in cattle".

Why do we cite this advertisement of a half century ago? If bone meal were a specific for abortion then, why has not its use become general and the losses exacted by abortion lessened? In the first place, it is extremely doubtful whether it is a "specific cure" for abortion. However, this does not mean that the assimilation of a proper amount of lime and phosphorus may not be helpful, but that it is not sufficient merely to feed these materials. Science has told us recently that they are not assimilated readily, but that when fed with green grass the cow can store up these minerals in her body. From this we get a new angle on the possible importance of supplying green feed for as long a period as possible to our dairy cows.

All of which reinforces the concluding statement of Mr. Piper, "The better management and improvement of pastures is perhaps the most crying need of American agriculture."

BEWARE OF MORTGAGES

A Vermont farmer some twenty years ago said to his son, "Beware of mortgages." This man had spent twenty or more years to lift a mortgage from his farm and he appreciated just what it meant to pay interest. As most farmers dislike mortgages they wait until they have money enough to pay for a thing which will not increase their incomes. They will run in debt for land, machinery, equipment, etc., that will help them in their work, but the most of them will not do this until they can make a substantial payment and can clearly see how they can pay off the mortgage. The following story was recently related to us:

Some years ago, a woman came out of a bank crying. Upon investigation it was learned that her husband had just borrowed $500 and placed a mortgage on their farm. Someone said to her, "I can't see why you should cry since your husband has been able to secure the money he requested from the bank." Her reply was significant: "We have just been able to make a living without this mortgage and how are we going to make one with the mortgage?"

If more people were concerned about running in debt and fully appreciated, as this woman did, its meaning, there would be fewer farm foreclosures. Debts incurred for increasing the income of the farm are not objectionable but, on the other hand, highly desirable. The wise farmer knows how he will use borrowed money before he places a mortgage on his farm and he will have well laid plans for paying the interest and meeting the mortgage when it comes due. Debts do not mean poverty but, rightly managed, mean prosperity and opportunity to increase the income of the farm.

SKIMMILK FOR BREAD

Wheat is the staff of life. It is one of our most common and important foods. A great majority of the people of the world use it in their daily diets, and it is looked upon as being essential to a well balanced meal. Recent investigations have brought new information concerning the building of healthful diets for people and it has been shown that the mineral matter of milk and its protein, as well as its fat, are highly essential to a good diet.

Much experimental work has been done to show the value of skimmilk in the making of bread. It is a common practice to use water, but with the advanced information concerning the proper diets it is found that wheat bread is very much improved by the use of skimmilk. The skimmilk provides mineral substances which are shown to be the most essential in building a healthful diet. Skimmilk also provides a complete protein.

In this country we have millions of pounds of skimmilk that are not returning the dairy farmer sufficient compensation. In the past few years much of this skimmilk is being turned into skimmilk powder and is being used in a few of the bakeries in the manufacture of bread, cake, etc. The quantity used in comparison with the opportunity of using skimmilk powder in bread is very small.

The housewife on the farm would find it advantageous to use skimmilk instead of water in making bread. The baker can afford to use skimmilk powder because it not only produces a more nutritious bread, but it actually increases the weight of the bread sufficiently to pay for the skimmilk powder. Even if it didn't do this, bread made of skimmilk powder would sell for enough more to yield a profit on the skimmilk used. It is important to the dairy industry and to the consumer that skimmilk instead of water be used in the manufacture of bread.

SHIPPING MILK

How far can milk be shipped and have it arrive at its destination in good, wholesome condition? This question has not been answered, but we believe that milk properly produced and handled can be shipped across the continent and still be in first class condition for drinking, or uses of various kinds.

At this year's Dairy Show was a unique exhibit of a truck carrying 1,350 gallons of pasteurized milk from Pittsburgh, Pa., to Milwaukee, Wis., a distance of nearly 600 miles. This truck left Pittsburgh at 10:05 p. m. Saturday, September 27, and arrived in Milwaukee 4:30 a. m. September 30. The milk, when put in the well-insulated tank, was cooled to a temperature of 36 degrees F. and when it arrived in Milwaukee it was 41 degrees F. After it stood in the warm sun for three or four days its temperature was 41½ degrees F. The milk was served to National Dairy Show visitors throughout the entire week, and we can attest that on Thursday, October 2nd, it was still as sweet and palatable as any one could desire. This unique demonstration shows what can be done when milk is properly produced, cooled to a low temperature, and held there until its consumption. Cleanliness, pasteurization, and cooling, when properly applied, will permit milk to be shipped almost any distance and arrive at its destination as perfect food.

UNIFORM QUALITY CHEESE

Elsewhere in this issue will be found an article by C. R. Barker of Illinois, discussing the importance of a uniform quality of cheese. In his communication he also describes how loaf cheese is made; how the process makes it possible to place on the market a more uniform quality product. We appreciate that since the advent of the loaf cheese the consumer has been given a better opportunity to purchase a uniform quality product and to purchase cheese in an attractive package and to keep a good supply on hand without danger of deterioration.

Loaf cheese has its place on the market. It does not, by any means, fulfill all the requirements of the consumers. No one kind or grade of cheese will meet the taste of every consumer. We quite agree with Mr. Barker that we need better quality of cheese and we also need more brands. Some consumers like old, firm, meaty cheese. Others like a soft, porous, weak body cheese and mild in flavor. There are various other grades of cheese, but these two types are sufficient to illustrate the point we desire to make.

It seems to us that if our well-cured cheese could be put up under a brand so the consumer who likes this kind of cheese could order it by brand, it would be the means of materially increasing the consumption of cheese. Likewise the fresh, porous cheese could be put up under a brand. Some people will not eat old cheese. To our way of thinking, they should like it for it is the best, so far as our taste is concerned, but if the consumer does not like it and prefers the newer cheese, it is only wise that this kind of cheese be put up under a brand so the consumer can purchase it.

It is disappointing to order a pound of cheese and then find it is not the kind that meets the taste of the family. The only way to approach meeting the tastes of all individuals is to have a number of brands and then exercise every precaution to have the quality of cheese run uniform under that brand.

When the cheese industry is fully organized there will be many brands of cheese placed on the market and then the consumer will have an opportunity to purchase the kind of cheese that meets his personal taste.

Smut in Cane Silage

I have orange cane with about one-sixth of heads smut. Is it safe to use same for silage? Some think cutter will knock smut out. I will thank you for opinion at earliest convenience as feed should be cut at once.

Cloud Chief, Okla. R. K. G.

The possible danger from smut is very slight. There is plenty of information showing plainly that smut in corn is entirely harmless when consumed by animals, and we are reasonably certain that the same thing applies to smut in cane. I find in talking to our experts in plant diseases that some of the smut that appears in sorghum cane is the same as that which appears in corn. If this is the case there would be no danger in feeding it. Further, they say that so far as is known there is no smut that is dangerous. I've personally experimented with corn smut and have fed a cow with five or six pounds a day for several weeks without any effects whatever.

Minnesota College of Agr. C. H. ECKLES.

Reseeding Sweet Clover

I tried a 5-acre piece of sweet clover for pasture this season. We succeeded beyond our hopes in regard to the amount of feed raised, but the most of it is still there and gone to seed, much of it about dry.

It was my intention to sow more seed in the sweet clover this spring, but it came on so slowly that I didn't know whether it was going to do well or not, so didn't bother. I found on examination that when the sweet clover was four inches above ground, it was over two feet below. It is nicely inoculated, used twice as much soil as seed and was drilled in and last year was the driest I ever saw.

The sweet clover is just one tangled mass. Could I cut it with a mower in a week or so, plow it shallow and seed it to rye and sweet clover and have sweet clover pasture there next spring?

Princeton, Minn. F. M. P.

I would not cut the sweet clover that has gone to seed and plow the land, as this would involve a good deal of work. As your correspondent wants this land in sweet clover pasture next year, the abundance of seed produced and trampled into the ground by the stock pasturing it should produce an excellent stand next spring without being touched.

I do not believe the extra pasture obtained from seeded rye would pay for the trouble. It would probably hinder the growth of the sweet clover and reduce the amount of pasture that could be received from this during dry weather in midsummer when the blue grass pasture, which is used in connection with this, would fail.

In the latitude of northern Illinois, it would be better if the cows could be kept off from this young sweet clover until about the first of June.

University of Illinois. W. J. FRASER.

Alfalfa in Georgia

HOARD'S DAIRYMAN:—Again and again we have been told that alfalfa belongs west of the Mississippi river; and still many more times have we been advised not to bother with it in the Southeast. It is adapted to a climate lacking the humidity that prevails in the eastern states. It is generally believed by those who have made a general survey of the situation that it is not suited to Georgia and other southern states.

In spite of all this, it seems from the information that seeps through to us that the acreage planted to alfalfa is increasing in such states as Wisconsin and Ohio in the Middle West; and certainly, farmers in this immediate section, that is in the northeastern part of Georgia, are sowing more alfalfa this fall than has ever been sown in any one year previous to this one.

Why is this? I have asked a number of farmers here about their alfalfa with the hope of answering this question. It seems that one of the reasons for the increased interest in alfalfa is the possibilities that exist in raising it as a cash crop. Hay is usually in good demand. It also usually sells well. Local dairymen have learned to appreciate the feeding value of alfalfa and at present it finds a ready sale at profitable prices. To illustrate, W. L. Childs, a farmer living near Athens, Ga., has four acres in alfalfa. This summer he baled the hay and sold enough from the four acres to give him $184 over and above the cost of harvesting and baling. He will obtain another cutting either late in September or early in October. Mr. Childs seeded these four acres in the fall of 1921 but failed to get good inoculation. He reseeded it in the fall of 1922 and got a fine stand. The production of 1923 was better than 1924, although the condition of the field is better at this writing, September 22, than last year this time. This was due to a very severe drought this past summer. From late in June until the second week in September no rain except occasional light showers were experienced. The alfalfa did not produce well but came through the dry and very hot summer in fine shape.

Mr. Childs states that the original cost in seed, lime, and acid phosphate was approximately $20 per acre. He has made preparation to sow a larger field this fall and states that he hopes to get fifty acres in this legume in the next few years, as he believes that it will give him a greater net profit than any of the other crops adapted to this section. He followed cowpea hay with the alfalfa, turning the peas under early in the summer in sufficient time to get the soil firm before sowing alfalfa. This fall he is going to try cutting of the pea vines or hay, harrowing the soil only and then sowing.

Mr. A. P. Winston, another farmer near Athens, has been an alfalfa enthusiast for years. He has sown alfalfa both in the early fall and in March with good results. He uses from three to four tons of lime per acre and from five hundred to six hundred pounds of acid phosphate. I asked him why he liked alfalfa and he unburdened himself after the following fashion: "The dry weather this summer almost ruined my corn, and did ruin my chances of making pea vine hay. Corn is quoted at $1.14. If we are compelled to ship in corn next spring and summer to feed our work stock, it is likely that we will have to pay over $1.50 a bushel for it. I have a lot of mules to feed. With the short corn crop and the almost no pea vine hay crop, alfalfa looks like my only chance of making a crop next year. I can get through the winter on corn stover and scraps for feed, but when work commences next spring the mules need sure enough feed. I figure that alfalfa and a half ration of corn will do as well as ordinary hay and a full ration of corn. Then, of course, the $400 I got the other day for some alfalfa hay I sold, helps my feelings a lot."

The reasons for increasing the acreage in alfalfa are illustrated by the cases cited above. Some desire a cash crop of high acre return, others want a feed of high value per acre.

The growing of alfalfa here is of recent development. The Georgia State College of Agriculture has been the prime mover in the development. On their test plots they seeded some alfalfa about 14 years ago. It looked so promising that Dr. Milton P. Jarnagin, who had charge of the general farming operations, seeded two acres the next fall. This was followed the next year with a seven-acre field. This seven-acre field is still in alfalfa from the orginal seeding. It has produced approximately 275 tons of hay. The college had 50 acres in alfalfa in all this year, of which seven acres were used for hog pasturage.

They recommended the sowing of alfalfa during the last week of September or the first of October. They also advocate the use of from two to three tons of lime and from four to six hundred pounds of acid phosphate at seeding time. The amount of lime to use is an open question, some of the alfalfa growers stating that one ton is sufficient while others use from five to six tons.

During the past season, the time of cutting of alfalfa has been given considerable attention and a few farmers are now waiting until the alfalfa is in full bloom, while in the past the cutting was commenced when the shoots at the base of the plants started to grow.

In January, 1915, Joe Wing was invited to the agricultural college to speak on alfalfa to the farmers attending farmers' week. His enthusiastical talk, which the writer was privileged to hear, gave a great impetus to alfalfa planting. At the time he made the suggestion to farmers that alfalfa be used both as a soil building crop and as a means of getting valuable hay. The former use of this legume is not being followed, as vetch is being sown on the lands worn out by constant cotton farming and seems to be better adapted to this purpose. Alfalfa is being grown on fertile soils and with heavy additional fertilization. At the time Mr. Wing made his talk here, he suggested that farmers use sweet clover for their poorest soils, but it has not been used to any extent. Although it has been nearly ten years since Mr. Wing's talk on alfalfa production, he is still constantly quoted as the leading authority on this subject.

Before leaving the subject, it might be well to mention that alfalfa has not proven successful in all parts of this state. In the Piedmont section where the heavy clayey soils are and in the limestone valleys of northwestern Georgia, alfalfa growing has become established, while in the coastal plains section there is practically no alfalfa grown.

Georgia. J. W. FIROR.

Home Suggestions to Breeders of Dairy Cows

HOARD'S DAIRYMAN:—Everybody knows that the black man belongs to the tropics and the white man to the temperate regions, and that either man suffers if he changes his natural habitat. Dr. Woodruff, late medical officer in the American army in the Philippines, published the results of numerous investigations to show that it was the evil influence of the sun which affected more particularly the blonde varieties of the white race and led to their extinction in three or four generations in warmer states of the South and the sunny states of the West as well as in Western Canada.

It was my privilege to meet Dr. Woodruff in Segon, Anam, about 1907. It was not known until 1887 that there was a universal law of relation between color and climate extending to all the animals in the tropics which are exposed to the full influence of the sun. I made the discovery in that year when investigating the different varieties of the hundred millions of cattle in India belonging to the zebu race of hump cattle. I found that although perhaps ninety per cent of them have white hair, their skins were invariably black or highly pigmented. It has since transpired that the advantage of pigmentation is its power to stop the penetration to the nerve centers of the ultra-violet rays or X-rays of the solar spectrum.

European cattle from which the various breeds of dairy cattle in America are descended are like the great majority of the European races, light in the skin under white hair. And they are therefore liable to suffer from sun-scald which results in blistering and an uneven, scurfy, unattractive appearance on the surface, also tenderness to the touch. There seems to be a tendency in America from a fancy point of view to incline to the white colored cattle. The Ayrshire, which normally is a brown cow, has been within the last fifty or sixty years transformed into a white animal with an occasional black patch and the same mistaken fancy extends to Canada and also to the mother country. In the latter case breeders have been induced to cultivate their white varieties to secure a footing in the market in America and Canada. The Swedes, who now possess the greatest number of Ayrshire cattle in any part of the world, came to Scotland about sixty years ago and picked up a great many of the best bred cattle at very moderate prices. They made no mistake about the color and not only the color but the true type of the Ayrshire breed is there represented in its tens of thousands today.

Some of the Holstein breeders appear to be inclined to follow the same mistaken course and breed white animals. They are doing so because some of the earliest of the heavy milkers were almost white. I have seen the male and female specimens which have been exhibited of the breed in plaster and they have only one objection, and that is that there is too much white near to the back line. The first and most important regulation to my mind for the defense of the breed in the climate of America is that it should have a black back extending down to the mid rib; white feet, legs, and a white underline are all right but a white back will in the course of time undermine the constitution of the cow and injure it as a milk producer.

Another important reason why the Holstein breeders' association should make no mistake in this very important matter of color is that if they go white they need not expect foreign buyers from South Africa, Australia, or even from Europe where already the question of color has received attention.

Jersey breeders have been wise in their generation, for the color of the Jersey as seen is much darker than that now prevailing in the islands of Jersey. The breed as a whole is a bigger animal showing development in constitutional vigor. In spite of its white color the Ayrshire breed is bigger than it is at home and if it were only back to its own normal hair coloring there is no reason why it should not still further improve, if breeders will keep in mind that to maintain the type they must now and then go back to the original home of the breed for a change of blood by the introduction of a superior bull.

Scotland. (DR.) ROBERT WALLACE.

Hoard's Dairyman

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General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
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Coming Events

Nov. 1-8—Pacific International Live Stock Exposition. Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

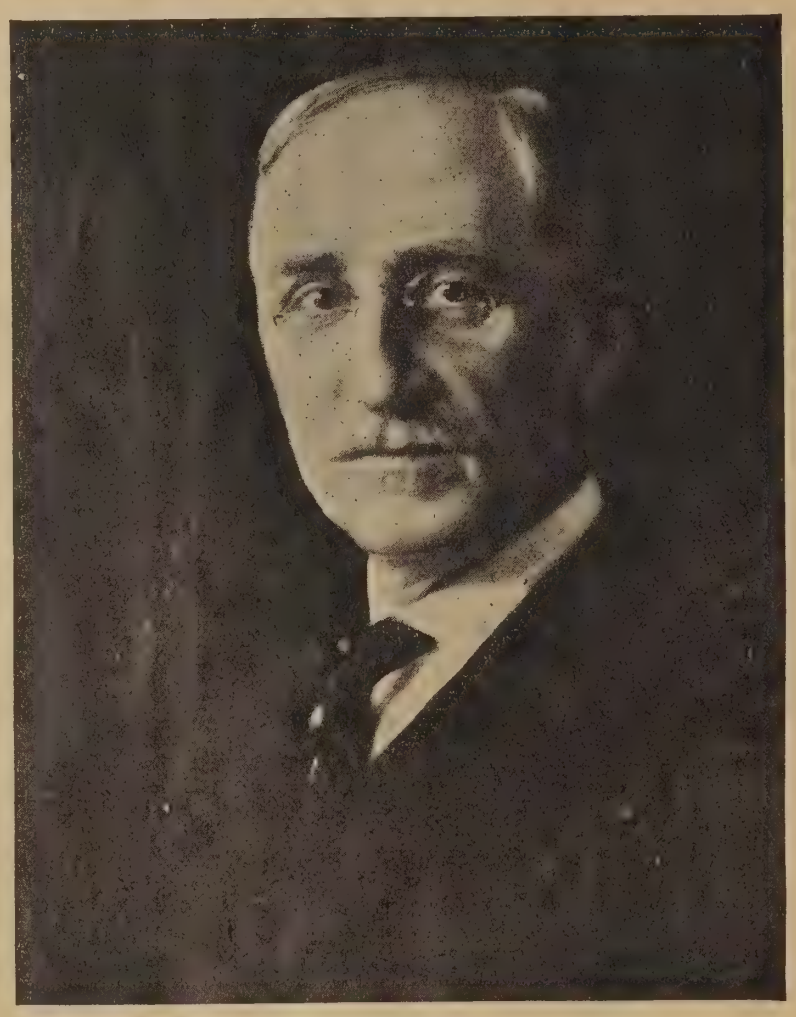
Correction

Adell of Burnham Beach was placed second in the aged cow class at the Eastern States Exposition. In our report of this show she was mentioned as being in the three-year-old class. In view of the fact that she was not a blue ribbon winner we trust no inconvenience has been caused.

Honor Professor Farrington

HONOR was given one of Wisconsin's leading pioneer dairy investigators when friends and colleagues gathered at the unveiling of a handsome portrait of Edward Holyoke Farrington presented to the University of Wisconsin at a banquet gathering during National Dairy Exposition week in Milwaukee.

For the past thirty years, Professor Farrington has been head of the Department of Dairying at the Wisconsin College of Agriculture and has been responsible for several important contributions to the dairy industry. He is widely known throughout the dairy world as a scientist, investigator, author, scholar, executive, administrator, teacher, gentleman, and "man among men".



E. H. FARRINGTON

A. C. Baer, Oklahoma A. & M. College, presided at the banquet. In terms well deserved, tribute was paid by several speakers to the achievements and contributions of Professor Farrington—Dr. C. W. Larson, Chief of the Bureau of Dairying, A. C. Dahlberg of the New York Experiment Station, Tom Otto of the Harmony Creamery Company, and Mr. E. K. Slater of the Olson Publishing Company. That students of Professor Farrington are scattered all around the world was brought out in a most interesting letter read by Chairman Baer from Gustav Benkendorf, formerly associated with Professor Farrington at Madison, but now located with a dairy manufacturing company in California.

The formal presentation was made by Professor W. H. E. Reid of the University of Missouri. Professor Reid reviewed briefly the life of Professor Farrington. Born in 1860, Edward Holyoke Farrington spent his boyhood days in the state of Maine. At twenty-one he received his Bachelor of Science degree from the University of Maine, and later the degree of Master of Science. He also studied at the Sheffield Scientific School at Yale. Professor Farrington then became chemist at the Connecticut Agricultural Experiment Station. In 1889 he moved to Washington, D. C., and became the first editor of the Experiment Station Record. A call came from the University of Illinois for a chemist, and Professor Farrington answered. He served there for about five years and then went to Wisconsin as head of the Dairy Department. He served as chemist at the World's Fair Dairy Tests in Chicago in 1893 and in St. Louis in 1904.

When Professor Farrington first began his work at the University of Wisconsin, modern dairy manufacturing equipment was practically unknown. Through his investigations as a scientist, he contributed three widely known and used inventions, the Farrington alkaline tablets, the milk sediment test, and the test for moisture in butter. Only within the past year or two he has devised a test for accurately determining the per cent of butterfat in butter. He has written many bulletins, papers, and articles, and is co-author with the late F. W. Woll of "Testing Milk and Its Products".

"Through his personality, perseverance, common sense, and love for every student, the enrollment in the Dairy School has steadily increased year after year and placed the University of Wisconsin in the foremost ranks," said Professor Reid. "Some four thousand students have taken dairy work with Professor Farrington during the past thirty years. At the present time one out of every three managers of dairy manufacturing plants in the state of Wisconsin are students of Professor Farrington.

"The up-building of Wisconsin's dairy greatness has been the work of many men—none have made a more devoted and unselfish contribution than Edward Holyoke Farrington.

"In behalf of his former students, colleagues, and dairymen in this country and of all the world, I take great pleasure in presenting this portrait to the College of Agriculture at the University of Wisconsin."

Dean H. L. Russell accepted the portrait for the Hall of Fame now being established by the College of Agriculture.

"It is thirty years now since Professor Farrington joined the faculty of the University of Wisconsin," said Dean Russell. "He was thoroughly grounded in the principles of science—agricultural chemistry—and that is one of the foundation stones upon which his success has been built. There have been less changes in the administration of the various departments at the Wisconsin College of Agriculture than in most state colleges. I attribute the success which has come to the Dairy Department to the long period of leadership of Professor Farrington. I deem it a privilege and pleasure to accept this portrait in the name of the College of Agriculture."

Professor Farrington's portrait was painted by Arvid Nyholm of Chicago.

Wisconsin Dairymen to Meet

"Summer Feed for Dairy Cows" will be the main feature of a one-day session of the Wisconsin Dairymen's Association at Madison on Thursday, November 6. The principal speaker will be Professor W. J. Fraser, who will take as his topic "Ever Failing and Never Failing Pasture".

The evening session will be given over to a Dairy Conference of the various dairy and allied organizations of the state. It will be largely a round table discussion by each organization of the biggest problem now confronting it and how the other allied organizations can help in its solution. This discussion will be preceded by an address by E. R. McIntyre on "The Interdependence of the Various Branches of the Dairy Industry".

The morning and afternoon sessions will be held at the College of Agriculture in co-operation with the county agents and farm institute workers. The evening session will be held in the Hearing Room at the State Capitol. Further details may be secured by writing Secretary Paul C. Burchard, Fort Atkinson.

Tennessee Jersey Record

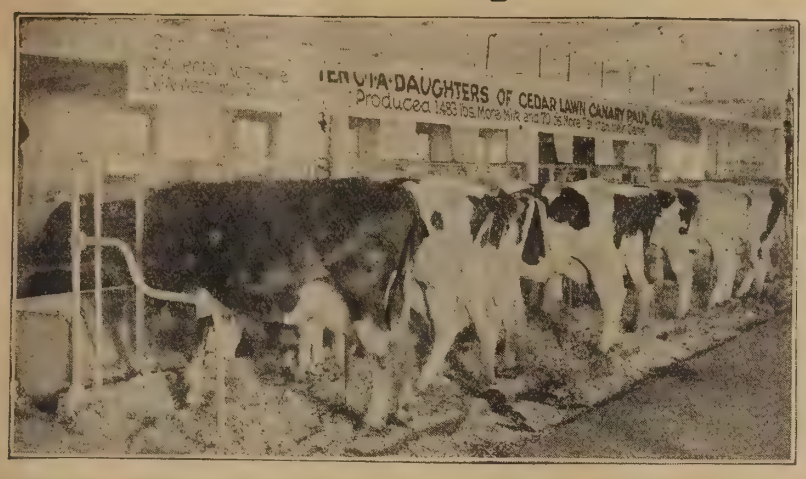
Since the beginning of this year three different Jersey cows have held the senior two-year-old Jersey championship and the record for this class for butterfat production is now almost 100 pounds higher than it was at the beginning of the year.

Noble Welcome's Flossie is the present title holder with a record of 597.71 pounds fat in 365 days. Test was commenced when Flossie was two years, seven years of age, and she carried calf for 193 days of the test. The new champion is owned by A. H. Mizell & Son.—American Jersey Cattle Club.

Fall Plowing Destroys Insects

Fall plowing of land infested with white grubs early in October before these pests go below the plow level will bring many of them to the surface where they can be devoured by chickens and birds or destroyed by freezing. It may be well to disk or harrow the newly plowed land to break up the soil and disturb the insects in it. If possible, chickens should have access to the field or garden as it is being worked.—Ohio Experiment Station.

Holstein Breeding Exhibit





CEDAR LAWN CANARY PAUL 6TH AND TEN OF HIS DAUGHTERS AS THEY APPEARED AT THE NATIONAL DAIRY SHOW

These daughters have shown their ability to produce 50 per cent more than their dams, which is high tribute to their sire as their dams had an average record of 342 pounds fat in a year.

CEDAR Lawn Canary Paul 6th objected to leaving his farm home in Washington County, Wisconsin, to visit the National Dairy Show. Although handled by his owners since his birth nine years ago, he refused their earnest solicitation to board the truck that was to carry him to Milwaukee. It took two experts from Milwaukee to induce him to take a free ride to the world's biggest and best dairy show.

"Sixth" not only fails to enjoy a kindly disposition, but he is not particularly prepossessing in appearance except to those who look first for dairy quality. Why, then, the effort to get him to the show? The reason is that his progeny have shown up well in the Allenton and Kohlsville Cow Testing Association that has finished its fifth year of testing with an average of 333 pounds fat per cow.

Ten daughters of this sire were shown by his side. In their immature form they produced seventy pounds more butterfat in a year than their dams did at mature age. If allowance for age be made, the heifers would be credited with an average yearly production of 14,313 lbs. milk containing 512 lbs. fat. The dams average 9,961 lbs. milk containing 342 lbs. fat. Canary Paul Sixth may well be credited with increasing the production of his daughters 50 per cent over that of their dams. This is more remarkable in that these dams were unusually good producing cows and would be a credit in any herd. In all breeding it is well recognized that the higher the record of the dam, the more difficult it is to increase the production of their daughters through breeding.

It is of large value to the Holstein breed that this old bull is still in service in the herds of the five farmers who now own and have been using him. It is to be hoped that he will be kept at work and give to his breed many daughters and sons of large dairy talent.

This exhibit was financed by the Holstein-Friesian Association of America and was made possible by the co-operation of the Wisconsin Dairymen's Association and the owners of the animals shown.

No matter how insistent the pressure of demand, Oakland always takes time to build each car right.

Rigid adherence to this manufacturing principle explains in large measure why the Oakland Six is winning and holding good will everywhere.

Standard equipment includes four-wheel brakes, disc steel wheels, balloon tires, Fisher Body, permanent top, Fisher one-piece V. V. windshield on closed types, Duco finish, centralized controls, unit instrument panel, automatic spark control. Glass enclosures for open cars at small added cost.

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Oakland Motor Car Company, Pontiac, Michigan

OAKLAND

PRODUCT OF GENERAL MOTORS

North Dakota Dairying

Last year North Dakota cows produced over forty-five million pounds of butterfat, according to the report of Dairy Commissioner Reynolds for the year ending June 30, 1924. Of this amount 23,724,520 lbs. were sold through cream stations for nearly ten million dollars. This is an increase of better than three and a half million pounds over the previous year. The price paid for fat raised from 36.3 cents a pound in 1923 to 40.3 cents for the year just closed. The increased price and increased production raised the returns to farmers by nearly two and a half million dollars.

In addition to fat sold to cream stations there were 11,626,240 pounds shipped direct by producers. The balance of the 45,181,879 pounds fat produced is accounted for in butter made on farms and in milk consumed.

"Looking back a few years," says Commissioner Reynolds, "one would find there were many who came to North Dakota with the purpose of raising grain, not milking. They claimed they had served their time as milkers, had been tied down in the eastern states, and came west where they could work a short time in spring and fall and make a year's pay. Many of these farmers have since seen their error and have changed into stock farmers, not only from the money received from selling cream and stock, but to rebuild and retain the fertility in the soil."

Again, in discussing the much discussed problem of overproduction, Mr. Reynolds says: "We do not need to worry as much about overproduction as we do about more economical production. This means better feeding and weeding out poor cows."

A system of cream grading has been established in which a price differential of four cents a pound fat has been agreed upon for first and second grade cream. The plan has not been in operation long enough to give definite results, but the Commissioner believes that improvement in quality has already appeared. Mr. Reynolds also discussed the evils of creameries offering premiums of various kinds to producers and is endeavoring to have them pay the highest cash price rather than give premiums of doubtful value.

North Dakota is knocking at the door for admittance to the "Corn Belt", and the dairy cow is helping her upward. During the year just closed the acreage of alfalfa and sweet clover increased from 135,844 to 223,876 acres, while corn increased from 776,156 to 1,158,365 acres.

South Carolina Holstein

Princess Nell Ormsby is now the state's leading cow of the breed for production in one year as a senior four-year-old. Her record is 20,889.7 pounds milk and 678.25 pounds butterfat, equivalent to 847.8 pounds butter. She is owned by V. M. Montgomery.—Extension Service Holstein-Friesian Ass'n. of America.

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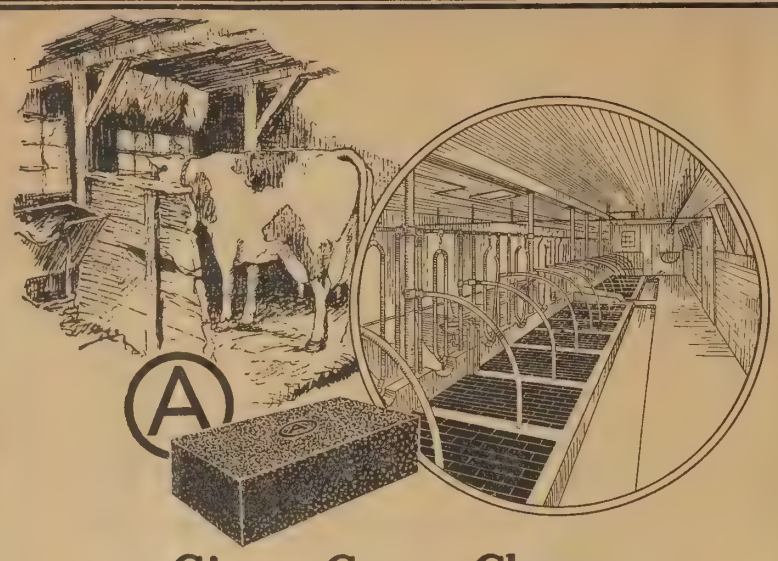
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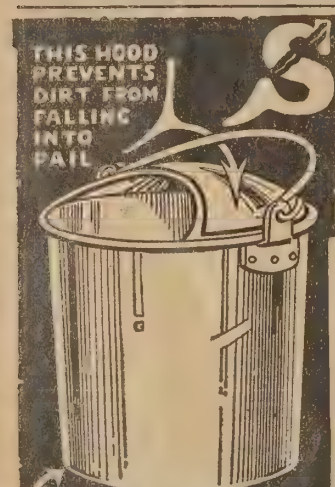
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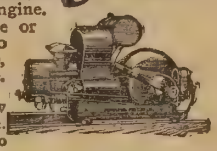
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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Wallace Replies to Charges Made by Marsh

On August 20th, Benjamin C. Marsh, Managing Director of the Farmers' National Council, wrote a letter to President Coolidge in which he stated that the termination of the appointment of John M. Burns, a law clerk in the Department of Agriculture, was "one of the most underhanded and sneaking cases of official terrorism in our country's history." He made reference to Burns' appearance before the House Committee on Expenditures last May in which he testified to the "gross maladministration of the Packers and Stockyards Act". Marsh charged further that Secretary Wallace appeared before the House Committee on Agriculture and "attempted to blacken the character of Mr. John M. Burns".

Secretary Wallace's reply to Marsh is given herewith in full:

SEPTEMBER 24, 1924.

BENJAMIN C. MARSH,
WASHINGTON, D. C.

SIR:—Your letter of August 24 to the President, in which you speak of the termination of the employment of John M. Burns, a law worker in this Department, has been referred to me with the request that I reply directly to you.

This letter is simply one more evidence of your malicious efforts to hamper and discredit the Department of Agriculture in its difficult task of eradicating the many improper practices which have existed at the various live stock markets and making sure that these markets are free, open, and competitive, and that farmers and stockmen receive the fair prices for their stock, just weight, and a square deal in every way.

You refer to the termination of Burns' appointment as a case of official terrorism. On the contrary, the Burns case was handled with far greater consideration than he had any right to expect, and he, himself, expressed appreciation of my consideration of him.

Burns' charges against the administrative officers of the Packers and Stock Yards Adminstration made before the Congressional Committee were thoroughly exploded and refuted not only by representatives of this Department but by such voluntary witnesses as John C. Brown of Indiana, formerly president of the Indiana Farm Bureau Federation, and later president of the largest live stock co-operative marketing association of producers; Charles C. Collins, of Colorado, long identified with western live stock associations, and others. The hearings of the committee had continued but a few days when it became evident that they had been instituted as a result of your misrepresentation and deceptions for purely political purposes, and that there was no foundation for the charges made against the officers of this Department.

You say that I appeared before the House Committee on Agriculture and attempted to blacken the character of Burns. There is not a word of truth in this statement. When appearing before this committee on another matter, a member referred to the charges made by Burns. I said I hoped the Agricultural Committee would have time to look into that whole matter. Whereupon a member of the committee said something to the effect that Burns seemed to be having a brain storm, and I replied that that seemed to be all there was to it.

I have a good deal of sympathy for Burns, who really has some legal ability, but who seems unable to resist the malign influences of persons like yourself, and consequently becomes a victim of your evil machinations.

You refer to my employment of an outside lawyer in connection with the Armour-Morris merger case. I employed Walter L. Fisher of Chicago, formerly Secretary of the Interior, more than a year ago because of his outstanding ability and his long experience with the packers as attorney for the Marketing Committee of the American National Live Stock Association, which for years was active in securing a law for the control of the packers. Even you do not dare challenge the wisdom of this appointment.

Your letter carries the impression that you are authorized to speak for a considerable and responsible group of farmers. I know very well that you are not. You do not represent farm sentiment. You are not working in the interests of farmers, but on the contrary are, and for years have been, doing the cause of agriculture great harm.

I answer your letter only because it was sent to me to be answered. I know that neither you nor your letters are entitled to any attention or consideration whatsoever from anyone in a position of responsibility.

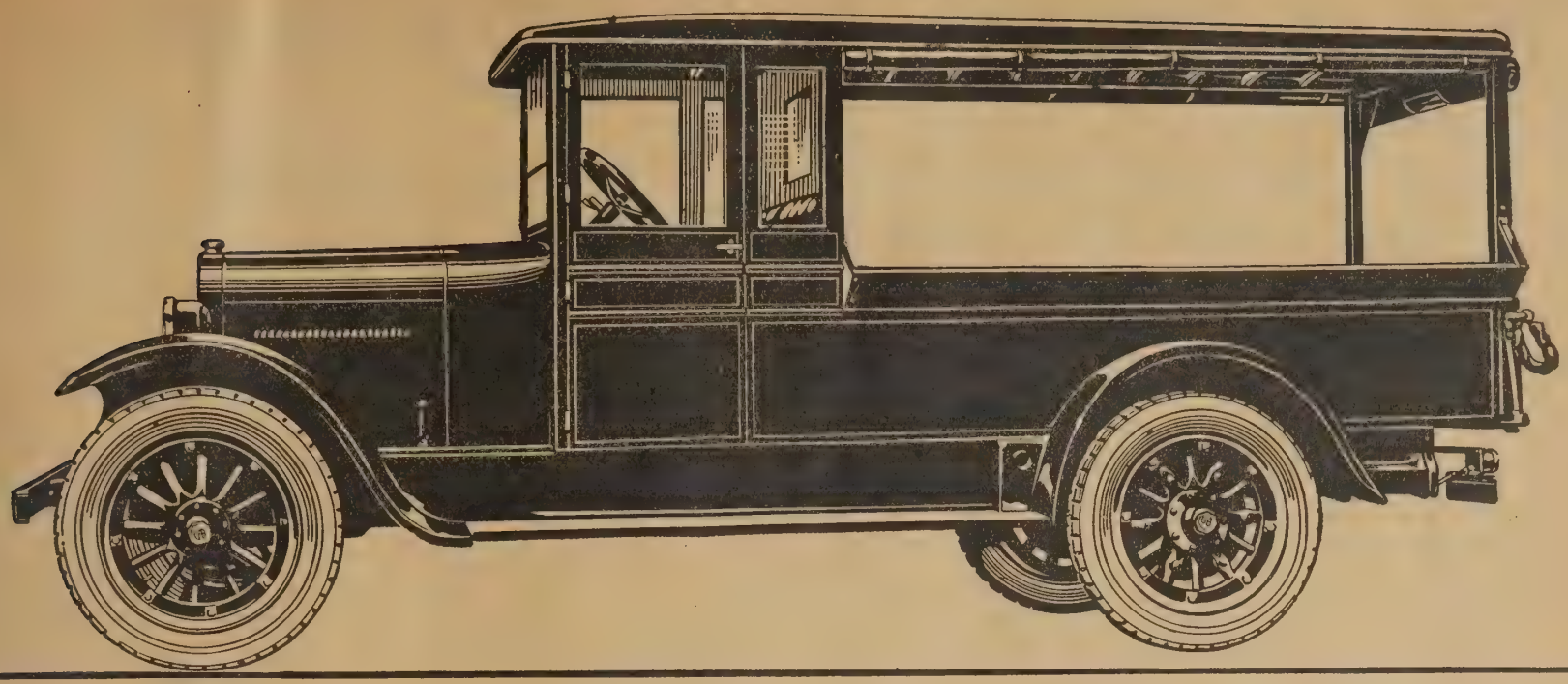
Very truly,
(Signed) HENRY C. WALLACE.

Co-operation

HOARD'S DAIRYMAN:—What is co-operation? There is magic in the word. Where does it get it? In no place is there truer co-operation than in the ideal home and no better example of many co-operating than in our government. These co-operate for the general good, hence the admiration of the idea in the American mind. But a house divided against itself cannot stand, neither can a government stand with trusts, blocks, organized labor, or co-operative societies, whichever you choose to call them, all antagonistic to each other, (crying "I am the true, you are the false") dominating it in turn. Rule or ruin is their true slogan just as rule or ruin is advocated by various secret societies or creeds at present.

It has come to pass that when a man says merely, "I am an American citizen", it pains the investigating committee. Wealth organized for its own greed first, others follow suit. Could those who held the nation's trust have been true, these non-patriotisms could never have been. What we cannot obtain through justice and our home government, will never be obtained by a good looking sect with a knife behind its back, nor by a league of nations all opposed to our welfare. Such a course means only bloodshed. Wake up and vote. Vote for a reason. Vote for the man or woman with a good known record. Vote for the home. Just as Christ is the true cornerstone of the church and was rejected, so is the home rejected now, the home which is the head of the corner of all free governments including our own U. S. A.

Michigan. R. W. STEED.



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Transportation Expenses of a Cow Tester

RALPH RUSSELL, NEW YORK

WHAT do cow testers do with their money? Everyone expects them to be rolling in wealth. When I say I would like to own a presentable overcoat, a Ford younger than a nineteen-fourteen model or even a new radiator, a ticket to the movies, or what-not, the reaction of my auditor is always, "Well, you have plenty of money." An association tester is supplied with equipment and board and lodging by the members of the association, so that, except for his transportation, his wages are clear velvet. The tester is not often engaged in the occupation solely for the sake of the money there is in it, but it is peculiar that he is often without necessities through lack of money. Doubtless this is largely due to improvidence, but not wholly.

The innocent item of transportation should take some of the blame. Innocent appearing as it is, for travel of five miles a day, complicated somewhat by apparatus, books, and personal belongings, enough perhaps to fill a well-packed buggy or runabout truck, seems no great item. Be that as it may, at the end of fourteen months of testing I am unable to buy myself a needed pair of gloves and have a garage bill waiting for a portion of next month's wages.

A survey of my accounts for this period, singling out the items relating to transportation, reveals that the total cost for the fourteen months was $330.85, averaging $23.63 per month, the average salary for the period being $71.50. These costs should properly be divided into two periods: an era of horse drawn vehicles and a later period of motor transport. Before passing to a consideration by periods let me record that the transportation expenses for the year, October to October, were $285.71.

At the beginning of the association year in October, 1922, I purchased an old plug, an older Concord buggy, and a middle-aged harness which later developed leanings toward baling wire, that universal panacea. This outfit cost $65, a sleigh I later added to the fleet, $10. Three pair of shafts, purchased from time to time as the drifts became deeper and accidents more frequent, took me through the winter. As the farmer's friend, baling wire, as aforesaid, being more predominant in the make-up of the harness and another was procured second hand. The last of April, when the outfit was disposed of, all bills for shoes, calks, medicines, etc., had brought the total for transportation to $96.42.

The market for horses was very poor in the spring of 1923, so though I had fed Crowbait liberally at my patrons' cribs and easily doubled his value, I was compelled to sacrifice the entire outfit for $50. Thus I was out but $46.42 for seven months' cartage, averaging $6.63 a month, and the work of grooming, repairing outfit, and so on.

Moreover, though making always over twenty moves per month, and never waiting over on account of bad weather, but always carrying on until the month's round was done, Bait and I went through the most severe period of snow in the recent history of New York State, often breaking road, yet failing to get through but once. Though never carrying a snow shovel we missed a milking but twice, but the day the cutter tipped over in a blizzard was the only time we failed to get through. There were 21 successive days in January that year during which it never failed to snow at least a little during the 24 hours. And blow! From the great thaw, the first of January, until the 19th of March, there was no real thaw, and the thermometer was rarely above thirty-two. Except for the dread of the harness breaking and worry lest we might not be in time for milking, it was a very pleasant season, and Bait and I gained in health and weight.

My course of action with regard to buying a car was influenced by the fact that I had so far been unable to save any appreciable amount, and rather than go into debt to buy a good car I decided to buy with what little I had and face the heavy upkeep of a poor car. One of the members of the association had a 1914 Ford runabout truck, which I bought for $75. The night that I drew on the banks for this money, April 21, I had 50 cents left to me. The following week, I bought the truck body from the same man for $5.00.

The anticipated rapid disintegration and heavy upkeep did not disappoint me, and by the end of the year, that is, October 1, 1923, I had paid out on the auto $239.29, or approximately $47.86 per month for the five months it had been on the road, which, added to the expenses during the seven months preceding, $46.42, totalled $285.71, averaging for the 12 months $23.98.

The expenses of the next two months, October and November, amounted to $45.14, making the expenses for the seven months' auto use $284.43, $40.63 a month as compared with $6.63 for horse transportation. The total of the bills for gasoline and oil, of which I took particular account, was, for five months, $34.77, or $6.79 a month, and 14.5 per cent of the cost of keeping the machine. For seven months, these operating expenses, as I called them, were $46.42 or exactly the cost of horse transportation for the other seven months. This operating cost was 16.3 per cent of the auto expense, an indication, I thought, that study of the Rambling Wreck and personal service in repairing it had enabled me to reduce maintenance somewhat.

The complete total for transportation for 14 months was $330.85, averaging $23.63 a month. My total income for the year was $927.50; for the fourteen months, $1,067.50. According to these figures, 31 per cent of my income over the entire period went for transportation. For the seven months with Bait, the income was $540.40 with a transportation cost of $46.42. The seven months with the Rambling Wreck, my income was $526, and the transportation cost was $284.

My conclusions are not only that the cow tester's salary is not the clear velvet that it apears to be, but also that perhaps he would do well to stick to the humble horse, which cost in this instance one-sixth as much to maintain. On the other hand, considerable of this expense is doubtless due to social engagements which, with only a horse, the cow tester would be entirely cut off from. His time is so little his own that he would rarely get away from his work were it not for the automobile. With the horse the job soon becomes sheer drudgery; with the auto enough variety is introduced to make this occupation enjoyable though perhaps less profitable.

The argument for buying a new car rather than an old one never needed much bolstering, but here is a concrete foundation for it.

Ringing the Dairy Bull

J. O. TRETSVEN, MONTANA

ONE of the most important things connected with the management of the dairy sire, aside from the feeding, is in handling him so that he becomes tractable. To accomplish this, a ring inserted in his nose when 8 to 10 months old is most valuable to facilitate easy handling and making him submissive to his attendant. Failure to ring the bull at the proper time often leads to an unruly and dangerous animal. Not only is the life of the attendant endangered, but the value of the animal is greatly reduced. In many cases, the owners of vicious, though otherwise valuable, bulls are forced to sell them for bologna at the end of two years of service because buyers, or neighbors with whom they might exchange, do not want an unruly animal. Anyone who owns or handles a bull should be interested enough from a financial point of view, to say nothing of his own protection or the safety of the attendant, to provide it with a ring.

The best time to ring the bull is before he is a year old. At this time he is easily managed and soon learns to be handled by the ring. At first a 2-inch ring should be used. When this has been worn for about a year, it should be replaced by a 2½-inch ring. This size will serve well until the animal becomes very large, when a heavy 3-inch copper or gun metal ring should be used.

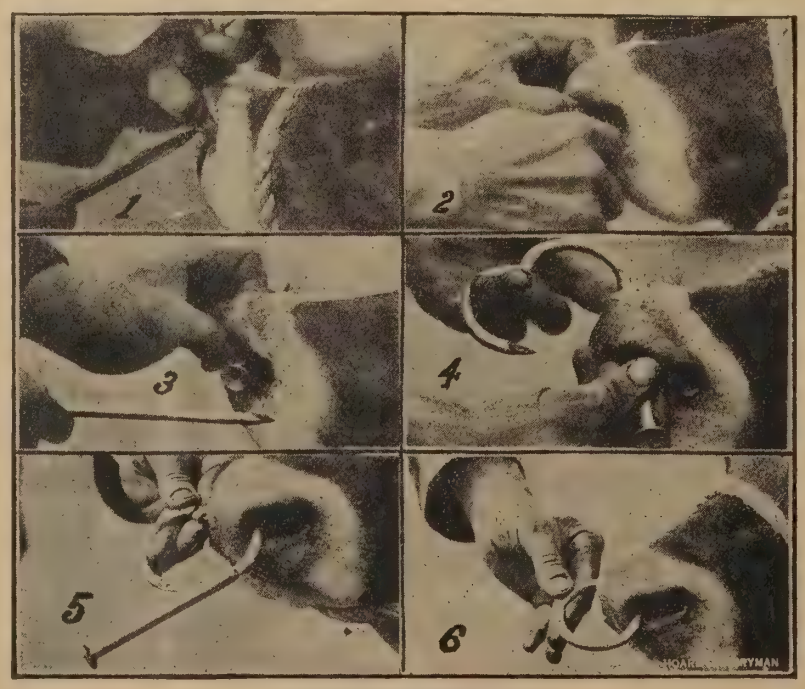
Ringing a bull is not a serious and difficult operation. By means of a sharp instrument, such as a pointed broken fork tine, a jackknife, or a trocar and canula (such as is used in tapping cattle for bloat), the membrane between the nostrils is easily punctured for inserting the ring.

The trocar and canula is about the most practical instrument to use, unless it is a punch made especially for the purpose, because the open canula makes it very easy for inserting the ring.

The accompanying series of pictures show the various steps taken in ringing a bull by the use of the trocar and canula.

In preparing the bull for ringing, it is well to have his head tied fast though often no trouble is experienced in ringing young bulls at the end of the halter.

After the bull is rung, he should not be handled by the ring until his nose is healed and at no time should he be handled so as to make him shy and fretful. While he is being taught to be handled by the ring, he should also learn to give his ring when the hand is stretched forward and the word "ring" is spoken. This is done by holding one hand out to receive the ring as the command is given. At the same time, with the other hand, by means of a rope attached to his ring, the nose is pulled to the outstretched hand. By repeating this several times the animal will soon learn to give his ring without any difficulty. As he grows older he should be handled gently but firmly and always with a strong staff.



HOW TO RING THE BULL

1. Ready to insert the trocar and canula. 2. Trocar and canula inserted in the division between the two nostrils. 3. Canula in nose after trocar has been removed. 4. Inserting end of the open ring into the canula. 5. Showing how the open ring is left in the nose as the canula is extracted. 6. The ring closed and the job completed.

Nobleness of the Dog

Remember always that, as Sir Walter Scott once said, "The Almighty who gave the dog to be the companion of our pleasures and our toils, hath invested him with a nature noble and incapable of deceit. He forgets neither friend nor foe, remembers with accuracy both benefit and injury. He hath a share of man's intelligence, but no share of man's falsehood. You may bribe an assassin to slay a man, or a witness to take away his life by a false accusation, but you cannot make a dog tear his benefactor."

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This is borne out by the fact that there are more than a dozen different makes, each parading before truck owners and truck prospects its claim of superiority.

Where there is so wide a variety to choose from, it is necessary to exercise the same common sense that influenced you to purchase the Ford Truck. Buying sanity, which is nothing more than balancing the outlay with the advantages secured, will guide you to selecting the Warford.

Few, if any, of the Warford competitors offer you as much actual transmission. In providing the Ford Truck with *six* speeds, Warford gives you both a reduction in gear ratio for heavy going and an *increase* in gear ratio for high road speed on paved highways at normal engine speed.

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Warford
AUXILIARY TRANSMISSION

The Warford Corporation, - 44 Whitehall Street, New York City



Hallowe'en Fun For Everybody

SOPHIA K. ORMOND

HALLOWE'EN falls on the last day of October, the following day being All Saints' Day. The celebration of this day dates back as far as the time of the Old Druids. During the entire year the Druids used to keep their fires burning on stone altars to honor the sun god. On the last night of October they dressed in white robes, put out the old fires, and built new ones. As the flames jumped up people tried to get some of the embers of the old fires and with them they started new fires in their own homes.

Later when Christianity put the Druid faith to flight, people soon came to believe that the fires burned up all the evil spirits and that only good fairies and witches and goblins danced in the woods.

So we can easily see how the early idea of a Hallowe'en of spirits and spooks has been handed down to us and why the notion to have a party or some kind of revel on Hallowe'en is still with us.

The essentials of a good Hallowe'en are a jolly group of young folks, an air of mystery about the place where the party is to be given, some good things to eat, and a good leader to start the thing off right and to keep it going.

It is always easy to get the young folks, for Hallowe'en parties are enjoyed by the very tiny folks as well as the older ones. It may be a party for the tiny girl and the dolls may be invited. Or, it may be a party for all the little folks who may dress up like cats, bats, and witches. A bride to be made it the occasion for an announcement party at which all the guests received little orange crepe paper bags containing little black cats. When the cats were let out of the bag the guests were surprised to find the names of the bride elect and the groom on the cat as well as the date they were to be married. Hallowe'en is also a splendid day on which to have a church party or a dance.

A cellar, an attic, or a barn would be as good as any place to have a party, as long as the place will hold the number of people necessary to accommodate and as long as the decorations make the place look "woodsy" and "spooky". Cornstalks, apples, pumpkins, and lanterns are the best decorations and they are easily obtained at this time of the year.

Some good things to eat are necessary. The bill is best filled with dark cake and cookies, apples, pumpkin pie, nuts, cider, or, if your crowd is older, with sandwiches and coffee.

A good leader to keep things moving is probably the most essential thing to make the party a success. Whoever is planning the party should select someone who is good some little time ahead so he can make plans as to just how he can keep the company entertained. If he is prepared with some of these old and new tricks he will be able to forestall any dull moments.

One of the oldest tricks is giving the guests an apple to pare. Each guest must keep the paring whole and when the apple is pared he must throw the paring over his left shoulder. As the paring drops to the ground the guest should be able to see in it the initial of his or her future life partner.

The "Three luggies" is another fortune telling stunt that is hardly ever omitted. Three bowls, one filled with water, one with milk, and one empty, are placed on the table. The guests blindfolded put their left forefinger into a bowl. The bowl containing milk signifies a desirable marriage, the bowl of water signifies marriage to a widow or widower, and the empty bowl signifies single blessedness.

Fortunes may be told on little cards put into envelopes and tied with different colored ribbons. The fortunes should read as follows:

Choose the bow of violet hue
You'll have a lover fond and true.

The bow of pink will bring you luck
A lover young and full of pluck.

Gladly take the bow of green
'Twill bring you gold and gems, I ween.

You'll soon move to another town
If you choose this bow of brown.

He who takes the bow of red
Will live alone and never wed.

Do not choose this bow of blue
Else you'll wed, not one, but two.

If you draw this bow of white
You'll see your own true love tonight.

Here is a spell-down that young or old would enjoy. It is guessing the nicknames of the states. A prize may be awarded to the person who guesses the largest number or who is at the head of the class at the end.

Alabama—Land of Flowers.
Arkansas—Bear State.
California—Golden State.
Colorado—Centennial.
Connecticut—Nutmeg.
Delaware—Blue Hen.
Florida—Peninsula State.
Georgia—Cracker State.
Illinois—Prairie State.
Indiana—Hoosier State.
Iowa—Hawkeye State.
Kansas—Jawhacker State.
Kentucky—Blue Grass.
Maine—Pine Tree State.
Maryland—Old Lind State.
Massachusetts—Bay State.
Michigan—Wolverine State.
Mississippi—Bayou State.
Minnesota—Gopher State.
Missouri—Bullion Stew.
Montana—Singed Cat.
Nevada—Silver State.
New Hampshire—Granite State.
New Jersey—Garden State.
New York—Empire State.

A substitute for a card party is the pumpkin seed party. For it the tables are arranged the same as for a card party. In the center of the tables a pumpkin is placed half filled with a mixture of pumpkin seeds and navy beans. At the time the leader specifies the players help themselves to a spoonful of the beans and seeds. They are removed from the pumpkin with a small spoon and placed on plates in front of the players. The players must pick them apart and the couple who has the most seeds when the leader calls the halt, progresses to the next table.

At the second table the game may be varied by having the players drive the seeds into apples or trying to get more seeds to their pile by carrying them from a dish on a pencil to their own plates. There should be simple little prizes for the ones who have succeeded best with their seeds.

Hallowe'en Cake

If you are not planning to go to much trouble for Hallowe'en this year, you can still give your family a little treat with a Hallowe'en cake.

Just make any recipe you like and bake it in a rectangular pan. Put on a yellow icing if you have the coloring; otherwise white is all right. When this has set, melt some chocolate over hot water, take a toothpick and, dipping it in the chocolate, either draw one large figure like a cat, witch, or jack-o'-lantern on the top or else score the top of the cake dividing it into pieces as you intend to cut it and then draw a figure on each piece.

The one big figure is less trouble and almost as much of a joy to the children, as they have a world of fun comparing their pieces to see what each one got in the way of the witch's cap, broomstick, and legs.

If you are very energetic you can cut the cake into pieces and put icing all around sides and top and then paint the pictures on the top and put a chocolate half moon on each side.

In case you are not satisfied with the recipe you have for plain white cake, here is one that has been my standby for years. It never fails if it is made with any care at all. It's only drawback is that in order to get the finest results you are obliged to use cake flour.

White Cake

½ cup shortening
1½ cups sugar
1 cup water or milk
1 teaspoon vanilla
3 cups flour
5 level teaspoons baking powder
Whites of three eggs.

Cream the shortening, add sugar, and cream again. Add the flour and water alternately, the baking powder being mixed into the flour in advance. Add vanilla and fold in the whites of the eggs beaten stiff.—LUCY THOMPSON.

Baby's Dusting Powder

If you have a little baby it goes without saying that you have a can of some kind of powder to dust him off with after his bath. It also goes without saying that he loves to get hold of this and shake it around and bite it. No matter how carefully you may close the top and no matter how small he is, there is always the chance that he may be able to get it open. So be sure you watch him for now and then a baby is smothered by getting his nose and mouth full of this dusting powder.—Lucy Thompson.

"Your husband has been ill?" asked the clergyman, who was paying his monthly call.

"Yes," replied the worried-looking woman. "He has been feeling very badly. I do my best to please him, but nothing seems to satisfy him."

"Is his condition critical?"

"It's worse than critical," she answered with a sigh, "it's abusive."

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2197—New Fall Style. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measuer. Size 36 takes 3⅝ yards 40-inch material.

No. 2203—Slenderizing Lines. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 takes 4 yards 44-inch material.

No. 1641—Becoming Style for Mature Figures. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 takes 3¾ yards 44-inch material with ⅜ yard 36-inch contrasting.

No. 2207—Attractive Apron. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 1¾ yards 36-inch material.

No. 2034—Slip to be made with built-up shoulder and V-neck or with straight upper edge and shoulder straps. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 takes 2⅝ yards 36-inch material.

No. 2190—Dress for the Tiny Miss. Cut in sizes 2, 4, and 6 years. Size 4 takes 2¼ yards 36-inch material with ⅜ yard 32-inch contrasting.

No. 1935—Smart Afternoon Dress. Cut in sizes 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3½ yards 40-inch material with 1¼ yards 36-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

When silver has become scratched, rub it with a piece of chamois dipped in oil.



50,000 Miles in a KNIGHT

One year—two years—three years—four years . . . adding up the miles like an adding machine . . . laughing time and distance down the wind . . . still young in looks and young in action . . . and you, the owner, living over and over again the first thrills of possession!

This big, luxurious Willys-Knight Sedan further endears itself the farther you drive. It carries its secret of long life under the hood—a whispering engine that literally *improves with use*—a fountain of power scotfree from all need of valve-grinding or carbon cleaning!

Time has never yet measured the full life of a Willys-Knight sleeve-valve engine. In ten years, now, no Willys-Knight engine has ever been known to wear out. Owners report 50,000 miles and more without spending a cent for repairs on the engine!

Fifty thousand miles of unshadowed pride and pleasure—and more to follow! Miles of lazy comfort—deep velour cushions to rest you—weathertight windows to protect you from storm and cold—and the easiest of all cars to handle. It steers as easily as you turn your head!

WILLYS-OVERLAND, INC., TOLEDO, OHIO

WILLYS-OVERLAND SALES CO. LTD., TORONTO, CANADA

WILLYS-KNIGHT

Remington Game Loads

Remington

Heavy Duck Load
Long Range Load

12-gauge suitable for Duck, Brant, and Jack Rabbit. No. 4, 5 or 6 Chilled or Soft Shot.

16-gauge suitable for Duck, Pheasant, Rabbit, Partridge, Grouse and Prairie Chicken. No. 4, 5 or 6 Chilled or Soft Shot.

20-gauge — 2¾ in. shells — suitable for Duck, Pheasant, Rabbit, Partridge, Prairie Chicken and Grouse. No. 6, 7 or 7½ Chilled or Soft Shot.



Remington

Specific Loads for Specific Game

Remington Game Loads are scientifically loaded to a uniform standard of velocity, pattern and penetration, all with moderate recoil. They are loaded exclusively with the finest American-made smokeless powders in Nitro Club *Wetproof* Shells. *Wetproof* means just what it says.



Duck Load

Suitable for Duck, Pheasant, Hawk, Crow, Rabbit, Partridge, Prairie Chicken and Grouse. 12, 16 and 20-gauge; No. 5, 6 or 7 Chilled or Soft Shot



Grouse Load

Suitable for Grouse, Prairie Chicken, Pheasant, Partridge, Dove, Rabbit, Duck and Squirrel. 12, 16 and 20-gauge: No. 7 Chilled or Soft Shot.



Buck Shot Load
Long Range Load

Suitable for Deer, Black Bear, and Wolf. 12-gauge; loaded with 12 pellets of No. 0 Eastern Shot.



Quail Load

Suitable for Quail, Dove, Woodcock, Rail, Plover and Snipe. 12, 16 and 20-gauge; No. 8 Chilled or Soft Shot.



Rabbit Load

Suitable for Rabbit and Squirrel. 12, 16 and 20-gauge; No. 6 Chilled or Soft Shot.

The Highest Quality Shotgun Shells Ever Produced

REMINGTON Game Loads are just two years old. Yet there are thousands and thousands of sportsmen the country over who will shoot no other shell. There are more and more Game Loads being bought and shot each day—the strongest possible endorsement of their superior shooting quality.

Specific Loads for Specific Game plus *Quality*—there you have the whole story of the success of Remington Game Loads.

The *right* load for duck, the *right* load for squirrel, the *right* load for quail and so on down the list.

And by "right load" we mean not only the right size and amount of shot, but the right *velocity*, the right *pattern*, the right *penetration* for the particular game. Every Remington Game Load is scientifically loaded to a *uniform standard* of velocity, pattern and penetration, all with moderate recoil.

Remington made it possible for sportsmen to buy *shotgun shells* with the same confidence they have been buying Remington rifle and pistol cartridges for over sixty years. Leaving it up to Remington to settle every detail—*including the kind or powder and the weight of powder.*

* * *

The Remington Game Load idea is the biggest forward step in shotgun ammunition since Remington produced the first successful loaded shell back in the 80's.

But the idea *alone* would not have swept from coast to coast as it has without the backing of *first and finest quality* behind it.

Remington Game loads are loaded in *Nitro Club Shells.*

They are loaded with the finest American-made smokeless powders. The finest brass bases, the finest battery cups, primers, shell bodies, wadding and shot that 108 years' experience in firearms and ammunition can produce.

They are made *Wetproof* by the patented and exclusive Remington Process. They are inspected and tested as are no other shells in the world.

* * *

Get a box of Remington Game Loads. Shoot out the facts for yourself.

REMINGTON ARMS COMPANY, Inc.
Established 1816
25 Broadway New York City

Remington

FIREARMS—AMMUNITION—CUTLERY—CASH REGISTERS



Squirrel Load

Suitable for Squirrel and Rabbit. 12, 16 and 20-gauge; No. 6 Chilled or Soft Shot.



Snipe Load

Suitable for Snipe, Rail, Plover, Woodcock, and Quail. 12, 16 and 20-gauge; No. 9 Chilled or Soft Shot.



Goose Load
Long Range Load

Suitable for Goose, Fox, Turkey and Raccoon. 12-gauge; No. 2 Chilled or Soft Shot.



Dove Load

Suitable for Dove, Quail, Rabbit, Partridge, Plover, Grouse and Woodcock. 12, 16 and 20-gauge; No. 7½ Chilled or Soft Shot.



Trap Load

12-gauge only; regulation charge of 3 drams finest smokeless powder and 1¼ ounces of No. 7½ Chilled Shot. Special wadding.

"ECONOMY" Specified Loads

TRADE MARK

Made by Remington

There are three master loads—"Economy" Light Load, "Economy" Medium Load and "Economy" Heavy Load. Each master load comes in 12, 16 and 20-gauge with chilled or soft shot of various sizes. See the table below.



Heavy Load

Remington has also developed an "Economy" Target (Trapshooting) Load for the man who wants a low priced load for practice use at the traps. 12-gauge only—loaded with 3 drams No. 2 Smokeless Powder and 1¼ oz. No. 7½ Chilled Shot.



Medium Load

"ECONOMY" Loads	Weight of Powder	Weight of Shot
12-gauge Light	3 drms.	1 ozs.
12-gauge Medium	3 "	1⅛ "
12-gauge Heavy	3¼ "	1⅛ "
16-gauge Light	2½ drms.	⅞ ozs.
16-gauge Medium	2¾ "	⅞ "
16-gauge Heavy	2¾ "	1 "
20-gauge Light	2¼ drms.	¾ ozs.
20-gauge Medium	2¼ "	⅞ "

Shot sizes supplied in all the above:
Chilled Shot—sizes 4, 5, 6, 7½ only
Soft (Drop) Shot—sizes 4, 5, 6, 7, 8 only



Light Load

A new Smokeless Shell at a lower price

THERE are many men who want a *moderately priced* smokeless shell for ordinary shooting.

Up to now they have had to buy either black powder shells, shells loaded with a mixture of black and smokeless powders, or unknown brands of "smokeless" shells of doubtful origin and shooting quality.

Remington has an obligation to these sportsmen—no less than to the men who want the very finest shells—Remington Game Loads.

So Remington has produced the "Economy" Loads.

They are loaded with genuine smokeless powder—the No. 2 Smokeless made by DuPont, Hercules and Dead Shot.

They are made *Wetproof.*

They are carefully made and carefully inspected. That is the Remington way of doing things.'

They are good, honest shells—the very best that can be produced *at the price.*

REMINGTON ARMS COMPANY, Inc.
Established 1816

25 Broadway New York City

Remington

FIREARMS—AMMUNITION—CUTLERY—CASH REGISTERS



A strip of rubber cut from a "U.S." Boot will stretch more than five times its length —without breaking

THIS TEST SHOWS

one big reason why "U.S." gives longer wear



FIVE TIMES its length! It takes real rubber to stretch like that.

But that's what a strip of rubber cut from a "U.S." boot will do.

No higher quality rubber has ever been put into a boot—and that's one of the big reasons why "U.S." boots wear longer.

It explains why they stand the constant bending and wrinkling that makes ordinary rubber crack and break—why they stay pliable and *waterproof.*

Then, too, there's layer on layer of tough fabric reinforcements built into every "U.S." boot. *Where the hardest strains come, there are as many as eleven separate layers of rubber and fabric.*

Farmers everywhere have discovered that "U.S." boots are a big economy—that they wear longer and give better service. It will pay you to ask for "U.S." and get the longest wear your money can buy.

"U.S." Walrus—

THOUSANDS of farmers have found that nothing else gives them the convenience of the "U.S." Walrus—the famous all-rubber overshoe.

Worn right over the shoe—it is slipped on or off in a second.

No need to track mud and mire into the house.

The Walrus is made with the same elastic rubber and strong reinforcements that go into the boot.

Other "U.S." Rubber Footwear

You'll find every type of rubber footwear in the big "U.S." line. There's the "U.S." lace Bootee, a rubber workshoe for fall and spring—and "U.S." Arctics and Rubbers for every member of the family. Look for the "U.S." trade mark whenever you buy.

United States Rubber Company

Trade Mark

"U.S." *Boots Walrus Arctics Rubbers*

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Ind.	Wayne Co.	Sept.	R. A.	50.2	R. Markey
"	Elkhart	"	R. H.	70.8	C. Weldy
Colo.	Mesa Co.	"	H.	73.0	F. Clymer
Mass.	N. & C. Berkshire	Aug.	G. G.	72.8	D. Galusha
Utah	Wells.-Coll. Ward.	Sept.	R. H.	63.8	J. H. Schenk
Calif.	Imperial Co.	"	G. H.	78.5	P. Maillard
Ore.	Tillamook 2	"	G. H.	61.9	L. Craven
Ill.	Kane Co. 3	"	G. H.	79.3	W. P. Schmit
"	McLean Co., D. I.	"	G. J.	61.4	D. Hastings
Minn.	Blue Earth 1	"	R. H.	86.5	W. Anderson
"	So. Dak. Co.	"	R. H.	64.0	Simon Bros.
"	So. Dodge 2	"	G. H.	45.8	S. Fjerstad
"	E. Dakota Co.	"	G. H.	58.4	J. Krech
Ohio	Summit Co. 1	"	J.	58.8	E. C. Robinson
"	Tri-County	"	R. J.	75.4	W. A. Black
Va.	Henrico	"	G. H.	75.6	F. O. Dorey
"	Southside	"	R. G.	67.3	J. S. Agnew
"	Fairfax 1	"	G. H.	78.0	M. Perkins
owa	Hancock 1	"	G. S.	59.6	E. B. Hobbs
"	Colesburg-Two Co.	"	G. J.	54.4	C. L. Funk
da.	Ada Co.	"	R. H.	78.3	A. D. Soucie
Md.	Baltimore Co.	"	R. H.	66.8	W. Whittingham
Mich.	E. Montcalm	"	R. H.	47.0	L. Thranton
"	Livingston 2	"	R. H.	74.6	M. E. McClear
"	Barry 1	"	G. H.	54.3	F. A. Smith
"	Alpena-Leer	"	G. G.	64.7	W. Christopherson
"	St. Clair 3	"	R. G.	*54.9	E. Fuller
"	Berrien Co.	"	R. S.	64.0	W. Speckine
"	Macomb 2	Aug.	R. H.	61.8	W. Manska
"	Montcalm	Sept.	R. H.	62.7	Town Bros.
"	Alpine-W. Kent	"	R. H.	68.9	J. L. Wilson
Wis.	Fountain City	"	G. J.	56.4	E. Haeuser
"	Reedsburg-La Valle	"	G. H.	49.9	Sauk Co. F'm.
"	Colfax	"	R. H.	49.3	C. C. Jensen
"	Sp. Gr.-Wyo.	"	G. G.	59.6	E. M. Hickcox
"	Farmington	"	N.	58.0	M. Kirmse

Association Notes by Testers

Elkhart Co., Ind.: Of the 272 cows tested last month, six cows produced 60 lbs. fat, 13 over 50 lbs., 31 over 40 lbs., and 93 over one pound daily. Two herds were tuberculin tested. One stable was whitewashed. Twenty-four members fed grain. Market milk sold for $2.00—3.12 per cwt. The condensery paid $2.00 per cwt. for milk and the creamery 32—40c per lb. for fat. Milk retailed for 10—12c per quart in September.—W. D. Campbell.

Mesa Co., Colo.: One member sold all his grade cows. Three herds averaged over 40 lbs. fat per cow. Market milk sold for $2.33—2.90 per cwt. and retailed for 10—12½c per quart last month.—C. H. Boyd.

Northern & Central Berkshire, Mass.: Butterfat contests have aroused much interest in the local fairs, cows in testing associations being the winners every time. One new member joined the association with a registered Guernsey herd. Market milk sold for $2.71 per cwt. and retailed for 14c per quart in August.—T. H. Weed.

Wellsville—College Ward, Utah: One new member joined this association. Sixty-eight per cent of the members feed hay and 10% grain. The condensery paid 44c per lb. for fat in September.—R. Hansen.

McLean Co. D. I., Ill.: Two members installed drinking cups in their barns. Another good sire was saved from the block through the efforts of the tester, as he was sold to another member. His dam has an association record of 506 lbs. fat.—H. R. Fletcher.

South Dakota Co., Minn.: Two more herds were tuberculin tested. One herd of 21 head came through clean and eight reactors were found in the other herd.—F. R. Lee.

Tri-County, Ohio: One milking machine was installed. Two new silos were built. One member installed individual drinking cups. The third cutting of alfalfa is being made. Several silos have been filled. Oats are all threshed and made a very good crop in this section. Market milk sold for $2.65 per cwt., 20% cream for $1 per gal. Milk retailed for 15c per quart, butter 63c per lb. in September.—E. A. Mizer.

Henrico, Va.: One member installed drinking cups, another put in an electric lighting plant. One herd had its regular tuberculin test, resulting in two reactors. One accredited herd of 85 Holsteins was sold at auction. Beginning October 1st the Virginia Dairy Co. of Richmond will take only milk from tuberculin tested herds. Market milk, Grade A, sold for $4.71 per cwt.; Grade B, $4.05 per cwt., and retailed for 18c per quart last month. All members of the association sell only fluid milk.—S. Simpson.

Southside, Va.: Three new silos were erected. Soy beans are being ensiled with the corn to a large extent. The high herd averaged 966.3 lbs. milk, 30.97 lbs. fat, making a profit of $20.90 above cost of feed. The lowest herd averaged 264 lbs. milk, 11.4 lbs. fat, profit, $7.20 above feed cost. If the owner of the lowest herd had sold milk to the creamery, he would have lost money. It is the high price of milk in this section that allows profit on such low production. Market milk sold for $3.93 per cwt. and retailed for 15c per quart. The cheese factory paid 42c per lb. for fat. Sweet cream brought 39c a lb. fat, sour cream 36c in September.—C. A. Buck.

Fairfax Co. No. 1, Va.: Ninety cows made over 40 lbs. fat, 20 over 50 lbs. last month. Silage crop is 70% less than normal. Corn will barely make a half crop. Feed prices are soaring, while milk prices remain stationary. Last month market milk sold for $3.02 per cwt., 20% cream for $1.30—1.45 per gal. Milk retailed for 14c per quart, butter 50c a lb.—C. E. Snell.

Summit Co. No. 1, Ohio: Allenhurst Farm recently purchased a herd from Texas, which includes the champion fat producer in her class in the state of Texas, also a herd sire who was a grandson of May Echo Sylvia. Market milk sold for $2.88 per cwt. and retailed for 12c per qt. last month.—L. E. Hubbard.

Hancock Co. No. 1, Ia.: One separator was found to be operating at a loss. Several members have started feeding grain rations. One new member joined the association. The creamery paid 38—43c per lb. for fat last month.—H. W. Tiggeman.

Colesburg—Two Co., Ia.: The fat average for all cows tested last month is 27.3 lbs., which is .8 lb. higher than our highest herd average a year ago. Last month the creamery paid 40c per lb. for fat.—G. H. Crawford.

Ada Co., Ida.: Two separators were found to be doing inefficient work. One member replaced his scrub bull with a pure-bred. The creamery paid 39—41c per lb. for fat last month. Milk retailed for 10—12c per quart, butter for 39—50c per lb.—T. E. Maberly.

Baltimore Co., Md.: Two stables were concreted. Two new silos are being built. Two new barns have been blue printed and work is expected to begin soon. Silos are still being filled. The corn crop is short, immature, and storm-damaged. Market milk sold for $3.02 per cwt. last month.—R. K. Mills.

East Montcalm, Mich.: Two summer silos were put up last month. One other member is putting up a silo. Two separators were tested. Filling silos is the order of the day. All members but two have silos. Last month market milk sold for $2.00 per cwt. The condensery paid $1.75 and the cheese factory $1.65 for 4% milk.—K. L. Orr.

Barry No. 1, Mich.: Nearly all cows are dry, owing to the fact that most of them freshen in the next two months. There are 19 wood and 6 tile silos in this association. The condensery paid $1.55 per cwt. for milk, the creamery 37—41c per lb. for fat in September.—W. W. Preston.

Alpena—Leer, Mich.: The 239 cows tested averaged 550 lbs. milk, 24 lbs. fat. Eighteen cows made over 40 lbs. fat. In September market milk sold for $2.25—3.00 per cwt. and retailed for 15c per quart.—O. Jennings.

St. Clair Co. No. 3, Mich.: A bull association of five members organized in July, bought and placed a pure-bred Holstein bull having a record of 846 lbs. fat to his dam's credit. Market milk sold for $3.00 per cwt. and retailed for 12c per quart in September.—H. J. Larsen.

Farmington, Wis.: The high herd of 16 Holsteins owned by Max Kirmse averaged 34 lbs. fat last month. The condensery, cheese factory, and creamery each paid 48—50c per lb. fat.—J. G. Strathearn.

McComb No. 2, Mich.: One herd was tuberculin tested and no reactors found. At the local county fair six breeders of dairy cattle exhibited stock. Five of these men are members of cow testing associations.—C. Blumer.

Alpine—West Bend, Mich.: One member installed a new Jamesway system. All show herds from here did well at the fairs. Several members attended the National Dairy Show and report a good show and a good time. All members are busy filling silos. Last month 3.5% market milk sold for $2.60 per cwt. The condensery paid $1.80 for 4% milk.—P. C. Wittenbach.

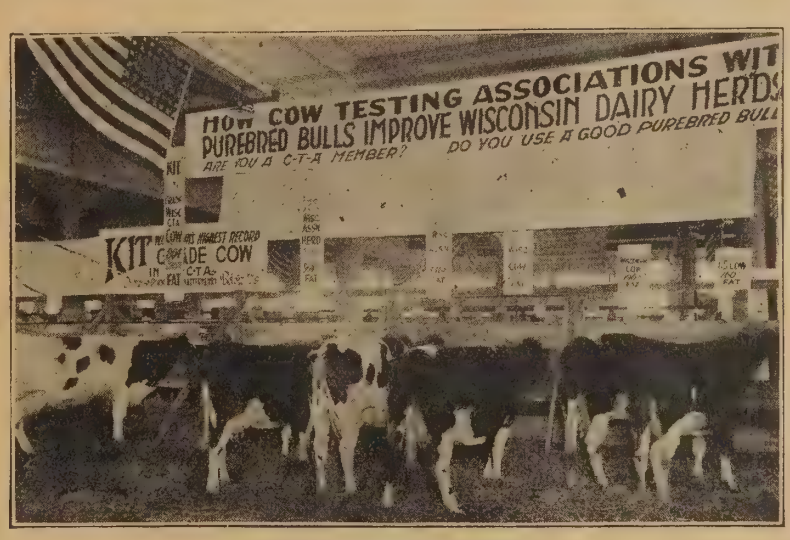
Reedsburg—LaValle, Wis.: Five herds were tested for tuberculosis. Two silos were erected on farms having one silo. One member started semi-official testing. The creamery paid 42c per lb. for fat last month. Milk retailed for 9c per quart.—D. F. Riley.

Southern Dodge Co., Minn.: During September 328 cows were tested that averaged 19.44 lbs. fat. Bloom Bros. & Bennett received credit for high herd. Their herd of 23 Guernseys, 20 milking, made an average of 28.07 lbs. fat. These cows received silage in September but not in August. In August they made an average of 25.13 lbs. fat. Three new separators and three silos have been purchased since the association started in July. A number of stave silos were blown down by the high wind a few weeks ago.—N. G. Kepner.

Six cow testing associations in Pierce County, Wisconsin, had 172 members during the year just closed. It is interesting to note that 156 pure-bred sires, and 105 farms are either accredited or under federal supervision, 167 herds are headed by pure-bred sires and 105 farms are growing alfalfa. The average production per cow for the six associations for the year was 254.4 pounds butterfat. There were 191 cows that produced over 365 pounds of butterfat for the year.

"No oleomargarine used by members" is found at the head of the list which summarizes the year's work of the Ellsworth cow testing association, Pierce County, Wisconsin.

Cow Test Exhibits at National



STEPS IN DAIRY PROGRESS

This exhibit was shown at the Cow Test Barn at the 1924 National Dairy Exposition. Cows having production of 160 to 804 lbs. fat were shown to illustrate the average production of all cows in the U. S., of all cows in Wisconsin, of all cow test cows in Wisconsin, of the best cow testing association, of the best herd, and the best grade cow in C. T. A. work in Wisconsin.



HALF SISTERS OF DAIRY TALENT

Nine daughters of one sire shown at the Cow Testing Association Exhibit Barn at the National Dairy Exposition. These cows are from the Rockwell & Katterhenry herd of the Beloit, Wis., C. T. A. They average 496.6 lbs. fat in a year.

DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were steadier following sharp declines of previous week. Trading still rather quiet as sellers asked rather high margins, although buyers were waiting for further declines. As week progressed the attitude of both changed somewhat and some business resulted.

The average wholesale prices on American cheese, style Twins, for the week ending Oct. 11, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Oct. 11 1924	Oct. 4 1924	Oct. 11 1923
	Cts.	Cts.	Cts.
New York	20.5	21.8	26.3
Chicago	18.9	19.8	25.0
Boston	21.5	22.0	27.5
San Francisco	19.2	18.6	26.1
Wisconsin Boards	19.2	20.0	24.7

The receipts of cheese at these markets were 4,883,340 lbs. for the week as compared with 3,988,332 lbs. last week and 4,783,548 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were firmer during week ending October 11. Scarcity of fancy butter was partly responsible for reaction despite sentiment for lower prices in view of heavy storage surplus and heavy current production. Exports were also a contributing factor. Approximately 7,000 tubs were shipped during the week.

The average wholesale prices on 92-score butter for the week ending Oct. 11, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Oct. 11 1924	Oct. 4 1924	Oct. 11 1923
	Cts.	Cts.	Cts.
New York	38.5	38.5	46.7
Chicago	37.5	36.5	46.2
Philadelphia	39.4	39.3	47.7
Boston	38.3	38.2	46.8
San Francisco	39.7	39.0	48.1

The receipts of butter at these markets were 13,481,952 lbs. for the week as compared with 13,289,001 lbs. for last week and 9,530,751 lbs. a year ago.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on October 1, figures being given in thousands of pounds (000 omitted):

	Oct. 1 5-yr.-av.	Oct. 1 1923	Oct. 1 1924
Butter, creamery	103,623	96,117	153,271
Cheese, American	58,677	62,384	73,087
Cheese, Swiss	4,634	5,135	8,079
Cheese, Brick	1,657	3,037	1,534
Cheese, Limburger	1,207	1,677	1,131
Cheese, all other	8,956	6,558	7,361

These holdings include stocks in both cold storage warehouses and packing house plants.

Wisconsin August Milk

The Wisconsin Department of Agriculture announces that the farmers of that state received an average of $1.61 a hundred for milk as compared with $2 a year ago, and $1.63 the previous month. Prices ranged from $1.34 in Langlade County to $2.45 in Kenosha County. These prices are the average price received for milk for all purposes, including sales to distributors, creameries, cheese factories, and condenseries.

CHICAGO, Oct. 20—Butter—Wholesale prices at Chicago: Creamery extras (92-score), 37c; extra firsts (90 to 91½), 36@36½c; firsts (88 to 89½), 31@32c; seconds (83 to 87), 29½@30c; standards (centralized, car lots, 90-score and better), 33c.

FOND DU LAC, Wis., Oct. 17—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 19½c; Twins, 19c; single Daisies, 19¼c; double Daisies, 19¼c; Longhorns, 19½c; square prints, 20½c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Oct. 18: Single Daisies, 17c. On Farmers' Call Board, Oct. 17: Single Daisies, 17⅝c; Longhorns, 18c; square prints, 18½c.

MILWAUKEE, Oct. 20—Creamery extra, tubs, 37c; standards, 34c; extra firsts, 33@33½c; firsts, 31@32c; seconds, 29@30c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 41@42c; ordinary first (standard cases), 37@38c; miscellaneous lots, shippers' cases returned, candled, 35@37c; seconds, dirties, 26@27c; checks, 25@26c.

Cheese—American full cream, Twins, 18½@19c; Young Americas, 19½@20c; Longhorns, 20@20½c; Daisies, single, 19@19½c; squares, 20@20½c; American, 32c; Pimento, 34c; Swiss 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

NEW YORK, Oct. 20—Butter—Unsettled; receipts, 5,134 pkgs.; creamery higher than extras, 38@38½c; creamery, extras (92-score), 37½c; do, firsts, (88- to 91-score), 33@37c; packing stock, current make No. 2, 27c.

Eggs—Irregular; receipts, 7,275 cases; fresh gathered extra firsts, 48@52c; do firsts, 40@47c; do seconds and poorer, 33@39c; nearby hennery whites, closely selected extras, 79@82c.

Cheese—Easy; receipts, 78,218. State whole milk flats, fresh fancy to fancy specials, 19½@21c; do average run, 18½@19c; state, whole milk flats, held, fancy to fancy specials, 20@22c; do average run 19@19½c.

Mudcura Holstein Herd Sold

The dispersion of Dr. H. P. Fischer's Mudcura Farm Holstein herd at Shakopee, Minn., Oct. 11, was very successful. The herd was in good condition, the sale was well staged, and when it was over we believe both the buyers and the seller were satisfied.

Sixty-one head sold for $24,505 with six animals going to four figure prices and the entire lot averaging $401. The good cows and herd sires were in demand at very fair prices, but yearling heifers and younger animals did not as a rule sell quite as well as at some other sales. Buyers from seven states took the cattle with the majority going to Minnesota men, although Hollyhock Farms, Wisconsin, and R. V. Rasmussen of Illinois purchased seven of the best ones.

The highest price of the sale, $2,500, was paid by Mr. Rasmussen for Duke's Mixture, a 3-year-old son of Duke Pietertje Korndyke Ormsby from that great cow, Princess Aaggie Polkadot De Kol, twice over 1,300 lbs. of butter in a year and twice over 31,000 lbs. of milk. "Princess" herself was purchased for $1,525 by F. W. A. Vesper of Missouri.

Duke Pietertje Korndyke Ormsby 31st, three-year-old show son of Duke Pietertje Korndyke Ormsby, went to Theo. Filk, Minnesota, for $1,975.

Top price for a female was $1,650 paid by Hollyhock Farms, Wisconsin, for Onyx Maid Ormsby, a very good 1,000-lb. daughter of Sir Ormsby Hengerveld Korndyke.

Mack, Scott, and Hanson did the selling with Wood in the box. The Twin City Pedigree and Service Co. managed the sale.

The following list includes those animals selling for $400 or more and buyers:

R. V. Rassmussen, Illinois	
Duke's Mixture	$2,500
Queen Concordia Mudcura Girl	600
Aaggie Mechthilde Mudcura Girl	750
Onyx Maid Mudcura Mixture	500
Oakwood Piebe Allie	1,000
Theo. Filk, Minnesota	
Duke Pietertje Korndyke Ormsby 31st	$1,975
Piebe Korndyke Clothilde 2d	425
Polkadot Rag Apple De Kol	600
F. W. A. Vesper, Missouri	
Princess Aaggie Polkadot De Kol	$1,525
Jenny Polkadot Mudcura Aaggie	760
Lady Jeslet Piebe	450
Highland Ormsby Dot	435
F. E. Murphy, Minnesota	
Princess Aaggie Polkadot De Kol 3d	$515
Queen Pietertje Aaggie Changeling	400
George C. Sherman, Minnesota	
Queen Rag Apple Mudcura Girl	$400
Pietertje Aaggie Ormsby Mercedes	400
Hollyhock Farms, Wisconsin	
Peggy Colantha Ormsby	$1,600
Onyx Maid Ormsby	1,650
Ed. H. Ulrich, Minnesota	
Female No. 20	$460

Milk Record Sheets

For years Hoard's Dairyman has been preaching the necessity of keeping records of the production of each cow. Only by knowing how much milk each cow actually gives is the dairy farmer able to improve his herd. Our Book Department has various sizes of milk record sheets to make it easy to keep tab on your cows. Complete samples with price list will be sent for 5 cents in stamps. Address Hoard's Dairyman, Fort Atkinson, Wis.

Financing Purchase of Cows

Three plans have recently been suggested by the Colorado Dairy Development Committee, of which Mr. D. W. Thomas of Denver is chairman, for successfully financing men who wish to purchase dairy cows.

These plans are as follows:

Straight Farmer-Banker Loan: Banker advances money for purchase of cows, taking farmer's note. Farmer pays what cash he can down and reduces his note by applying half of every cream check, or by paying a fixed amount per month until the cows are paid for.

A Community Plan: A revolving fund is provided by merchants and business men furnishing accommodation notes in denomination of $100 or $200, without interest, payable on demand. These notes are to be used as collateral security for a loan from the local bank.

The community selects a financial secretary and places him under bond. When the secretary collects sufficient accommodation notes for the purchase of a shipment, these notes are taken to the bank for a loan. The money is turned over to the purchasing agent to buy the cows.

The cows are purchased for specific farmers on orders given by these farmers. The farmer, upon receiving the cows, gives his note for the purchase price of the animal, plus the expense of getting the cows into his community. Only the actual cost should be charged the farmer. This is not a money making scheme.

The farmer pays part cash down if he can but is required to apply half of every cream check to repay his note. As the farmer's notes are taken up the collateral accommodation notes are returned to the financial secretary who collects enough notes to secure another loan from the bank for another shipment. The process is thus repeated.

A Loan Association Plan: Local people organize a dairy company with authorized capital of $10,000 and $2,500 of this capital is actually paid in and invested in U. S. Certificates of Indebtedness or U. S. Liberty Bonds. This investment is pledged as security to a loan with a live stock loan company up to $20,000. The local dairy company should require a down payment upon each animal, particularly if dairy stock does not freshen within four or five months of purchase. A payment of half of each cream check should be required to reduce the loan after the second full month after purchase or production. In lieu of half the cream check, arrangements should be made for monthly payments approximating that amount.

The indebtedness to the Live Stock Loan Company should be secured by a chattel mortgage upon the dairy cattle, together with a contract, or copy of the contract of sale from local dairy company to the individual farmer.

The title to the dairy animal remains with the local dairy company until the dairy stock is paid for by each individual. The local dairy company is thus protected without undue delay and legal difficulty by being in a position to take back from any farmer, who fails to make his payments or properly care for the stock, the dairy stock which he has and enables the dairy company to dispose of the animals to someone else who can and will care for them properly. The rate of interest to the dairyman should not exceed eight per cent.—H. R. LASCELLES, Fieldman for the Colorado Dairy Commissioner.



MOVABLE FENCES HELPFUL TO THE FARMER

Where a farmer might want to change feeding grounds for small numbers of animals or where a few animals might be kept in certain advantageous places for observation a movable fence would be of value. In this fence wire fencing is used and sections of cast iron pipe form the fence posts. Near the top and bottom the iron posts eyes are placed and through them a metal rod is inserted which serves to hold the wire netting in place. By using the cast iron piping it is possible to remove them and replace in desired positions with the minimum of trouble for no digging holes for posts is required. A few blows from a mallet or sledge would drive the piping a sufficient distance into the ground for stability.—ALLEN P. CHILD.

Carload Prices of Hay, Straw, and Feed, Oct. 11, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	27 50	27.00	....	21.50	19.50	29.50	26 00	24 00	19 00	24 00	20 .00	24.50	....	17 00	
No. 1 Clover, mixed	20.50	....	....	19.50	16.50	.....	....	....	17 50	.....	18.00			15 00	....
No. 1 Clover	.....	.....	....	19.50	.....				19.00	15.50	...	20 50	.....	16.50	...
No. 1 Alfalfa	....	28 50	.....	.....		34 50	29 00	29 00	28 00	22 .00	24 .00	30.00	.....	21 00	27 00
Standard Alfalfa		25.50		.....		25 .00	27 .00	26 50	.	18 00	21 00	.....	.....	19 75	26 00
No. 2 Alfalfa	...	25.00	.....	.....	.....	23.50	25 .00	24 .00	25 00	16 50	16 50	.....	.....	17 50	25.00
Oat Straw	13.00	14.50	14.00	12.50	13.50	....	.....	.....	10.00	9.50	8.50	.....	.....	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	32 50	.....	33 00	31 .00	31.50	34.50	.....	.....	30.50	27.50	25.50	.....			.....
Soft Winter	35 50	.....	35 .00	32 00	34 00	35 00	.....	.....	31 00	.....	.....	27.50	24 .00	....	39.00
Hard Winter	34 25	....	34 .00	31 .50	...	34 .50	.....	28 50	30.50	... .		27 .00	24 .00	34 50	.....
Wheat Middlings		....							.....	.....	.....		.....	.....	.. ..
Spring (Standard)	34 50	....	34 50	33 00	33.50	39 .00	.....	.....	33 .00	30.00	27.50	.....	.....	.....	.....
Soft Winter	41.50	.....	41 00	37 00	34 .00	42 .00		.....	37 .00	.....	.....	.....	31 .00	.....	46.00
Hard Winter	.....	.....	...	38 .00	.....	38 .00	.....	.....	37 .00	.....	.....	34 .00	31 .00	.....	.....
Wheat Millrun	35.25	.....	35.00	.	.....	37 00	.....	.....	.....		29 .00		27 .00	37 .00	38.00
Rye Middlings	.....	.....	.....	32 00	....		.....	.....	.....	.....	26 00		.....	.....	.....
High Protein Meals															
Linseed	53 00		52 25	50 00	.....	.....			49.50	47 00	46 50	49.50	52.25	.....	.....
Cottonseed (41%)	50.50	....	49.50	47.75	.....	.....	.....	40 50	45.00	46 50	47.50	44 .00	. .	42.00	.....
Cottonseed (36%)	46 50	....	45.50	43.75	.....	38.00	....	36 75	42.00	42 50	43 25	41 .00	.....	.....	.....
Tankage (60%)	....	.....	.....	.....		.....	.....	.....	.....	60 .00	60 .00	60 00	60 00	.....	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	34 .00	.....	.....	28 50	28 50	27 .50	.....	26 50	23.50	33.00	.....
Gluten feed	47 95	....	47 .00	44 .70	46 50	.....	.....	.....	43 .70	40 80	43 .90	.....	.....	.....	.....
Hominy feed (white)	45 25	....	45 .25	....	46 .00	50 00	.....	.....	41 00	40 00	.	39 .00	.....	.....	.....
Hominy feed (yellow)	44 50	.....	44 .25	....	45 .00	50 00	.....	.....	41 .00	39 00	37 50	.....	.....	..	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43 .00	.....	44 50	.....	.....	.....	52.00
Dried Beet pulp	39.50	....	39.25	37 30	39 .00	.....	.....	.....	.....	.....	33 .00	.....	.....	.....	37.00

Marlow and Randall Sell Their Holsteins

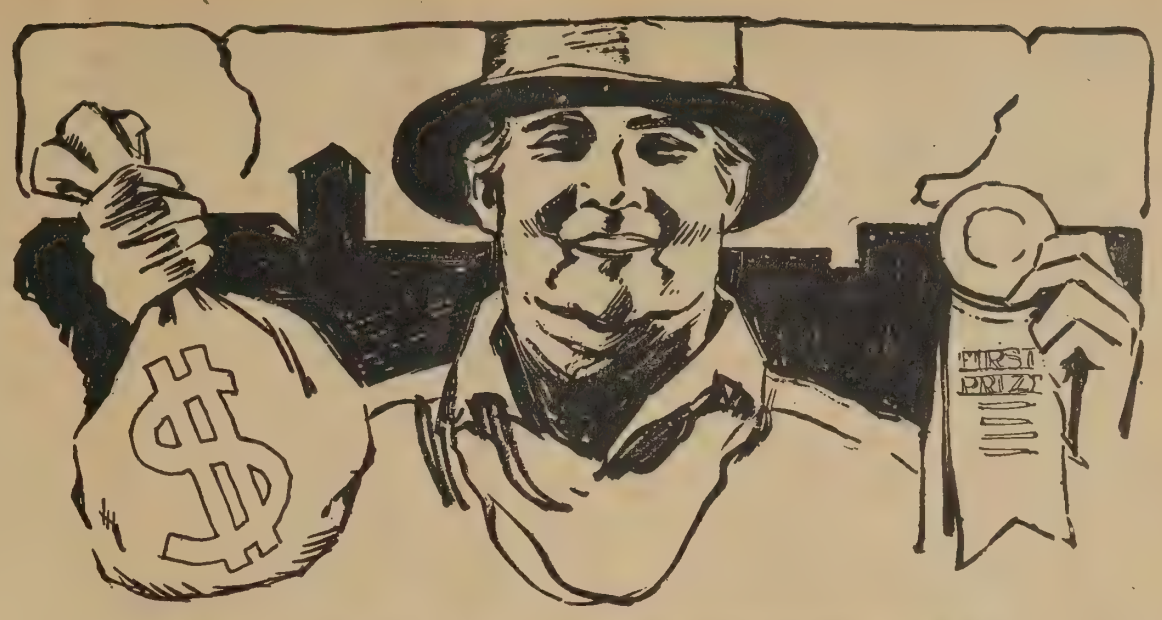
The Mankato Holstein Co. herd of 95 head was sold October 8 and 9 at Mankato, Minn., for $25,440, an average of $270 with $1,025 the top figure. F. E. Murphy of Minnesota paid this for a junior herd sire, Mankato Floa Ormsby Korndyke Lad, a son of Mankato Floa Ormsby Mercedes, 1,051-lb. two-year-old daughter of S. P. O. M. 14th. Top price for a female was $1,000 for Ruby Karen Mercedes, also purchased by Mr. Murphy. He bought her 30-lb., 956-lb. daughter for a like sum.

The better animals of the milking herd were in this instance less appreciated by buyers than were the yearling heifers that sold readily for $150 to $250 and even higher in several instances.

Mack, Hanson, Krause, Scott, & Wood did the selling and the Twin City Pedigree & Service Co. managed the sale.

The following list includes those animals selling for $250 or more and buyers:

F. E. Murphy, Minnesota	
Mankato Floa Ormsby Korndyke Lad	$1,025
Ruby Karen Mercedes	1,000
Ruby Karen Mercedes Ormsby	1,000
Miss Pietertje Burk	425
Mankato Floa Ormsby Mercedes 2d	410
Cornucopia Corona 2d	325
Mankato Corona Ormsby	310
Mankato O. K. L. Olathe	280
Mankato O. K. L. Feronia	300
Sir Rhoda Kentucky Segis	330
E. A. Barthelemy, Minnesota	
Mankato Ruby Karen Mercedes	$500
Mankato Floa Ormsby Mercedes	700
Mankato Lassie Ormsby 2d	275
Mankato O. K. L. Blanche	475
Mankato Ruby Mercedes	360
Geo. F. Hanney, Minnesota	
Mankato Ormsby Pet	$415
Mankato Miss Ormsby	415
Geo. W. Edmonds, South Dakota	
Mankato Ruby Marathon Ormsby 19th	$500
Arthur C. Rosen, Minnesota	
Mankato Ormsby Mercedes Lad	$350
L. P. Emmerick, Virginia	
Bess Ormsby Maid	$500
H. L. Sohre, Minnesota	
Belle Pietertje Mercedes Ormsby	$410
A. T. McLennan, Wisconsin	
Snooks Nig De Kol	$300
J. M. Breman, Minnesota	
No. 30—Male	$295
Detroit Creamery Co., Michigan	
Mankato Segis Ormsby Bess	$750
M. Sandeen & Sons, Minnesota	
Mankato Ruby Marathon Ormsby 18th	$435
St. Olaf College, Minnesota	
Mankato O. K. L. Blanche 2d	$300
Mankato Ruby Ormsby Pauline	230
Edw. & Emil Youngbloom, Wisconsin	
Mankato O. K. L. Lilith	$250
J. J. Rosenair, Minnesota	
Mankato O. K. L. Lizzie	$370
Ernest Paul, Minnesota	
Mankato Ruby Ormsby Burke	$400
O. N. Nelson & Son, Minnesota	
Mankato Ormsby Mabel	$255
Ernest Soyler, Minnesota	
Mankato Ormsby Jean	$260
G. A. McCargan, Minnesota	
No. 68—Male	$255
W. A. Beeder, Minnesota	
Christgau Korndyke De Kol	$330
Fred C. Steele, Minnesota	
Queen Homeland De Colantha	$295
H. E. Lippman, Minnesota	
Viola Aaggie Cornucopia Segis	$250
Pitch & Paul, Minnesota	
Minnehaha Sir Pietertje Ormsby	$525



PROFITS! RECORDS!

From Grade Cows or Pure-breds

It's a feather in the cap of any dairyman to own a champion cow in any breed or class. But no dairyman can afford at any time to take his eyes off profits. When all is said and done, the value of a dairy cow depends on her ability to earn money for her owner.

Right feeding is the biggest single factor in this business of getting from a cow all that she is capable of producing.

To make money from milk you must use a feed that builds and maintains health and condition—that brings cows quickly to peak production and keeps them there.

Larro does this. Larro has many splendid milk records to its credit; but it is more significant that dairymen who use Larro consistently also produce milk profitably. This can be done with grade cows or pure-breds alike.

There is a grade cow on the Larro Research Farm that in two years increased her milk yield from 5,851.2 lbs. to 13,157.1 lbs. for corresponding 270-day periods. There is another grade cow in the same herd that produced 13,646.4 lbs. milk the past year—yielding 3.2 lbs. of milk for every lb. of grain she ate.

Take Sadie, champion grade cow of the South, who produced 23,245 lbs. milk and 1,144.9 lbs. butter in a year. She is Larro-fed. Or, among pure-breds, the Meadowbrook herd of Jerseys at Jeanette, Pa.—a herd of 50 cows fed no grain but Larro—which holds 45 Register of Merit records and is lead by Prince's Rose of Meadowbrook, with14,292 lbs. milk and 639.5 lbs. of butter fat—a state record.

Production like that is profitable—whether it comes from grade cows or pure-breds—whether the cow ever sets a record or not.

You are milking cows to make money. They'll make the most money on Larro.

Order now from your nearest dealer.

THE LARROWE MILLING COMPANY, DETROIT, MICH.

Larro

THE SAFE RATION FOR DAIRY COWS (530)

THE LARROWE MILLING CO. DETROIT, MICH. U.S.A. Larro

Diplomas Recognizing Owners of 300-pound Herds

HOARD'S DAIRYMAN:—The day set for the distribution of diplomas to those who had promised to come and receive them at the recent National Dairy Exposition held in Milwaukee, Wis., came up very cold and tremendously disagreeable to those who were congregated in an unheated room on the state fair ground, so that everyone seemed more anxious to get out in the air where it was less cold than be housed up and chilled. The meeting as originally planned, to be presided over by Ex-Gov. Frank O. Lowden of Illinois as a conference of dairy cattlemen, was hurriedly conducted and very few gathered after the noon recess for the purpose of distribution of the diplomas. However, those who came received theirs and many called at the secretary's office on the ground during the period of the show to receive their diplomas.

The diplomas were all made out in line with the information received from the cow testers from various parts of the country, and while the whole thing was founded upon the desire to have the men who own cattle that have been brought up to this degree of production present to receive their diplomas at the National Dairy Exposition, yet this year they will be sent on to the cow testers reporting those entitled to the award. Hereafter the strict letter of the law will be followed—that the owners of herds developed to 300 pounds butterfat production shall personally call for their diplomas some time during the exposition each year.

The cow test association exhibit at this year's National Dairy Exposition was the greatest message ever put out on the value of cow test association work but the unfortunate part of the whole exposition was that so few of those who needed an object lesson of this kind came under the inspiration of the exhibit. However, everything that our organization can do to further the splendid work that the cow test associations are nationally doing will be done.

W. E. SKINNER, Mgr.,
National Dairy Show.

Australian Kangaroo Brand

A national brand for Australian butter and cheese has been adopted by the Australian Dairy Council. It has also been decided upon a reduction of the fat standard for butter exported to countries which do not maintain a fat standard of over 80 per cent. The brand adopted is the word "Kangaroo", which will be applied to all butter graded at 92 per cent or over, which is the product of pasteurized cream, and to all cheese grading 32 points or over. "During the past few weeks only has the output been below the home consumption requirements," states Assistant Trade Commissioner Elmer G. Brady in a report to the Department of Commerce.

A deputation representative of the butter industry waited upon the Prime Minister to protest against the proposed scheme of butter stabilization and price fixing. They wish the government to consider the advisability of granting bonuses on butter and cheese, and a reduction of export freights, as well as the matter of exchange between Australia and London.

POULTRY On The DAIRY FARM



J. B. HAYES

The Medicine Cabinet

There are more brands of sure-fire, never-miss cure-alls on the market for poultry than for all the rest of a farm's inhabitants. A hen seems like such an unassuming, unknown proposition that the owner likes to pour a new material into her, whenever the opportunity arises, just to see what the result will be.

The information concerning poultry diseases which he possesses is often limited and every ailment or sudden death is sure to be serious. The first effort in eradicating the trouble is always from a muchly scented box of some mixture. In many cases, the results are satisfactory and the treatment is lauded. In fact, that single instance is very likely to remain in his mind for all time and prompt a repetition in the next case.

In about one-half the cases where sudden deaths occur in the flock, no medicinal treatment would have been satisfactory. The cases of hemorrhage are not rare and usually occur in a flock during a period of heavy production. In the other half of the cases the wrong treatment is generally administered.

Most of the medicines that are really required for a flock are relatively simple in nature and application. If one can have on hand some castor oil, Epsom salts, and permanganate of potash, the principal needs are filled.

In doctoring a hen, a pretty safe rule to follow is—when in doubt give castor oil. That is probably an unnecessary statement to make for we all know from experience that the active poultry caretakers gave us all more than we thought was our share.

One of the noted poultrymen has made the statement that the hen carries her health certificate in her head. The first indication of intestinal or digestive disturbance is noted by a darker color to the comb. When an individual is found with a purple comb and a slight diarrohea it does not necessarily mean that cholera is present but may be any one of a multitude of other things that are directly responsible.

When hens appear listless, inactive, and even die, it is not a positive sign that some serious outbreak of disease is manifest. Eating decomposed flesh, access to lead paint, drinking stagnant, contaminated water, or other similar cases may cause that condition.

In every instance such as this, one should administer castor oil to the individuals and Epsom salts to the flock. About one teaspoonful of castor oil is the correct amount. If the fowl is held securely and the oil slowly given, no struggling or choking will result.

Epsom salts for the entire flock acts as a mild physic that will alleviate the lesser complaints. This material can be given at the rate of one pound to one hundred adult fowls, and proportionately for younger birds, either in the drinking water or mixed with a moist mash. As a general toning up process the salts will be found very satisfactory.

Even during the winter months when flocks are closely confined, the salts may be given at regular intervals every month. This seems to be especially true when the green feed allowed them is rather limited but may be given under any conditions.

At about the time that the cold, fall rains become a regular weekly event, one can expect to find colds, roup, chicken pox, and canker developing at the same rate. Part of this trouble is due to lack of vitality in immature stock, partly to allowing them to roost out in exposed places after they should have been housed, partly to lack of sufficient ventilation in the poultry house, and great deal to overcrowding in the chick brooding house that cannot adequately accommodate them.

In all cases the cause should be found and corrected before attempting medicinal treatment. An even safer rule to follow is elimination by getting the stock into clean, well ventilated quarters earlier in the season.

About fifteen cents' worth of permanganate of potash should be purchased at the drug store. This material is a purple crystal that dissolves readily in water. Place this amount in a bottle, add enough water to dissolve, and keep on hand as a saturated or stock solution. In other words, all of the material is held in solution that the water can carry.

Each day add enough of this to the drinking water to give a pink or wine color. In cases of severe outbreak, this material will not be a cure but no other could do that either. It will, however, act as a partial disinfectant in preventing the spread from one fowl to another through the drinking water. The continued use of it will not cause any harm but it is not needed except when a cold is noted. If the affected individual is a weak, small, late hatched bird, kill her and give the rest of the flock a chance.



BARRED PLYMOUTH ROCK HENS AND NEW PURDUE TYPE POULTRY HOUSE ON HERBERT DAVIS FORESTRY FARM, INDIANA

Ailing Turkeys

Please tell me what I can feed my turkeys; they are half grown and then get sick. We feed them milk and cheese and wheat.

Dowagiac, Mich F. F.

It is probably not a question of what the turkeys are being fed so much as the condition which is responsible for the loss. Instead of giving a ration the responsibility, there are a number of things that might be the cause of this condition. In the first place, the turkeys may be affected by lice, and although one is always sure that such is not the case, they can be present in large numbers and result in lowering the vitality of the young stock.

If the housing conditions are not proper, that is, not well ventilated or infested with mites, this, too, can be responsible for the loss.

Turkeys should also eat an abundance of green feed. If they are allowed to range with the chickens, they are probably running on contaminated soil, are not being fed the way that they should and the overfeeding that results from this can kill them. We find that more turkeys are lost through overfeeding than through underfeeding. If they have access to a grain field, it means that they are getting more than their share of feed without sufficient exercise. If corn is reaching somewhere near a stage of maturity, this is also one of the things that causes a heavy loss in them. I should advise you to continue with the same ration which you are giving and in addition give an abundance of green feed, house them properly at night, and if the condition doesn't correct itself, have one of the birds sent in for the disease.

Sanitary Measures

Cleaning the poultry house at this time of the year before placing the stock in winter quarters will eliminate most of the common poultry diseases. A dirty, dark house tends to lower the vitality of the fowls and makes them more susceptible to disease. The value of the individual in poultry is so relatively low that measures to prevent disease must be followed rather than treatment after the epidemic appears.

The most practical, economical, and satisfactory method is to whitewash the house. An application of whitewash tends to make the interior of the house lighter, destroys parasites, and disinfects the house. There are several different methods of preparing the solution. The following has been found to be satisfactory: Slake quick lime with enough water to make a thick paste. While slacking add a pint of melted lard or other grease and a cupful of salt to a bushel of lime. Add enough water to bring the solution to the consistency of thin cream and strain through a piece of burlap. It is also advisable to add 4 ounces of crude carbolic acid or some coal tar disinfectant to every gallon of the solution.

Before applying the whitewash it is necessary to clean the house thoroughly, remove the furnishings, and clean the floor. The addition of air slaked lime to the floor, dropping boards, and ground immediately surrounding the building is advisable. Using dry road dust, ashes, or lime on the dropping boards after each cleaning during the winter will increase the ease of removing the droppings.

Who Said They Didn't Pay?

Away up in the woods of northern Wisconsin, located back on a road that even a county agent's car couldn't travel, is a little settlement of farmers. They are trying to make crops replace stumps and every form of agriculture is followed. The equipment which they have at their disposal is crude and simple as some of them are still living in log houses. They have found that poultry plays an important part in giving them a cash crop each month through the sale of eggs at the nearest market.

When the county agent, through the local papers, told that a number of culling demonstrations would be given in that section they immediately asked for a meeting. One of the more progressive persons had taken a crate of hens to the market but upon hearing that the agent would be out in a few days had hauled them back home to be sure that the poor producers were sold.

Mr. and Mrs. Peterson submitted a record of the profit that they made from their flock of 48 Barred Plymouth Rocks. The record follows:

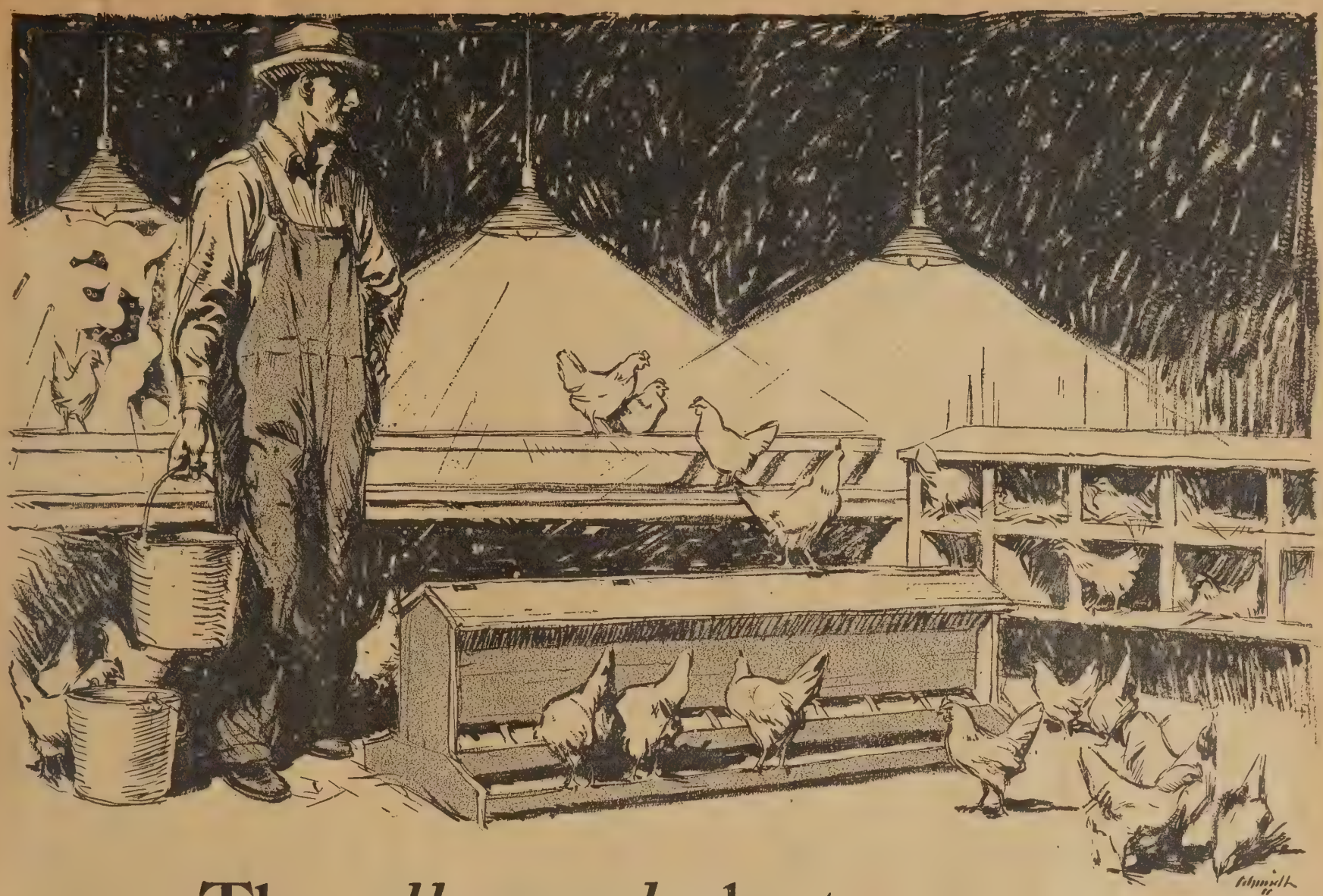
Month	No. eggs produced	Cost of feed
January	383	$ 2.20
February	636	10.35
March	762	8.17
April	1095	11.87
May	1144	8.75
June	929	13.40
July	759	3.98
August	824	2.78
September	274	7.80
October	182	
November	51	6.15
December	28	7.80

Total 7,047 eggs. Average production 146.8 eggs per hen.
Cost of feed per hen $1.75.
Value of eggs $5.68.
Return over feed per hen $3.95.

The hens were fed one of the regular home mixed mash feeds of ground feed, bran, middlings, and meat scrap when milk was not available. The scratch feed consisted of cracked corn, wheat, and barley. All grain and mash fed directly to the flock was charged against them and the sale of broilers, roasters, and surplus young stock would offset the charges on grain picked up around the farm that would have been wasted.

Housing facilities were very ordinary except that all the essentials of proper lighting, ventilation, dryness, and prevention against sudden changes in temperature were embodied. They did not use artificial light last season but planned in increasing the size of the flock and possibly using gasoline lanterns for a few winter months. It was not the equipment that assured them of success but they had a laying strain of Barred Rocks that were properly managed, fed, and handled. Any other farmer or city lot poultry keeper can duplicate this record with attention to the little details.

The average production of 146.8 eggs per hen is not phenomenal but is double the average of 70 eggs per year set by the American hen. The higher the average production the lower the cost of production. This is a second reason for their success and is a cause that is often overlooked. Cull the flock to select the breeders, breed from a high production bred male bird, and discard slow developing, immature, late hatched pullets in the fall. This system is followed by that group of farmers and eggs are growing on cut over land along with the other farm crops.



The *all-round* plant for every electrical job

EGGS may be just a side line with you. But even so, making money is never a side line; and you naturally want your flock to pay you maximum dividends.

Then electricity can help you. Electrically lighted poultry houses are a proved, profitable investment. And many a man has found that *direct returns in more eggs* will pay for an electric plant.

Some of the most enthusiastic owners of Kohler Automatic Power and Light Plants use electricity to increase poultry profits. These owners especially admire the Kohler Automatic's ability to deliver ample current for this purpose *almost without extra expense*, simply as part of its big job of providing for every electrical need of the modern farm.

This all-round plant can do more work because it *does not need storage batteries* (except a small starting battery); because its full rated capacity is always on tap; and because it delivers current direct from the generator, without waste.

The current is 110-volt. That insures brilliant light; permits wiring distant, scattered buildings; and operates standard appliances.

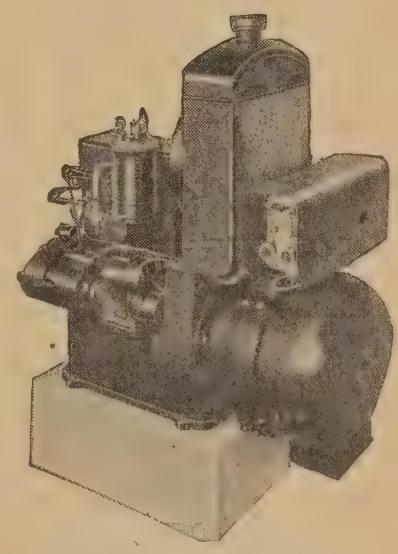
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[Signed] *LaRue Brown,*
Arbor Farm, Davey, Nebraska



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STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

For Sale—At "The Big Farm", Rosendale, Wisconsin, high grade and pure bred Holsteins by the carload. Also will help any buyer to select anything in dairy line in either Holsteins or Guernseys. JOHN MURPHY and JOHN FARRELL, Rosendale, Wis. (Formerly of Mukwonago, Wis.) 5-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

Holstein Springers and heifers, car lots or less, priced reasonable. EDW. YOHN, Watertown, Wisconsin. 12-5

Holstein Herd Sires for sale or will trade for either grade or pure bred federally tested females. No. 1 North Star Gift Champion, a 4 year old son of Johanna Bonheur Champion. Dam, the great 1,000 lb. cow, Little Gift of Spring Valley. No. 2, King Fayne Star Pontiac Segis, a 4 year old son of King Segis Pontiac Count. Dam, Johanna Fayne Star, 31 lb. daughter of Sir Johanna Fayne. Come and see them or write WALCOWIS FARMS, Lake Geneva, Wis. 12-*

For Sale—Carload Holstein heifers, JOS. BOSAK, Frederick, Wisconsin. 14-2

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

Herd Bull for Sale—Sir Pontiac Echo imported from Canada. 75% same blood $106,000.00 bull "Carnation King Sylvia," sell one third cost. DWAYNE WHITE, Elkader, Iowa. 15-2

Registered Holstein Bull, Ormsby Breeding, 10 months old, ¾ black. Good, straight individual. Federal test. Health guaranteed. $65.00 at farm. SMITH & YOUNG, Union Grove, Wis.

1,000 lb. yearly record two year old bull for sale. Prilly breeding, sires nearly all heifers and straight rumps. Retest. Price $500.00. O. WESTERHEIDE, New Douglas, Ill. 15-*

Registered Holstein herd sire for sale. Burwood Segis Pontiac, three years, richly bred. Price for quick sale. LOUIS HESS, Route 1, South Milwaukee, Wisconsin.

Registered Holstein yearling bull 29 lb. dam, 34 lb. sire. Price $150.00. Heifer calves $35.00. ERNEST SEDGWICK, Greenup, Illinois.

A few serviceable and near serviceable registered Holstein bulls. Also all classes of females. MARINETTE COUNTY ASYLUM, Peshtigo, Wis. 15-4

50 highly bred grade and pure bred Holstein cows, heifers and calves, by registered bulls. J. RANKIN PAUL, Washington Court House, Ohio.

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINELLO FARMS, Thiensville, Wis. 23-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Have 25 high grade Guernsey heifers, 10 yearlings and 15 two year olds. Will take $50.00 per head for entire herd. JOHN PETERSON, Waupaca, Wis. 14-*

Price List twenty Guernsey females. Real bargains. Bull calf, fifteen May Rose crosses, seventy-five dollars. GLENGERNSY HERD, Long Prairie, Minn. 14-2

Two Serviceable Guernsey Bulls for sale. Dams have over 500 lbs. fat. Six bulls 6 months old. Dams and grandams average 607 lbs. fat. Sale list. HOMER RUNDELL, Livingston, Wis. 9-Spl

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey Bull Calves. A. R. breeding. Forty dollars up. B. McADAM, Mosinee, Wis. 15-spl

To Make Room for winter will sell 15 Registered cows and heifers, some with A. R. records. Also a few young bulls of serviceable age. Price reasonable. Send for lists. VERNDALE GUERNSEY FARM, Burlington, No. Dak.

10 Registered Guernsey cows and heifers from 2 to 7 years old. J. N. McLEOD, Platteville, Wis. 15-3

Guernseys—My herd of heavy producing Guernseys. 6 registered cows, 9 high grade cows, extra good herd sire. Price $2,300 for herd. T. B. tested, a good, clean herd. C. J. FRIES, Ogdensburg, Wisconsin.

STOCK WANTED

Guernseys: Ten fresh or springers, with cow testing records, must be guaranteed free tuberculosis and abortion and priced right for cash. J. HOWARD CLIFFE, Ivyland, Pennsylvania. 12-*

Wanted—Guernsey cows on shares or time payments. Can handle 12 or 15 head. Address BOX 324, Care Hoard's Dairyman. 15-2

Wanted—High grade Guernsey cows from accredited herds with association records. If you have one or ten for sale, write me full description, giving age, milk records, fat test, price and freshening dates. CONNELLY, 920 Monroe Building, Chicago.

STOCK BUYER

Save 30% on Guernseys and Holsteins. Not in the trust. J. D. POWERS, Fort Atkinson, Wis. 17*

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

POULTRY

Single Comb Reds—Cockerels from Harrison nonbroody 300 egg strain $10.00. Also Persian kittens, black, $15.00. ANNA GEHL, LOMIRA, WIS.

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie, Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Alfalfa Hay—For sale. Choice pea green second and third cutting. Weights and grades guaranteed. Write for delivered prices. ALBERT MILLER & CO., 192, No. Clark St., Chicago, Illinois. 12-*

Baled Hay and straw for sale. Let us quote you. Prompt service. FRED SEEHAFER & SON, Marshfield, Wis. 13-5

Hay For Sale—Timothy or clover mixed. Will buy fine marsh hay and straw. GEO. L. FREDERICK, Beaver Dam, Wisconsin. 15-2

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

Feed Powdered Limestone. High grade Waukesha Limestone. Ground to the fineness of flour, especially for feeding. Send $1.00 for two trial sacks. WAUKESHA LIME & STONE COMPANY, Waukesha, Wisconsin. 15-spl

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Burbanks hullless and beardless Pearl barley 60 lbs. per bushel. Tests 62. Price $3.00 per bushel. ART FRYSLIE, Flasher, No. Dak.

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Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50; smoking, 5 lbs., $1.25; ten, $2.00. Pay when received; pipe and recipe free. FARMERS UNION, Paducah, Ky. 13-4

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; smoking, five pounds, $1.25; ten, $2.00; pipe free. Pay when received. Tobacco guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 14-4

MACHINERY

Want to Buy a hay bailing press in good condition. Give name, make, model, and year, with price in first letter. BOX 206, care Hoard's Dairyman. 8-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—Empire milking machine, line shaft and cream separator, cheap. "THE EVERGREENS", Emerald, Wisconsin.

SALES MANAGER WANTED

Sales Director for state or part of state to appoint local agent for Page Milker. Must travel personally and train agents. Exceptional opportunity for energetic man experienced in selling direct to farmers. BURTON PAGE CO., 1205 Cortland St., Dept. A, Chicago, Ill.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

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Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

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Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 617-1st Ave. No., Minneapolis. 12-19

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Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Quality Hounds Cheap. Trial C. O. D. BECKS KENNELS, H. D., Patoka, Illinois. 14-2

Hundred hunting hounds cheap. Trial C. O. D. Catalogue. BECKENNELS, Herrick, Ill. 14-4

FARMS FOR SALE

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

200 Acre stock and sheep farm, well improved and equipped, good buildings; 3 miles to town and Mille Lacs Lake; $75.00 per acre, your own terms. FIRST NATIONAL BANK, Milaca, Minn. 12-4

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

240 Acre stock and grain farm. Good soil, well improved, located in Central Minnesota. Only $60.00 per acre. $1,000 cash. Balance on time at three per cent. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, Saint Paul, Minnesota. 13-4

960 acres suitable for dairying, year around grazing adapted for clover and alfalfa. Good location near creamery and has railroad siding on place. Sacrificing at twenty dollars per acre. S. THEODORE MARSH, Saluda, S. C. 14-2

162 acre model dairy farm equipped; 24½ acre fruit and chicken farm; 3 acre truck farm. All modern improvements in city of Columbus. Will sell at sacrifice considering quality. ELMER HURELLE, Columbus, Wisconsin. 14-2

For Sale—460 acres; 40 miles from Chicago. Farm consists of 200 acres of fertile, heavy producing, black soil, under high state of cultivation. 260 acres Blue Grass and Oak Timber. 2 modern dwellings; 2 other good dwellings; 2 concrete silos; barn and other outbuildings erected in 1922. Full equipment of new farm utensils. Ideal plant for feeding and dairying. You would have to see this farm to appreciate its value. R. W. COOPER, Owner, Gilberts, Ill. 15-spl.

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

Beautiful Modern Farm Home only $4,300; 17 cattle and horses, hogs, poultry, fine lot new machinery, vehicles included; heavy producer on improved road close fine town; 175 acres, dark loamy fields, 35 cow spring watered wire fenced pasture, est. 1,000 cds. wood, 75,000 ft. timber, sugar and fruit orchards; excellent 7 room house with bath, hardwood floors, large basement barn, garage. Owner cannot operate, $4,300 takes it, less than half cash. Details pg. 25 New Illus. Catalog, 152 pages money making farm bargains. Free. STROUT FARM AGENCY, 150DL Nassau St, New York City.

Land Bargain—320 acre farm, 185 under cultivation, fair buildings, all fenced, spring water, good pasture and timber, ideal stock or dairy farm, close to school on public road, one mile from state highway. In center of good dairy and hog section. Will sell cheap as owner got it back for mortgage and can't handle it. Title guaranteed, no commissions to pay, only small cash payment required and balance on good terms. If interested address BOX G, Rushford, Minn.

FOR RENT

For Rent on Shares—Dairy and sheep farm near Elgin, Illinois. Contains 210 acres plow land, 130 acres fair pasture. All fenced for sheep. Owners have and will furnish 35 or more cows and a new Pine Tree Milker. They will arrange for a supply of sheep for joint ownership. Buildings are in good repair, two houses, two large barns, large hog or sheep house, corncrib cement silo, cement water supply tank with running water to the houses and buildings. One half mile to the Bowman Dairy milk bottling plant where the milk is now sold. One-half mile to the Grant Highway cemented from Chicago to Freeport, Illinois. 15 acres now in alfalfa and 30 in sweet clover. Owners desire to increase the alfalfa to 50 acres. Possession can be had March first, some arrangement for earlier possession might be made. Give references. Address BOX 320, Care Hoard's Dairyman. 14-*

For Sale and Rent—I am offering for sale my entire dairy herd of choice tuberculin tested cattle consisting of 40 Holstein and Guernsey cows, one registered Holstein bull, one registered Guernsey bull, also horses, farm machinery, dairy equipment and well established dairy route for entire output included, free to purchaser. Will rent my farm consisting of 160 acres and complete set of buildings including light, water and telephone. Located one quarter mile west of city limits. F. H. VANDENBOOM, Marquette, Michigan. 14-2

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

Fort Rent—Dairy farm, 432 acres. Located at city limits, Beloit, Wisconsin. DON VAN WART, Agent, Beloit, Wis. 15-3

FARMS WANTED

Want southern or central Wisconsin farm of from 120 to 360 acres with stock. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

WANTED TO RENT

Wanted to Rent, equipped 120 acre farm with 15 producing cows. Shares. References furnished. Capable, life experience with Holsteins. M. J. WEERSING, Bozeman, Montana.

PARTNER WANTED

Want experienced and successful dairyman farmer as sharing partner in large dairy ranch, registered Ayrshires, first class buildings, running water, alfalfa, located on good highway near two railways. Partner should be able to invest to the value of half the equipment, but this is not absolutely necessary if right man is found. References required. R. D. GEORGE, Boulder, Colorado. 15-3



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HELP WANTED

State Civil Service Examinations. Assembled and written. October 25,, Stenographer and typist. November 15. Midshipman from state-at-large. November 22, Legislative positions, clerk-filing and statistics, cheese factory inspector, creamery and dairy inspector, proof reader, and state sealer of weights and measures. Unassembled and written: Market milk specialist. Unwritten: Assistant engineer, family officer and matron, family officer and teacher, fireman, guard, matron-cottage and supervising, skilled trades, teacher, teacher guard, and telephone operator. For application blank and detailed information address STATE CIVIL SERVICE COMMISSION, Madison, Wis. 14-2

Wanted Immediately, reliable farm hand, good with horses and cattle. ROBERT GODFREY, R. 5, Box 40, Lancaster, Wis.

Wanted—Married man for general farm work, separate house. State age, size of family and wages expected. Steady position. Registered cattle. F. P. HART, Hotel Irvington, Wauwatosa, Wis.

HELP WANTED

Wanted—Single man to assist with milking Holstein cows on semi-official test. Give age and experience in first letter. U. S. EXPERIMENT FARM, Huntley, Montana. 15-2

Wanted—On certified farm in Michigan, a middle aged man, good milker and feeder, to care for dry cows, freshening cows and raise calves; also a dry hand milker for certified barn; a bottling room man who understands automatic filler and capper, boiler, ice machine, and sanitary requirements of certified milk production; a man for farm work, good teamster, steady job for right man. Single men, good wages, board and room. Give references and wages expected first letter. Address BOX 308, care Hoard's Dairyman.

Wanted—By November 1, single man, a good milker and all around farm worker and good teamster. Guernseys. Must be clean and reliable. State age, wages in first letter. LUEDKE GUERNSEY DAIRY, Juneau, Wisconsin.

POSITION WANTED

Wanted—Position as farm manager or superintendent of large grain and stock farm. Understand farming in all its branches; had years of experience with show cattle, horses and the dairy. Able to manage any sized farm and help. Married, middle aged, honest and reliable. High personal references. Address BOX 314, care Hoard's Dairyman. 14-2

Fireman, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?) Railway Association Desk W-5, Brooklyn, N. Y. 12-4

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted, by November 1, position on dairy farm. Good dry hand milker and feeder. SIDNEY EELLS, Spring Valley, Wis.

Herdsman open for position at once—Seven years experience. Holstein A. R. S. O. Guernsey A. R. up to 625 lbs. fat class F. Not afraid of work. References. Two years Agricultural College. VERNON WOEBSE, Care Minneborya, Drewery's Bluff, Virginia.

Position Wanted—Small dairy farm or milk route work. Single, 25, experienced, temperate, energetic, kind to animals. References. State wages and requirements first letter. Address BOX 326, Care Hoard's Dairyman.

Wanted—Position farm manager, 45, married, three children; years of experience, dairying, general farming and handling pure bred stock, also tractors and machinery; employed now, best references. Route 1, BOX 55, Downers Grove, Ill.

Position Wanted—Single man with 9 years experience as Danish buttermaker. Received training in the old country and is fully experienced. Can furnish the best of references upon request. Anxious to start work at once. Address HENRY SCHMIDT, Care Christ Schmidt, 925-13th, Belle Plain, Iowa. 15-2

Wanted Position in milk room by single experienced hand. State wages. Address BOX 327, Care Hoard's Dairyman.

Middle aged man wants place as herdsman. 20 years experience with dairy cows. Can give best references. Address BOX 325, care Hoard's Dairyman.

Market for Cheese in South Wales

American cheese was well known and popular in South Wales years ago, but has now practically disappeared from the market, states Consul A. B. Cooke in a report to the Department of Commerce based on interviews with wholesale merchants. One large dealer says that of late years American exporters have been quoting only a second-grade cheese (not made of whole milk) and that as this market demands a whole cream cheese, it has not been possible to handle the American product offered. Another merchant states that the Canadian product has supplanted the American cheese on this market because of the richer quality of the Canadian cheese.

South Wales is distinctly an industrial area, the population being made up largely of coal-mine workers and workers in various metal industries, as well as sea-faring men. The people consume large quantities of cheese regularly throughout the year. The demands of this market are met by the domestic output and to a considerable extent by imports, principally from Canada and New Zealand, the supplies from these two countries being seasonal and supplementing each other, the Canadian cheese coming on the market from September to March and the New Zealand cheese from April to September. A small amount of Dutch cheese is also handled, but the demand for this article does not seem to be growing. The cheese imported from Canada and New Zealand is a rich milk Cheddar of about 80 lbs. weight. It is asserted by the trade that the large size of the cheese is an advantage, because the article tends to ripen much better when in such bulk than when in smaller forms.

Tom Tarheel says that the only way to improve the soil in a large field is to grow and turn under legumes.

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

Washington, D. C., October 21—The appointment of the Agricultural Fact Finding Commission by the President is still deferred, and he has had two outstanding farm organization leaders here in Washington during the past week to confer with him on this subject. The two were Hon. Louis J. Taber of Ohio, Master of the National Grange, and O. E. Bradfute of Ohio, President of the American Farm Bureau Federation. Both of these men advised President Coolidge not to call a commission of this kind together until after election. Both feared the influence of partisan politics on its deliberations. It is also stated that they advised the President that the increasing prosperity of mid-western farmers had relieved the urgent necessity for agricultural action.

⚜

Attention in Washington is centered on election prospects and possible results, rather than on either agricultural or business conditions at this time. Even the announcement of the German loan and its large success failed to do more than to awaken political speculation as to its influence on the chances of President Coolidge's re-election. Professor Hirsch, a prominent German economist who is here unofficially on a study trip, speaking to the Farm Hands Luncheon Club here on the day the loan was floated, declined to discuss its possible effects further than to say that it meant the continued stabilization of German currency which was a prime factor, in his estimation, in the resumption of normal industrial conditions in Germany. This in turn meant increased consumption of foods and fibres, and an increasing demand from Germany for these products. He said Russia would not be in position to supply very great amounts for some years to come. The picture painted by Professor Hirsch of the unusual effects of their currency depreciation on the agricultural people, leading to the payment of all debts and the purchase and use of vast quantities of fertilizer and agricultural machinery, was most interesting. With the restoration of a stable currency by the device of the roentenmark, he said, while it had made industrial business and banking development possible, it had at first resulted in great losses to agriculture and to a sudden throwing of agricultural products onto the market, so for a time there had been lower prices in Germany for most foodstuffs than anywhere else.

All of this has a large effect on the dairy situation, for it means that for a time at least the consumption of foreign butter in Germany was checked. As industrial recovery proceeds, however, Germany may be expected to come back into the market for large quantities of Danish, Holland, and Russian butter. At one time, Professor Hirsch stated, in Berlin there was just one barrel of butter during the food shortage which existed in 1920. Weather conditions, he stated, had been most unfavorable during the present year which, providing industrial conditions go on the up grade, will also make Germany an importing nation for foodstuffs during the coming winter.

⚜

The co-operative marketing situation is receiving still augmented attention here just now, preliminary to the consideration of bills on this subject in Congress. The Tincher bill has been brought up again and appears to have strong agricultural department support. It is expected that the House Committee on Agriculture will start hearings on these bills early in September.

⚜

The Agricultural Situation, published by the Bureau of Agricultural Economics, discusses the dairy situation at length in the current issue. It is figured that there has been an increase in the consumption of butter this year over last by the rather imposing amount of 4,135,000 lbs. a month. The domestic production increase has been at the rate of about 10,500,000 lbs. per month. There is an increase in cheese consumption of over two and a half million pounds a month over last year.

A study of price indexes which your correspondent has just completed shows that for the first time in many months hogs are well above 100 and corn and wheat price indexes are higher than the price index of butter, for the first time since 1921. The lines crossed in June and July and the difference especially in favor of corn is very marked at this time.

SALE ANNOUNCEMENTS

Oct. 27-28—Holsteins. Otter Tail County Sale, Fergus Falls, Minn.
Oct. 28—Wells & Smith Dispersal Sale, 26 Jerseys, at Prairie Farm, Wis. Hugh A. Feagle, Barron, Wis., Sales Manager.
Oct. 29—Postponed Sale Montgomery County Holstein Breeders' Ass'n. at Rockville Fair Grounds, Rockville, Md.
Oct. 29—Ayrshire. Allegheny—Steuben Ayrshire Club Fifth Annual Consignment Sale at Hornell, N. Y. Irving M. Jones, Alfred, N. Y., Sales Mgr.
Oct. 29—The Rock County (Wis.) Holstein Breeders' Ass'n. Sale, Janesville, Wis. John W. Jones, Milton Jct., Wis., Sec'y.
Oct. 29-30—Barron County, Wisconsin, Joint Breeders' Sale, Holsteins and Guernseys, Rice Lake, Wisconsin.
Oct. 29-30—Holsteins. West Salem, Wis. Western Wisconsin Holstein Breeders' Cattle Sales Ass'n. O. G. Clark, Sale Mgr., West Salem, Wis.
Oct. 30—Holsteins. The Stephenson Co. Holstein-Friesian Ass'n., Chas. H. Rosenstiel, Sale Manager.
Oct. 30-31—Holsteins. The Randolph Holstein Association, Randolph, Wis.
Oct. 30-31—Holstein Dispersal Sale. Crozer Dairy Farm, Upland, Pa.
Oct. 31—Holsteins. Monroe Co. Holstein Breeders' Consignment Sale, Sparta, Wis.
Oct. 31—Holsteins. Enock Carlson, Roberts, Wis.
Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 1—Holsteins. Washington County Breeders and Oscar W. Hanson Dispersal at White Bear, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Mgrs.
Nov. 3—Barron County Jersey Breeders' Association Consignment Sale at Barron, Wis. Hugh A. Feagle, Barron, Wis., Sales Manager.
Nov. 5—Holsteins. Fuhrman Canning Sale at De Forest, Wis. F. H. Everson, Sales Mgr.
Nov. 5—Holsteins. First Annual Sale. Clair F. Limbeck, McGregor, Iowa.
Nov. 5—Holstein Dispersal. Robert A. Ryan, R. 2, De Pere, Wis.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 7-8—Holsteins. Hanson—Hackney Holstein Sale at St. Paul, Minn. Twin City Pedigree and Service Co., Minneapolis, Sale Mgr.
Nov. 11—Holsteins. District Holstein Sale, Berea, Ohio. Under management Ohio Holstein-Friesian Association.
Nov. 11-12—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Mgr., So. Byron, Wis.
Nov. 14—W. W. Marsh Cherub Guernsey Sale. Inter-state Fair Grounds, Trenton, N. J.
Nov. 17—Holstein Dispersal, Oak Hill Stock Farm, John H. Smith, Prop., Crown Point, Ind.
Nov. 18—Holsteins. Annual Quality Sale. Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Sec'y., Waukesha, Wis.
Nov. 19-20—Guernseys. The Western Wisconsin Guernsey Cattle Breeders' Sales Ass'n., West Salem, Wisconsin.
Nov. 20—Holsteins. Cowdenside Herd Sale. R. N. Thompson, Cowden, Ill.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 25—Holsteins. Dispersal Sale of H. H. & R. C. Walker at Du Quoin State Fair Grounds, Du Quoin, Ill.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.
Dec. 9—Holsteins. Dispersal of J. M. Kelley herd at Baraboo, Wis. Frances Darcey, Sales Manager.



Farm of P. J. Greiner, Algona, Iowa

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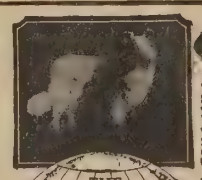
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HOARD'S DAIRYMAN JUNIORS



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Daniel Dare Discovers Weeds

Foreword: Several answers to the problem stated about silage in the last chapter of the "Adventures of Daniel Dare" have been offered, but so far Danny himself is the only one who has the correct solution. Danny, however, doesn't want us to publish his method just yet—he seems to think that some other Hoard's Dairyman Junior ought to be smart enough to present the entire solution. Danny has consented that we publish the correct answer. Therefore, the 14x30 silo will feed from 28 to 30 cows for six months. This week we find Danny playing a new role. Now go on with the story—

PERHAPS you wouldn't call Daniel Dare a discoverer, but nevertheless he felt just like one. True, he knew more than half the weeds that the agricultural teacher from the town high school was trying to teach them that day, but he was discovering a lot more about their habits, and as the afternoon's lessons progressed he was learning more about how to get rid of these troublesome plants. So he really was a discoverer.

Miss Edsel had told every member of the agricultural class to bring a weed from home so they would have some material to work with when Mr. Hamilton, the high school agricultural teacher, came out to teach weeds.

"Today, we're going to study ten weeds," began Mr. Hamilton. "We want to learn a little about their characteristics and quite a little about how to control them.

"You've heard them called noxious weeds. According to the dictionary, noxious means injurious or destructive. Now noxious weeds, like other plants, may, first of all, be divided into three classes. It is important that we do this because we must first know the plant's habits if we are to get rid of it. The first class is called *annual*, the second *biennial*, and the third *perennial*.

"If you had studied Latin these words would explain their own meaning to you. An *annual* is a plant that grows up from seed and matures more seed in one year. At the end of this time the mother plant dies. A *biennial* grows for two years, produces seed at the end of the second year and dies. A *perennial* produces seed every year and does not die a natural death. What weeds have you brought this afternoon? Let's see what classes they belong to."

Daniel Dare, being first in line, was first to show his weeds. "I have two weeds, Mr. Hamilton. One is Quack Grass and the other Canada Thistle." He held up one in each hand.

"Two very common and two very naughty weeds," said Mr. Hamilton. "Quack is a perennial and so is Canada Thistle. We'll discuss these a little more thoroughly in a few minutes. Who's next?"

Mary sat next to Danny. She shyly rose and—"I think this is Burdock."

"Right! And it is a biennial. Next!"

Mark Mason shook his head. "What—no weed at all?" Mr. Hamilton appeared astonished. "I forgot," was Mark's only alibi. The class as usual was amused.

John stood up and presented Mustard to the class. Mr. Hamilton quickly identified it as an annual. No other new weeds were brought forth, but several others were duplicates.

"You have now seen examples of each class of plant that I mentioned a few minutes ago. Before I give you the other six weeds, we will discuss in a general way some methods of getting rid of weeds. Who can give me one method?"

"Cut 'em off!" John announced.

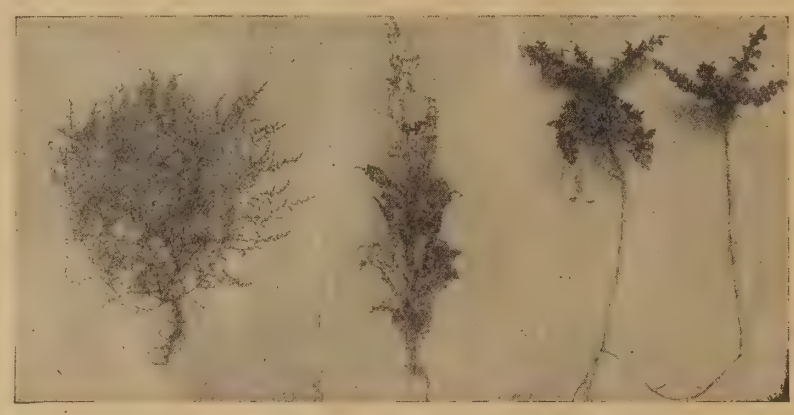
"Sure, that's one way. Only we want to be sure to cut them off before they begin to make seeds."

"Won't cultivation do it, too?" Danny wanted to know.

"Indeed it will. That's a second way. Grow cultivated crops. Of course if you don't do a mighty good job of cultivation, it's almost worse than no cultivation at all because it gives the weeds a dandy chance to spread out.

"A third way, if your field has a great many weeds in it, plow in the spring and allow it to remain idle during the summer, cultivating it regularly to get rid of the weeds. This method has the disadvantage of not making the land grow crops, but it is sometimes advisable.

"Number four, sheep are very fine weed eaters. Often they will do a lot of weed damage to a field in one season. They are very good for Canada thistle if they are turned on when the thistles are very young. Sometimes it is necessary to pasture the same piece of ground several seasons to completely kill the weed growth.



Left to right: Russian Thistle, Sow Thistle, Canada Thistle.

"Chemicals have been tried and to a certain extent are successful, but not to be recommended for general use. A very important method of weed eradication is to use a smother crop such as clover or alfalfa. These crops not only tend to choke out the weeds, but as they are usually cut twice a season, sometimes oftener, the weeds do not get a chance to go to seed.

"Then there's the method known as 'spudding'. A 'spud' in this case is not a potato but a tool—with handle and a sort of chisel on the end. This is used to cut the weeds off below the surface. Now I've done a good deal of talking. I'm going to do some more, but this will be an illustrated lecture. When I was driving out here I stopped along the way and picked ten different noxious weeds, roots and all. I am going to hold each one up and talk about it. Some of the weeds are the same as the ones you have brought. Others you are probably familiar with."

Danny was sitting on the edge of his seat, he was so interested. Truly he was discovering several things he had not known before. Danny, the discoverer, was on a new expedition. The other members of the class showed more than their usual interest.

"Here is our old friend, Quack Grass. It has two ways of reproducing, by seed and by shoots from its creeping roots. Quack is a hard customer to deal with. If it is growing in small areas it is possible to smother it out by covering with tar paper. We might also summer fallow. Cultivated crops such as potatoes and corn with plenty of hoeing will also get Quack's goat.

"For your approval I present Canada Thistle and one of his cousins, Sow Thistle. Both are perennials. Note that Canada Thistle also has the creeping roots from which new plants may be produced. A smother crop such as alfalfa or clover is very effective in getting rid of these weeds. Sheep will eat them, too.

"This you see is another member of the thistle family—Russian Thistle. It is an annual. We must keep it from going to seed. Cultivation will do it!

"You all know Wild Mustard, another annual. Fight it by planting a cultivated crop, and be sure to cultivate thoroughly. You may also spray to kill this weed. But be careful not to spray in clover and alfalfa. Chances are you won't be bothered with Mustard in these crops anyhow.

"Make the acquaintance of Mr. Yellow Dock, the biennial troublemaker. He's tall and easy to see. When the seeds ripen he turns a brownish color. You can pasture this fellow and if the sheep do a good job his life will be short. Grow check rowed corn and keep it clean. Then watch Yellow Dock take to his heels.

"How do you do, Friend Burdock. We've all seen you before. You're a biennial and we don't care for your company. We'll just cut you down and salt your roots, and see how you like it.

"Hello there, are you two brothers? You look alike. Belong to the Ragweed family, don't you? You're Giant Ragweed and this is your cousin, Common Ragweed. Annual wonders, aren't you? You like to make hay fever patients sneeze. We're going to chase you out of the country. We've got a whole army of cultivators, hoes, and scythes to do it with, too. If you poke your head up in our corn, we'll chop it off.

"And last, but not least, Buckhorn. You belong to the plantain family. We aren't crazy to make your acquaintance because you're a perennial. With a spud, we will decapitate you. We will grow a cultivated crop so you'll have plenty of chance to grow and then we'll kill you before you make your seeds.

"And now, my good boys and girls, here ends your agricultural lesson for today. Learn these weeds, their habits, and how to get rid of them. Then go home, and if you're ever troubled with any of them, you'll know what to do."

The class appeared to be spellbound with Mr. Hamilton's method of presenting the weeds. Why he



Left to right: Common Ragweed, Giant Ragweed, Yellow or Sour Dock, Hedge Mustard (first cousin to Wild Mustard).



Left to right: Quack Grass, Burdock, Buckhorn or English Plantain.

made them so human they almost walked up to shake your hand. Danny was the last to leave his seat. Then he didn't go back to his own, but went up to examine more closely the weed plants he had just met face to face, and to ask a question or two. Daniel Dare had discovered weeds.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Results are often a measure of success. The methods used by good dairy farmers contain many good lessons which may mean the difference between success and failure for us. The article "From Scrubs to Purebreds in Canada" in the October 10th issue of Hoard's Dairyman is right in this line.

Why did J. G. Wait change his herd from grades to pure-breds? Keeping records did it. In 1911 he had on his farm a common, ordinary bunch of grade cows with no particular breeding. He started keeping milk records and discovered his herd averaged about 5,000 lbs. of milk. By weeding and good breeding methords he turned this grade herd into a pure-bred one producing an average of 10,000 lbs. of milk a year. In 1918 Mr. Wait joined a cow testing association.

What feeds do his cows get? About 30 lbs. of silage a day, 12 lbs. of good legume hay; the grain ration consisted of 100 lbs. each of bran, shorts, oat chop, wheat screenings, and 30 lbs. of oil meal. Mr. Wait was one of the first in his section to grow sweet clover—both for pasture and for hay.

How is Mr. Wait helping his neighbors? By selling them very fine breeding stock at low prices. He has helped them to buy feed co-operatively. He is a strong booster for cow testing association work.

At what age are calves most likely to have tuberculosis? According to a chart prepared by the Bureau of Animal Industry calves under six months are more likely to have this disease than when they are between six months and one year. One in every 32 of the younger class of calves tested had tuberculosis, while in the older calves it was found that one in every 20 had the disease.

How much has milk consumption increased in the U. S. in last six years? Forty quarts "per capita" (meaning average for every man, woman, and child). In 1918 it was 172 quarts each and in 1923 212 quarts.

How has tuberculosis eradication progressed? Eradication means to get rid of. In 1918, before a plan was adopted for carrying on this work, only 134,143 animals were tested. In 1923 this number had increased to 3,460,849.

Who is Langwater Ultimas? He is a noted Guernsey bull for which F. J. Rueping of Wisconsin recently paid $10,000. The record established for the breed by this sire is that his first six daughters to be tested, all with first calf, averaged 11,514 lbs. milk, 626.5 lbs. fat.

See the article by O. E. Reed in the Oct. 17th issue of Hoard's Dairyman for a further discussion of the following:

Where did the Ayrshire breed of cattle originate? In the county of Ayr in Southwestern Scotland. This breed has been making great progress in recent years.

Give the average production of cows in the Scottish Milk Record Society. Fully ninety per cent of the cows entered in this Society are Ayrshires. Last year 33,000 cows were tested and the average production amounted to 7,500 lbs. per cow.

How are the cattle cared for in Scotland? The cows are left in pasture for eight to ten months of the year. From December to February the cows are usually stabled and fed straw, hay, and cow turnips, and a little oil cake.

Name the Channel Islands. Jersey, Guernsey, and Alderney. These are the homes of the Jersey and Guernsey cattle respectively.

How are the cattle cared for on the Islands? They are tethered in small pasture lots. Pastures consist of a mixture of alfalfa, clover, rye, and grass. Other crops such as oats and vetch furnish pasture.

How much is Island land worth? Land sells for from one thousand to twelve hundred dollars per acre and rents from fifty to sixty dollars an acre per year largely because green houses and hot beds make the acres very productive, sometimes from three to four hundred dollars per acre.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.



The Young Giant Next Door

CANADA, your progressive young neighbor on the north, is fast growing up. Do you realize what a young giant of a nation Canada has already become? Here are some startling facts:—

Canada stands fifth among the exporting nations of the world.

Canada's export trade per head of population ranks third among all nations.

Canada is the world's largest exporter of wheat.

Canada has, in proportion to population, the greatest railway facilities of any country in the world—a total of 40,000 miles in active operation.

Canada's Savings Deposits amount to an average of $146.21 per head of population.

Canada has the greatest Hydro-Electric power development in the world.

Canada is the world's largest producer of nickel and asbestos, and one of the leading producers of gold and silver.

Canadian dairy herds carried off the premier honors at the National Dairy Show at Syracuse last Fall.

Canada's production of Dairy Products has increased by $164,000,000 since 1900.

Canadian Clydesdales won the Grand Championship Awards at the Chicago International the last four years.

Canadian apples won the highest awards in the British Empire Fruits Exhibition held in England last year.

Canada's people are progressive, Canada's Government is responsible and democratic, Canada's laws are just and impartially enforced. Life and property are safe in Canada.

Canada's climate is healthful and invigorating. It is a "white man's climate"—the climate of the North Temperate Zone, in which all the dominant nations of the world are located.

Canada, one of the soundest, strongest and most prosperous countries in the world today, is destined to be one of the great nations of the earth. What the Nineteenth Century did for the United States, the Twentieth Century is doing for Canada.

Canada has 300,000,000 acres of fertile farm lands. Prices near railroads average about $15 to $20 per acre. Free homesteads are offered farther back.

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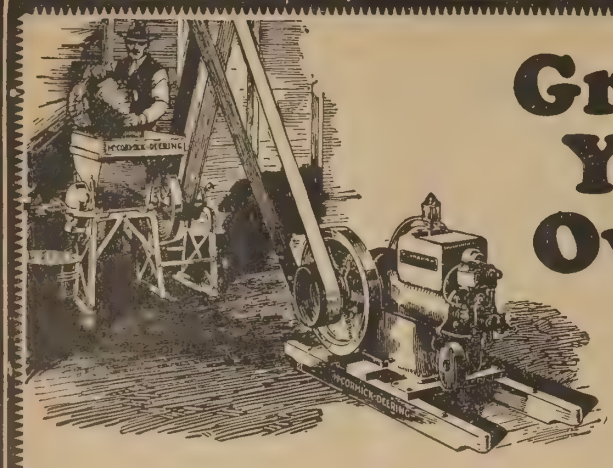


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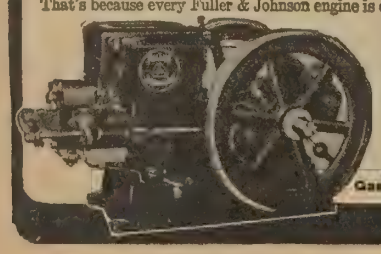
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In The Day's Work — An Ancient Parable

ELWOOD ERICKSON, NEW YORK

"THE trees went forth on a time to anoint a king over them: and they said to the olive tree 'Reign thou over us'. But the olive tree said unto them, 'Should I leave my fatness, wherewith by me they honor God and man, and go and wave to and fro over the trees?' And the trees said to the fig tree, 'Come thou and reign over us,' But the fig tree said to them, 'Should I leave my sweetness, and my good fruit and go to wave to and fro over the trees?' And the trees said unto the vine, 'Come thou and reign over us'. And the vine said unto them, 'Should I leave my new wine, which cheereth God and man, and go to wave to and fro over the trees?' Then said all the trees unto the bramble, 'Come thou and reign over us'. And the bramble said unto the trees, 'If in truth ye anoint me king over you, then come and take refuge in my shade: and if not, let fire come out of the bramble and devour the cedars of Lebanon'."

Here is an ancient parable that portrays a modern situation. Wherever men exercise the right of suffrage some will evade their civic responsibility. It is a scathing arraignment of those smug, self-complacent citizens who reject their obligations on the discreditable plea that they are too comfortable to be disturbed. The least desirable of their number, not so solicitous of their personal comfort, ready to take advantage of their slumbering fellows, worm their way to places of leadership and impose dictatorial conditions to which the meek submit.

The parable is an indictment of the lassitude on the part of the worthy electorate in almost every community. One of the most alarming weaknesses of popular government is the failure on the part of many respected and worthy citizens to exercise their right of suffrage. Preoccupied by their own interests, lulled by their personal comforts, many of these people refuse to leave their comfortable firesides to cast their vote on election day. Some of the states have primary elections at which time a candidate is selected, yet many people do not know even the name of the candidate until the day of election arrives. They were not interested enough to go to the primary and express their preference. In one community in Ohio, well known to the writer, there were 9,000 registered voters but on election day only 3,000 votes were cast. The rest of them refused to leave their fatness and ease.

There were two interesting results in that community after the election and these results can be repeated over the entire land, for it is a typical community. In the first place, the best man lost and the least able man was chosen—the bramble sort of leader. The practical politicians counted as a dependable factor that election day would draw out a larger proportion of the undesirable vote than the vote of its respected citizens and their calculation did not fail. The good people stayed at home and the questionable element crowded to the polls and elected their man.

The other result was amusing, though serious. The man who forgot to vote became the most bitter in his denunciation of the whole system of popular government. He curses out the whole business but neglects to consider that he himself created the situation which he so bitterly criticizes.

As a matter of fact, we get just about the sort of leadership which we deserve. Just as long as the intelligent group in the community refuses to accept its civic responsibilities, just so long will public office be infested with the bramble kings. But when men will consent to set aside their personal affairs and lend a hand and at least register their thinking vote, these inefficient incumbents of office will disappear. That day is approaching. The entrance of women into the political sphere has aroused the male vote in the country to a new seriousness and we look for greater benefits in the future. Very few men will want to abide by their own comfortable firesides while their wives go out and vote for the family. "In that bivouac of life, he does not want to be represented by his wife."

We are on the eve of a national election. The highest honor that America can confer is to be given to him who shall be chosen the titular head of this great land of ours for the next four years. No higher office lies within the power of man to confer upon his fellows. An event of such transcending importance enters into the life and affairs of every citizen of this republic. It should stir the most indifferent, the most slothful to his obligation to vote. Every enfranchised man and woman in this republic, rejoicing in the duty and privilege of suffrage, will come up to the election booth in November anxious and proud to cast his or her vote for one of the fine candidates. Let not the ancient reproach of political lassitude be charged against the thoughtful, earnest electorate when this fall we select the next president of the United States.



"LIME DID IT," SAYS M. E. SMITHBACK

For 13 years this Wisconsin dairyman tried to get a stand of alfalfa. Something happened every time. Finally he had his soil tested. It was lacking in lime and phosphate. The first he applied at the rate of three tons to the acre, the latter at the rate of about 300 lbs. an acre. He inoculated his alfalfa seed and sowed. The picture above shows the result. This is the second crop in the second season.

"I'm proud of it," declares Mr. Smithback. Don't you think he has a right to be? Through his herd of some 35 registered and grade Guernseys he is going to convert this field into milk checks next winter. His herd is on the accredited list. Besides furnishing a direct income, the herd contributes to the fertility of the land and gives plant food to a crop of tobacco which in normal times brings an income of $7,000 a year.

Milwaukee Milk Producers' Association

(Continued from page 434)

making a mistake, although we believe most of them do not know that the price of special milk in Milwaukee is based upon the price of fluid milk produced by the members of the Milwaukee Milk Producers' Association. This being true, the men producing special milk should still continue to support the organization which is the instrument which determines what the price of fluid milk should be.

If all the members fully understood the service which their association has rendered to them and to those outside the association who are selling milk in Milwaukee, there would be only a few, and these would be dishonest, who would not support this organization. The average price paid for milk testing 3.5% in Milwaukee for August was $2.40 a hundred. This was equivalent to 45 cents per pound for butterfat, 50 cents a hundred for skimmilk, and 41 cents to pay for the extra cost of producing milk for a fluid market. There may be those who argue that the price of milk was not high enough. This we will not discuss, but none who are informed can truthfully say that the price was not good when all the factors pertaining to determining prices of milk are taken into consideration. Only a few creameries paid as high as 45 cents a pound for fat. A few farmers would value skimmilk at 50 cents a hundred and plenty of farmers would produce fluid milk if the price were but a little above that paid by the creamery.

We have favored certain forms of organization for co-operative marketing, but in the last analysis the plan of organization is not the great factor in success. It is the man given the responsibility of managing the organization and those associated with him who are responsible for the success of any co-operative marketing company.

Mr. G. R. Rice, the secretary of this association, has been a capable manager. He has gained the confidence of the milk distributors and they have found it to their advantage to buy milk through his association, even at a higher price than to follow the old system of securing their supplies from individual producers. There are members of the association who feel that their organization is not rendering the service it should because it is not constantly fighting the dealers. These men have not appreciated that this method of procedure has never succeeded and never will. The keen manager gains the confidence and good will of his customers and then renders them the kind of service the business requires. Customers are then willing to pay more for a product, for it is worth more to them. As Mr. Rice has stated, "Confidence in each other creates stability, good will brings the price, and co-operation gives protection to the industry in our individual markets. The three combined promote harmony and the team work that renders efficient service to the industry and betterment of conditions for all."

Progress Through Effort

HOARD'S DAIRYMAN:—Under the leadership of Mr. Doemming, a former tester for the Central Monroe, Wisconsin, Cow Testing Association, there was considerable soil survey work done in this community. Mr. W. E. Hubbard was one of those who took advantage of this survey and he learned how to handle the soil in each field. He is a thorough believer in liming and in hauling manure direct from the barn to the field. Like all good farmers he is building up the fertility of the farm each year. He now expects to be able to feed his cows entirely on alfalfa hay. On a former marsh, now drained, he last year secured better than 3 tons alfalfa hay to the acre.

The cows on the Hubbard Farm have averaged $15.50 per month per cow at the creamery this year. From the first year of testing to the second, the cows gained $30 per head in net



PRIDE OF KING OF THE RILMA'S

She has a two-year-old record of 400.7 lbs. fat in the Hubbard herd of Guernseys at "Green Meadows".

profit, so that each cow by increased profit paid for the cost of testing the entire herd. In three years of testing, the herd average was raised from 6407 lbs. milk containing 306.7 lbs. fat to 6873 lbs. milk containing 349.8 lbs. fat. The following table shows the production of four daughters of King of the Rilma's, compared with the production of their dams:

Dams Age Yrs.	Dams Fat Lbs.	Daughters Age Yrs.	Daughters Fat Lbs.	Credit* Lbs.
5	274.5	2	400.7	573.4
10	373.7	1½	259.9	371.4
5	360.4	2	376.2	537.4
Ave.	336.2		345.6	494.0

*Estimated production of daughters at maturity on the assumption that a two-year-old heifer will produce 70% of what she will at maturity.

The daughters of King of the Rilma's averaged nine pounds more fat at two years old than their dams did at their best mature record. If



KING OF THE RILMA'S

The sire at the head of Mr. Hubbard's herd which has helped build up 3 herds.

allowance be made for age, these heifers may reasonably be expected to produce 160 pounds more fat in a year when they reach maturity than the best records of their dams. This sire is now ten years old, has helped build up three herds, and is still in service.

The Hubbard Farm produces pedigreed seed, Guernsey cattle, Duroc hogs, and sheep. The owner raised 72 lambs this year and finds that a combination of sheep and cattle is very profitable. He specializes in Golden Glow corn and Grimm alfalfa, as he finds these outyield all other crops. He now has all the necessary equipment for efficient production, including a tractor, milking machine, drinking cups, and electricity. This year he is installing a bathroom and a septic tank.

Wisconsin. VERNER SORENSON.

Book on Forage Plants

The growth and utilization of forage crops is one of the most important factors, if not the most important factor, for success in live stock farming. It is the basis of all economic feeding of cattle, for with the right kind of roughages it is possible to build a satisfactory ration with almost any mixture of grains available. Too few farmers recognize the importance of good roughage, just as they fail to appreciate the necessity of better pastures when attempting to feed their cows on pasture for six to eight months of the year.

As a valuable contribution to our specific information concerning this subject, we are pleased to broadcast the news of the publication, by The MacMillan Company, of a revised edition of "Forage Plants and Their Culture", by C. V. Piper of the U. S. Bureau of Plant Industry. The book consists of over 600 pages of printed matter and illustrations descriptive of the great variety of forage plants, their culture and their utilization. Not only is there discussion of each of these plants, but the book contains several chapters that discuss in a general way forage crops as to their growth, preservation, seed, use as hay and pasture, and their relative importance as indicated by a statistical survey of the amount of their production and feeding value.

As indicative of the trend of the first part of this volume, we might briefly itemize the subjects discussed in the chapter devoted to "Meadows and Hayfields". The author describes various meadow mixtures and their composition, the treatment of permanent meadows, fertilizers for hay crops, the principal hay plants, the loss of weight in curing hay, and a great variety of other matter.

The greater part of the volume is devoted to a discussion of the growth and utilization of specific forage crops. We might cite timothy, alfalfa, southern grasses, sorghums, and a host of others. Possibly, however, the readers of Hoard's Dairyman would be most interested in knowing how the author treats the subject of sweet clover which has been so well presented in the series of articles by Professor Fraser. The author describes the plant carefully, its climatic adaptations and soil relations, its history in America, how to seed and secure a stand, its utilization as green manure, hay, pasture, and silage, its yield of hay and seed, and the adaptations of the different varieties.

We do not know of another book better deserving of a place in the farm library where the desire is to have a general discussion of and specific information on the important forage crops of America. This book may be secured from the publisher, or through Hoard's Dairyman Book Department on receipt of its regular price, $3.80.

Says Sam: Hope is the dream of a man awake.





WM. LOUDEN

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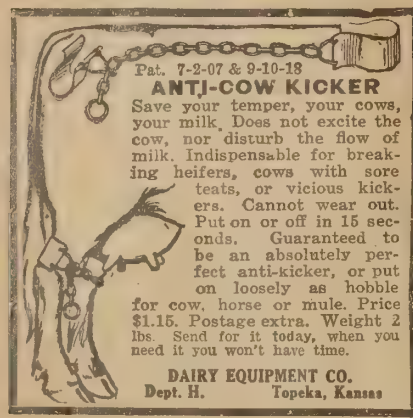
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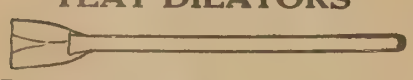
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Maggots and Screw Worms

Time is so occupied with the important work of the farm and "help" so inadequate that slight scratches, wounds, and abrasions of the skin affecting farm animals often are neglected and consequently become "blown" by flies with the result that maggots form and greatly aggravate the condition or may even cause fatal shock and poisoning. Screw worms, in the southern states, always are a menace to farm stock. So well is the danger understood and feared that on many ranches poison "baits" are set out to attract and destroy the flies responsible for the "worms" or larvae. Wounds of the skin are also sprayed with a fly-repelling disinfectant, when the hands can "get around to it", but despite treatment, or from lack of it when most required, it is quite common for animals to become badly infested and even killed by the parasites. It certainly pays, therefore, to give even the slightest wound of the skin prompt and frequent attention until healing ends the danger from maggots.

Shepherds know so well from experience what havoc maggots may cause in a flock that they are careful to daub pine tar or a mixture of that and crude carbolic acid, or oil of tar, on every shear cut and other wound suffered by sheep and also find it necessary to keep soiled wool clipped from the tail and nearby parts of the body, as flies otherwise would be attracted and maggots result. When such attention was neglected we have seen on a dying sheep a small external orifice or wound and a seething mass of maggots in gangrenous, putrid flesh hidden by wool and skin. Despite immediate removal of the maggots, after injecting chloroform which is deadly to the larvae, and scraping out of the diseased tissues and use of disinfectants, the suffering sheep succumbed. Treatment was given too late. Prevention always is of paramount importance. It is equally necessary as regards cattle. We have seen a diseased udder almost as badly invaded by maggots as the flesh of the sheep we have mentioned. The larvae will form almost "over-night" in hot summer weather. Protection of all wounds on pastured cattle is imperative. Frequent free applications of a reliable commercial fly-repellent will do much to prevent screw worm and maggot invasion of wounds.

We need not give many formulae for "dope" to keep flies away and prevent maggot formation, as they have been published time and again in these columns. Usually the commercial or advertised fly repellents are as cheap as one that could be made on the farm. Where obtainable at fair prices they should be freely used, strictly in accordance with the instructions given by the manufacturer. Nearly every stockman, however, has his own pet preparation and uses it with more or less regularity. For those who have not such a formula we may quote the following which has been much recommended. Cut up and dissolve 1 pound of laundry soap and dissolve it with hot water. Then stir in 1 gallon of kerosene and 3 ounces of powdered naphthalin and add soft water to make 4 gallons. Apply with spray pump. If such a mixture is found to cause too much smarting it should at once be further diluted with water. Care should also be taken not to spray a strong repellent upon the tender udder and teats. For full information about maggots and screw worms see bulletins on the subject which may be obtained from the U. S. Department of Agriculture, Washington, D. C.

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Cracked Teats

We have some Holstein cows that we allowed the calves to run with perhaps a little too long and their teats have become cracked and sore and it's some job to do the milking. We have used several different kinds of salves and also healing powder but they do not seem to heal permanently.

Henry, Ill. H. C. S.

For 5 minutes or more, night and morning, immerse the sore teats in hot water containing all the boric acid it will dissolve, then dry the parts gently and apply tincture of iodine once. After that apply a mixture of 1 part of balsam of Peru and 3 parts of glycerin after each immersion, and if that does not suffice try a mixture of 1 part of tincture of iodine and 3 parts of compound tincture of benzoin. As soon as healing is progressing well, stop the immersion treatment and merely apply the balsam mixture or a soft paste of bismuth subnitrate and castor oil.

Scours

My calves are troubled with white diarrhoea. What can I do for it? What causes it? What can I do to prevent its recurrence?

Twinsburgh, Ohio. S. Farms.

You should have told us the age of the calves. If the dysentery occurs just after birth and proves fatal, it is germ caused and the infection is born in the calves or contracted by way of the navel or mouth just after birth. There is no certain medicinal remedy, but the disease can be prevented with a fair degree of success by immunizing the new born calf with anti-dysenteric serum, saturating the stump of the navel with tincture of iodine, then dusting it with powdered starch or finely sifted slaked lime and also disinfecting the cow's teats before the calf is allowed to nurse. Provide a new, sanitary calving pen and similar calf pen. If older calves scour, give a dose of castor oil and follow with a mixture of salol and 2 parts of bismuth subnitrate. The dose is ½ to 1 teaspoonful every 3, 4, or 6 hours, according to size of calf and severity of attack. It may be given in a little water or milk by means of a dose syringe. Sterilize all feeding utensils. Isolate scouring calves. Cleanse, disinfect, and whitewash the calf pen, including the floor and put in fresh bedding.

Friendly Talks for Farm Folks

Sam Dagett admits that he wears 46-inch trousers and a 17 collar, but he is able, nevertheless, to still hang to an unswollen six and seven-eighths hat.

Little Elsie from the city came in one day in tears to her mother, saying, "I've looked all over the woods for grape-nuts to grow but I can't find any at all."

There is a crusade on to save this country's fish, the latter being on the decrease with much rapidity. Then why not begin at once by forcibly lawing all uncreamed codfish off the table?

Masie Randall says that she made crosses after the candidates she had no intention of voting for at the September primaries, just because her mind was on the more important matter of whether to bob or not to bob. Let us hope Masie's mind and hair will be made up by Election Day.

One of the surest cures of high blood pressure is the liberal eating of buttermilk. As probably eight out of ten men and women of middle age have this disease in more or less dangerous form, what a blessing it would be to consumer and milk producer if the two could only get together more copiously on the buttermilk diet.

Lettie Barber is in love with a young man, but her mother won't let Lettie marry him because she's only known him for six weeks. On the other hand, Nellie Russel is in love with one of the neighbor's sons, and her mother won't give her consent because Nellie has known this suitor for six years and so knows him far too well. It's getting these days so that a girl can't safely get married at all.

Dan Beardsly from the Hollow and Ike Barrows from the Corners are always bickering back and forth over the respective merits of their two farming sections. Dan pretends to believe that crops grown down the Corners way aren't worth harvesting, while Ike pokes all manner of fun at the produce which Dan raises up in the Hollow. The other day Dan had an errand in Ike's part of the country, and seeing the latter cutting cabbages along the side of the road, called out, "Hey, there, neighbor, are those the largest potatoes you can grow on this farm?" "Quit your kidding," yelled back Ike with gusto, "these aren't potatoes I'm cutting; they're my fourth crop of this season's peas."

Cousin Lena Cox says that no one has read and reread the etiquette book more thoroughly than she, and until the other day she really flattered herself that she was prepared for any social emergency which might come up. But as luck would have it, when little Willie Cox accompanied her to the church supper and upset a full glass of milk all over the church's one big tablecloth, necessitating its prompt removal from service, and the church only had this one tablecloth, and all the Ladies' Aid Society looked—and some went so far as to say—unspeakable things, well, Cousin Lena simply didn't know what to do or how to turn the thing off. And she paid $4 for the disgusting book into the bargain. Another case of a supposed friend deserting one at the vital moment.

New York. HELEN S. K. WILLCOX.

New York Experiment Station Jerseys

(Continued from page 436)

used for comparison with the subsequent lactation period. A cow was considered as being milked and fed thrice daily for the entire lactation period if she was so milked and fed within 90 days after the beginning of her lactation period:

Table 3—Yearly Fat Records of Cows Milked Thrice Daily

Cow No.	Record prior to Nov. 1, 1922 No. of lactation	Av. yearly fat record	Age of cow on Nov. 1 1922	Yr. record preceding Nov. 1 1922	Yr. record on three milkings
3	1	336.7	3	336.7	535.1
4	4	370.0	6	428.4	550.8
5	8	386.7	11	420.7	392.8
23	10	413.5	13	386.9	558.1
24	4	344.7	6	325.7	489.5
26	2	301.2	4	414.6	435.0
Av. of 6 cows		358.8		385.4	493.3
Increase over preceding year					107.9

Table 4—Yearly Fat Records of Cows Milked Twice Daily

Cow No.	Record prior to Nov. 1, 1922 No. of lactation	Av. yearly fat record	Age of cow on Nov. 1 1922	Yr. record preceding Nov. 1 1922	Yr. record on two milkings
1	3	320.7	5	309.4	340.9
2	3	283.7	5	329.2	451.1
7	6	314.1	8	298.8	316.7
12	1	347.5	3	347.5	407.5
16	11	403.4	14	378.5	371.4
18	9	372.2	11	432.8	496.4
20	4	288.6	6	291.2	376.1
Av. of 7 cows		332.9		340.9	394.3
Increase over preceding year					53.4

It will be noted that the cows milked thrice daily increased 107.9 lbs. fat and those milked twice daily increased also but not to so great an extent. The cows milked thrice daily were milked for 12 months and those milked twice daily were milked 11 periods. The dry periods for that year were nearly identical in length. The advantage of 54.5 lbs. of fat per year which the three time per day milking has over twice a day must therefore be reduced by the twelfth month yield if the results are to be more nearly comparable. The average twelfth month production was 32.2 lbs. butterfat per cow which when subtracted from the total increase leaves a net increase due to three milkings and feedings of 22.3 lbs. of butterfat per year.

Such a small increased production due to three feedings and milkings hardly paid for the additional feed so that the extra labor was a complete loss. Discouraging as was the first year's results may seem to the farmer producing milk or butterfat for profit, there are numerous other factors involved. Consider for a moment selected individuals. Experiment Fairy Queen produced 336.7 lbs. of butterfat during her first lactation period on two milkings. She was milked thrice daily for the next lactation period and produced as a senior two-year-old 535.1 lbs. butterfat. Numerous heifers in the herd have produced more than 336 lbs. of butterfat during their first lactation but no cow at this Station has ever equaled her second record at 2 years of age. Will three milkings per day develop her into the highest producing cow the Station has ever owned? Consider also the performance of Rufus Oxford Carey BB who was an average producer for the first four lactation periods. Her average record of 344.7 lbs. of fat increased with three milkings at six years of age to 489.5 lbs. and during the first month of her second lactation period on three milkings she gave just double the butterfat produced in the first month of her last lactation period on two milkings per day when she was five years of age. Will three feedings and milkings serve as a method of developing and discovering the best females in the herd so that they might be used for breeding and record making purposes?

The immediate effect of three milkings and feedings per day is not of much importance to dairymen. It is the long time cumulative effect of this treatment that is so vital to profitable milk and butterfat production as well as to the development of high producing strains of cattle for the advancement of the breed. At some future time the record of the Jersey herd of the New York Agricultural Experiment Station should give valuable information upon this question.

(EDITOR'S NOTE: This is the fourth and concluding article by Mr. Dahlberg on lessons from the herd experience of the Geneva Station for the past quarter of a century.)



AURELIA, OWNED BY WM. KNOBLOCK OF MICHIGAN

The grade Jersey was 8 years old and in one year she produced 13,718 lbs. milk and 715.3 lbs. fat in addition to a fine calf. This gave her third place among all cow test cows in Michigan. Her feed cost was $151.34 and the return above feed cost was $246.48. Good cows liberally fed will make the dairyman a good profit.

Knoblock's herd of 17 Jerseys led the Allegan County cow testing associations and stood third in Michigan with an average production of 8,997.8 lbs. milk and 479.9 lbs. fat per cow. Average feed cost was $113.56—return above feed cost was $154.22 per cow. You can't get something for nothing and if you want your good cows to make you money, give them a chance through liberal feeding.

FOR SALE — BY MAIL

HAMPSHIRE BOARS, PIGS, GILTS

Write for FREE Price List.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

AYRSHIRES

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

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SPINNEY-RUN FARMS

Five Ayrshire Bull Calves

$50 to $200.00.

Federal Accredited Herd

A. L. FARWELL, 102 So. Market St., Chicago, Illinois

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

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High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

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FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

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Production and Individuality

must be combined in the breeding of your next sire. Our success in the showrings of the U. S. and the production of our herd insures you getting individuals from us that will make money for you. We are now offering six young bulls eight to fourteen months of age sired by HOWIE'S KING OF HEARTS or CAVALIER'S LORD ROSEBERRY. 6 bred heifers and 10 young cows. Write for prices and information.

ADAM SEITZ & SONS WAUKESHA, WIS.

Ayrcroft Farm Ayrshires

Are again winning this year. See them at Janesville, Davenport, Des Moines, Hamlin, Chippewa Falls, Springfield, Waterloo, and the National.

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Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old. 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison. 1922.

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JERSEYS

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Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write

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Name Your Own Price!

We Have a

JERSEY BULL CALF for You

BE REASONABLE!

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Raleigh's Torono Rex 223582

The three-quarters brother to Raleigh's Torono's Meme, World's Champion Jr. 2-yr.-old Jersey, sired by Raleigh's Torono, a Silver Medal bull with over 30 in the R. O. M. If you are not in the 50-lb. list, you need him. Write us for pedigree and full particulars. Herd Federal Accredited.

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ALSO HIGH CLASS FEMALES for sale. The bulls are from 1 to 2 years old, ready for heavy service. They are of Oxford Lad and Golden Fern's Lad breeding. Show prospects. The females are exceptionally good ones. Prices are very reasonable. The herd is accredited.

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Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.

The Oaklands, R. 5, Ann Arbor, Mich.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.

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and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.

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THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.



Edgerstoune's Luxury Bond
Born Aug. 10, 1923

Edgerstoune's Luxury Bond

A Promising Young Bull For Sale

His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.

EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

Say it With Dollars

(Continued from page 435)

today that the money is mighty well invested.

Five home-made flues leading up to a 4-foot square cupola furnish ample ventilation for his reconstructed barn. This barn has stanchion room for 22 cows, two box stalls, and three grain bins. He is such a strong believer in ventilation that he even has a specific ventilating system in his home, built much on the plan as found in his barn.

In addition to his outstanding success financially he has attained another success that many another farmer has had as his dream but has failed. For the last few years, the Chester farm has been under the management of F. A. Chester and Sons. The sons, Ralph A., Nathan A., and Elmer A., were taken in as partners as they became of age. No problem of keeping the boys on the farm on the Chester plan. When Ralph A. became of age, he received one-fifth of the profit and so on until the three sons have three-fifths and F. A. Chester has two-fifths of the net profit.

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JOINT BREEDERS' SALE

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30 Females — Pure Bred Holsteins — 20 Bulls
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30 Females — High Grade Guernseys

Included in this sale will be a complete dispersal of the A. T. Galby pure bred Holstein herd. Chetek, Wis.

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For information write

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Send for new list.

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BULLS 6 to 10 Mos. Old
From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

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Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

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SERVICEABLE BULLS with best of breeding for sale. Write

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LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Fittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

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GOODHAND KINGSTON & SON'S
Guernseys Offered at Private Treaty

Because we have recently sold our farm and are breaking up partnership, we are forced to sell our entire herd. It includes 15 cows—most of them with A. R. records. Ten of their daughters by Imp. Itchen May King and 5 sons from a few weeks to 12 months old.

A 60-day retest on all animals and every one guaranteed a breeder.

This herd has been shown at state fairs and national dairy shows with credit for eight years.

Write or wire and we will meet interested visitors at Milwaukee or Waukesha.

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The Western Wisconsin Guernsey Cattle Breeders' Sales Association

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300 - Head Cows, Heifers, Bulls - 300

Watch the papers for further announcements, or write to O. G. CLARK, Mgr., West Salem, Wis.

50 GRADE HEIFERS—Priced to Sell !
REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

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PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

Son of King of Chilmark For Sale



King of Chilmark

King's Esquire of Four Pine 93893. A full sister has 644 lbs. G.

Price $500.00

King of Chilmark 20798
27 A. R. daughters
Archer of Chilmark 13376.
8 A. R. dtrs. 2 A. R. sons.
Antoinettes Queens Prize VII 416 lbs. E. 3 A. R. daughters. 3 A. R. sons.

Lilyett 33416, 431 lbs. G; 590 lbs. A; 703 lbs. A. 3. A. R. daughters.
Glendett of Pinehurst 13-901. 6 A. R. daughters. 1 A. R. son.
Lilly Ella Glenwood 22,-104. 4 A. R. daughters.

FOUR PINE FARM F. K. BABSON HINSDALE, ILLINOIS

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Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

High Class Bull Calf



Falstaff's Wyoming of Upland Farms 68406

This calf is not priced cheap but he is well worth what we are asking for him. He is sired by Langwater Stargazer who is a son of Langwater Steadfast and out of Langwater Crystal. He is out of Falstaff's Wyoming of Upland Farms, a cow that has steady producing ability. Her records are: 9445.6 lbs. milk, 443.03 lbs. fat as two year old and 14748.8 lbs. milk, 679.26 lbs. fat Class A. You want a bull at the head of your herd that comes from producing families. This calf is hard to equal. Write for price and description.

FLORHAM FARM, R. H. ALLEN, Manager, MADISON, NEW JERSEY

2 SONS OF LADYSMITH CHERUB
The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

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FOREMOST GUERNSEYS
2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.

J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Churches Co-operate in Promoting Health

(Continued from page 433)

figure into a statement apropos of our present "milk for health" campaign" and say "good health is the art of selecting good food and indulging in proper exercise."

Fourth—The House. A strange name for a disease, I admit, but it is the disease peculiar to civilization. When we took the Indians out of tents and housed them we killed them off faster than by bullets. I am arguing the value of fresh air. I am constrained to believe that the automobile is bankrupting us financially and corrupting us morally, but we must doff our hats to it when it comes to the matter of ozone. It has snatched semi-invalids from wheel chairs, served as a fountain of youth to the aged, carried the town back to the country where it ought to be, and rendered incalculable service in the matter of giving air to the closely confined. How well do we remember the windowless, dark closeted houses. Every means available, apparently, for keeping fresh air and light out of the house was employed. When pneumonia developed, the windows and doors were closed, even the cracks were stuffed and "air" was regarded as a vicious enemy. We have improved, yes, wonderfully, yet how many today are victims of the house?

These are but four of many kindred unusual diseases that afflict us. Permit me to suggest four wonderful medicines which are so palatable that, like Castoria, "the children cry for it". They are so obvious, however, and are so simple that the most of us are oblivious to their virtues.

Let me prescribe air, sunlight, water, and diet as really wonderful medicines. I have already set forth some of the virtues of fresh air. Dr. Crane says: "It is hard to overvalue fresh air. Its effects are far-reaching, ramifying in sanity and vigor to the most unsuspected cells of human activity."

We should realize that the comfort and efficiency of our days depend fundamentally upon the condition of this physical machine in which we are housed. What a source of enthusiasm is this body of ours! Strange wires run from it up to the spirit. It is our reservoir of vigor, the basis of clear thought, the fountain of inspiration, the tap-root of contentment. Let us make the following resolution: "I will not wrong it by excess, nor enfeeble it with idleness, but will treat it well since from it I expect so much."

As for "sunlight", interview the specialists in tubercular troubles. Visit tubercular sanatoriums and hear the patients talk of sunbaths and diet. What would our poor old earth do without "Dr. Sun"? Not only does he effect an annual resurrection, but some time soon our winter fuel will be "stored-up-sun".

Water! Diet! These two, and the greatest of these is ——? An eminent physician said recently, "Note the four X's"—Examination, Excretion, Exercise, and Excess.

I recall that pathetic wail from "The Ancient Mariner"—"Water, water everywhere, and not a drop to drink," yet more pathetic this,—"Water, water everywhere, and no one drinks enough."

Diet. I have observed some "on a diet" who must have spelled it "Die-eat". For ere long they would exclaim, "I'll eat it if it kills me," or "I'll die if I don't get something to eat." A funny platitude this—"It isn't what you eat that does you good, it's what you digest." I wonder after all if it isn't what we eat that does us good, and that, if we eat proper foods, we will have less trouble with our digestion. Did you ever hear this—"An apple a day, keeps the doctor away"? And this, "If you'll try drinking milk you'll feel fine as silk"? With apologies to Mr. Post, "there's a reason".

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Fond du Lac Co. Holstein Association

OFFERS GOOD HOLSTEINS

both pure-breds and grades from clean herds. If you want cows, bulls or calves for calf club work we can supply your order up to several car loads. Our prices are very reasonable.

CARL BRUGGER, Sec., Fond du Lac, Wis.

A Real Show Bull

First Prize Senior Bull Calf at Indiana State Fair, Watertown, Richland Center, Decatur, Ill., and sixth at Dairy Cattle Congress. His sire, Sir Pietertje Ormsby Korndyke is one of the greatest transmitting sons of old S. P. O. M. His dam, Aurora Una Mercedes has 22.40 lbs. butter from 564 lbs. milk, a record made under ordinary farm conditions. Ready for service and a real buy at $200.

H. A. BRACE and SONS, Lone Rock, Wis.

Herd Sire For Sale

A grandson of Duchess Skylark Ormsby born January 4, 1921. Dam has 706 lb. as a 2 yr. old. Average of 2 nearest dams 1,106.33 lbs. butter. Guaranteed right and gentle. Herd federal accredited. Write for pedigree and photo..

PRICED AT $150.00 if taken at once

JOHN A. WATSON, Spring Valley, Minn.

First Annual Sale Pure Bred Holsteins!

AT FARM — CLAIR F. LIMBECK

McGREGOR, IOWA, WEDNESDAY, NOV. 5, 1924

45 Pure Bred FEMALES, bred cows and heifers and unbred heifers. 15 Pure Bred BULLS

THE BLOOD OF MY TWO GREAT HERD SIRES:

Sr. Herd Sire—Pabst Korndyke Star, the bull whose first six daughters to be tested average over 900 lbs. of butter as 2-year-olds—an average unequaled by the first daughters of any other sire. He is, also, sire of this year's National Grand Champion, Johanna Rag Apple Pabst.

Jr. Herd Sire—Nockdair Canary Daisy Paul, son of the famous Grand Champion—Cedar Lawn Canary Paul.

All animals tuberculin tested and sold subject to a 60-day retest.

Write for information to

W. L. BAIRD, Sales Manager WAUKESHA, WISCONSIN

Waukesha County Holstein Breeders'

Annual Quality Sale!

60 PURE BRED Bulls

MONDAY

NOV. 17

Greatest opportunity of the year to select a herd sire!

85 PURE BRED Females

TUESDAY, NOV. 18

Selected carefully. We have traveled 1500 miles to select. Save money by buying at a selected sale.

Write for information to WAUKESHA CO. HOLSTEIN BREEDERS' ASS'N, Waukesha, Wis.

Washington Co. Breeders' Sale

AND

Oscar W. Hanson Dispersal!

Federal Accredited Herd

50 REGISTERED HOLSTEINS

40 FEMALES — 10 BULLS

White Bear, Minn., Nov. 1st

Consignors

OSCAR W. HANSON, Withrow, Minn.
ECHOLAND FARMS, White Bear, Minn.
JUNEWAY FARMS, White Bear, Minn.
ELMORE BROSIOUS, Stillwater, Minn.



PART OF THE HANSON HERD IN PASTURE

COMPLETE DISPERSAL of Oscar W. Hanson's Federal Accredited herd of thirty females, including many animals of splendid type and breeding.

All Cattle are from Clean Herds and Selling Subject to Retest

40 FEMALES

FIFTEEN DAUGHTERS of the 29-lb. show bull, LORD BOBS KORNDYKE PONTIAC, who was by the famous show bull, Roberts Abbekerk Pontiac, and from a 29-lb. daughter of Sir Gerben Pauline.

TWO DAUGHTERS of King Pontiac Portia, a son of King of the Pontiacs; one from a 1077-lb. sister to Pietertje Maid Ormsby.

THREE DAUGHTERS of the 1225-lb. bull, Piebe Longfield Champion, from granddaughters of King of the Pontiacs.

GRANDDAUGHTERS of King Pietertje Ormsby Piebe, Sir P. O. M. 14th, Sir Pietertje Ormsby Mercedes, Sir P. O. M. 37th and Sir Ormsby Hengerveld De Kol.

10 BULLS

A SON of Sir Korndyke Ormsby Piebe (sire of four 1000-lb. heifers) from a 37-lb. cow with 864 lbs. in ten months.

TWIN SONS of Sir Pietertje Ormsby Mercedes 43d (1250-lb. son of Sir P. O. M.) from an 815-lb. ten-month record daughter of Sir Korndyke Ormsby Piebe.

A SON of Sir Korndyke Ormsby Piebe from a 31-lb. daughter of Canary Fobes Bessie Homestead.

A SON of Sir Pietertje Ormsby Mercedes 43d from an 830-lb. ten-month record daughter of Sir Pietertje Ormsby Mercedes 41st. Next dam by Mooie Mutual De Kol.

GRANDSONS of Sir Pietertje Ormsby Mercedes 37th, Sir Pietertje Ormsby Mercedes, Dutchland Aaggie Tidy Prince, and King Korndyke Skylark Canary.

SEND FOR ILLUSTRATED FOLDER

TWIN CITY PEDIGREE & SERVICE COMPANY, Sales Managers, 211 Market Bank Building, MINNEAPOLIS, MINNESOTA

Green Co. Holstein Breeders' Ass'n

Semi-annual

FALL SALE

In the New Stock Pavilion, at Fair Grounds

NOV. 6-7 MONROE, WIS.

18 HEAD of the HIGHEST QUALITY **BULLS** That we have ever offered for sale. All serviceable age. 10 with A. R. O. records up to 30 lbs. 2 30-lb. bulls. 1 26-lb. bull, 958 lbs. of butter at 12 yrs. old. 1 26-lb. bull, record made as a 2-yr.-old. 1 23-lb. bull, record made as a 3-yr.-old. 1 21-lb. bull, record made as a 2-yr.-old. 4 more with good records.

80 Females All springers or with calves at side. Half of which are 2- and 3-yr.-old heifers.

AUCT.: EELLS, HOGAN, GIBBONS EVERSON IN THE BOX

FOR CATALOGUE WRITE

JOHN W. KEATING, Secretary MONROE, WISCONSIN

Holstein Sale --- Sparta, Wis.

Friday, October 31st, 1924

20 Pure Bred Springers and Milkers
40 Grade Springers and Milkers
20 Open Pure Bred Heifers
10 Serviceable Pure Bred Bulls

All Animals T. B. tested. F. E. BLAKE, Auctioneer

GEORGE J. WEINER, Secretary CHARLES VANDER SCHAAF

A Very Good Bull For Sale

7-DAY AND YEARLY RECORDS—INDIVIDUALITY

CARLETON SILVER BOW is a young bull we know will suit you. He was born Dec. 11, 1923. His dam, a daughter of Count King, produced 27 lbs. butter in 7 days and 917.58 lbs. in a year. His sire, Colonel Abbekerk Pontiac Segis, a son of Count, is from a 34 lb. 1,227 lb. dam. His two nearest dams average 31 lbs. in 7 days, 1,072 lbs. in a year.

He Is Priced To Sell. Write Today For Price, Pedigree, Etc.

CARLETON COLLEGE FARMS. Federal Accredited Herd NORTHFIELD, MINN.



This Handsome Bull For Sale -- $400

Six nearest dams average 1,007 lbs. butter in a year

Sire, SIR WALKER SEGIS HOMESTEAD, a show bull (31 A. R. O. daughters), a "PIEBE" son from a 1,230-lb. (former world champion) daughter of "COUNT".

Dam, MARIE PONTIAC PRIDE, 745 lbs. butter in 365 days as a junior two-year-old, while her dam made 1,016 lbs. butter as a four-year-old.

A TOP-NOTCH INDIVIDUAL WITH A SPLENDID PEDIGREE. Born August 26, 1923. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

FOR $100—Grandson of Sir P. O. M. 37th

Dam's cow testing association record 351 lbs. fat as a junior two year old in 10 mo. Grandam official record 700 lbs. butter 305 days at 10 years. Born March 6, 1924.

B. A. NORRIS, ANOKA, MINN.

75 *Selected* 75 HOLSTEINS

WILL BE SOLD

Oct. 29, Janesville, Wis.

At the Rock Co. Breeders' Sale

21 good, young, registered cows, fresh or close springers.
15 grade cows with C. T. A. records.
20 registered, bred heifers. Due about sale time.
4 registered, yearling heifers.
15 serviceable bulls.

JOHN W. JONES, Sec., Milton Jct., Wis.

Green County Holtsein Breeders' Association

Can furnish Holsteins. Choice grades and pure-breds, all ages, any number. Bulls of serviceable age. Calves for calf clubs. Reasonable prices.

J. W. KEATING, Sec'y, Monroe, Wis.

Before You Buy A Bull !

Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms

(In Waukesha County)

F. J. Southcott, Manager, Dousman, Wis.

Clean herd under State and Federal Supervision

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

BARGAINS FOR DAIRYMEN !

Pure Bred and Grade Holsteins !!

TO BE SOLD IN THE

Crozer Dairy Farm DISPERSAL

THURSDAY and FRIDAY **October 30-31** At the FARM

UPLAND, PENNA.

110 Purebred Holsteins **50 Heavy Milking Grades**

The six pure bred bulls to be sold include our own three herd sires and a son of each from a large record dam.

The pure bred cows have good records. Many of them have seven day official records up to 32 lbs. butter and up to over 800 lbs. milk. A large proportion of them have good, long time records made under ordinary dairy conditions without forcing. The grades are real producers, milking from sixty to seventy pounds daily when fresh. Many of the grades are by famous sires with a lot of production back of them.

LOCATION—Upland adjoins Chester, which is fifteen miles from the heart of Philadelphia. Chester is on the Washington Branch of both the Pennsylvania and the B. & O. Trolleys from Chester to Upland leave both stations and will be met by automobiles at Sixth St. in Upland both mornings.

JUST A NICE DRIVE BY AUTOMOBILE FROM PHILADELPHIA

SALE STARTS 10:30 SHARP BOTH DAYS. Some of the good ones will start the sale. BE ON TIME

JOHN P. CROZER, Upland, Penna.

BULL CALF BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

Don't Forget! ENOCH CARLSON DISPERSAL SALE! At ROBERTS, WIS., OCTOBER 31st

40 HEAD REGISTERED HOLSTEINS—33 females, cows due to freshen before December 1st. One of the sires used on this herd in recent years won first and second in his class at the following fairs and shows: New York, Connecticut, Iowa, Nebraska, Kansas and Waterloo Dairy Cattle Congress. A chance to buy individuality and production.

Bargains in Registered HOLSTEIN BULLS--- all ages

Ormsby breeding, large 7-day and year records. True type conformation. Tell us the kind of a bull you want.

Hargrove & Arnold, Norwalk, Ia.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—King Piebe Ormsby Mercedes, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and King Pietertje Mercedes Ormsby, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:

AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

BULL CALF

Born March 15, 1924. Dark in color. Sire: Chief Korndyke Johanna Ormsby whose seven nearest dams average over 1000 lbs. butter in a year. Dam: Johanna Bert De Kol Banostine; 698 lbs. butter in 365 days at 2½ years of age. Her dam, 722 lbs. butter in 365 days at 11½ years of age. PRICE $200. Pedigree and photo.

KEWAYDIN FARMS, R. 1
HERD "FEDERAL ACCREDITED"
J. A. Schmidt & Sons, Ladysmith, Wis.

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.

For Sale or Exchange

LORD FAYNE VALDESSA NO. 187263, proven sire. Dam's record seven days 30.61 lbs. Milk 630 lbs. Thirty-day record 125.49 lbs., milk 2,589 lbs. Write
SLIVKA BROS., Plainview, Illinois.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Ormsby-Homestead

HEIFERS and BULLS

FOR SALE

Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

A Clean Herd
Under Federal Supervision

MILFORD MEADOWS STOCK FARM
J. C. CORT, Mgr., LAKE MILLS, WIS.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. **28 REGISTERED HEIFER CALVES,** sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.
WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Ollie-Ormsby

Bull born Nov. 19, 1923. Ready for service. Sire—Sir Ollie Mooie Watson, 36-lb. son of Iowana Sir Ollie. Dam—24-lb. granddaughter of Pietertje Maid Ormsby now on year test. Bull is two-thirds dark, a good individual and reasonably priced. Write or visit us.
WALCOWIS FARMS Lake Geneva, Wis.

— PUREBRED —

HOLSTEIN HEIFERS

25 HEAD pure-bred heifers, 2 and 3 years old, bred to a 29-lb. bull. Due in November. Priced right for immediate sale.
RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y., Randolph, Wis.

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

OUR HERD SIRE
Toyon Galaxy Model Segis

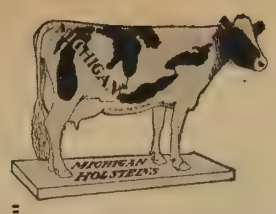
is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

BUY YOUR HOLSTEINS

where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. **JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.**



Buy Michigan Holsteins



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several carloads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.
L. C. KETZLER, R. 8 Flint, Mich.

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2 SERVICEABLE BULLS

One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $200 takes either bull. Herd under Federal supervision.
J. E. BURROWS Flint, Mich.

D. D. AITKEN, Flint, Mich.

Breeder of Holstein-Friesian Cattle

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

Sir Charlevoix Ormsby Finderne 377019

Whose dam holds Michigan state record with 1278.56 lbs. butter and is second highest cow in world for milk with 35,339.50 lbs. in 365 days. *Sons of his for sale from good 7-day and yearly record dams.*
J. B. JONES FARM, Romeo, Michigan

Livingston County Sales

C. T. A. SALE—80 HEAD above 300 lbs. fat. One of our leading herds will be dispersed—30 lb. cows, heifers, a 36 lb. bull, 2 consignment sales with high record cows. Our County is free from T. B. It has the world's greatest bull Ass'n. As many Holsteins as any county of its size in U. S. Come to Livingston County for Holsteins.
LIVINGSTON CO. HOLSTIEN-FRIESIAN ASS'N.
BURR J. HOOVER, Sec., HOWELL, MICH.

Why Take Chances When We Sell Only Proven Producers?

WE OFFER: Copland S S Echo born Feb. 24, 1922. Btr 7d 1 yr. 7 mo. 20.99 milk 410.1. Btr 1st 7 mo. (herd record) 418.31 milk 10,325.8. Net profit $94.95.
Due Feb. 22, 1925 by Sir Dutchland Colantha Denver, dams record 36.25, 1315.15.
PRICE $250.00 F. O. B. Send for picture and pedigree. **Herd under Federal supervision.**
SERRADELLA FARM, Oscoda, Mich.

A 30-lb. Bull

At a Bargain Price

King Pontiac Segis Lad De Kol 3d is 2 years old and the sire of some very promising calves. He was second among 25 calves at the 1922 Michigan State Fair and this year he was a prize winner as a 2-yr.-old. His dam made 30 lbs. butter from 700 lbs. milk in 7 days and his sire is a son of Sadie Gerben Hengerveld De Kol, 40 lbs. butter, 782 lbs. milk in 7 days, 157 lbs. butter, 3465 lbs. milk in 30 days. Sold subject to 60-day retest guarantee. Write today.
BAYNEWOOD FARMS, Romeo, Michigan

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

King Pontiac Burke Alcartra 203224

Senior Sire in the Kalamazoo State Hospital Herd

A son of King of the Pontiacs, the only double century sire, whose daughters include thirty-eight from 30 to 44 lbs. in 7 days and five above 1000 lbs. in a year.

His dam is a 30.9-lb. daughter of a 31-lb. cow.

King Pontiac Burke Alcartra is an excellent individual, resembling his illustrious sire in many ways, and has been at the head of the Kalamazoo herd a little more than a year.

His bull calves, grandsons of King of the Pontiacs, from A. R. O. dams for sale.

Send for our List of Bulls from Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

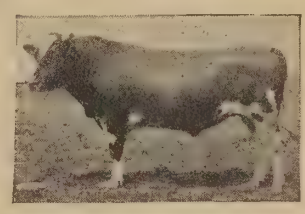
Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD

Send for List



MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

---

3 HIGH RECORD BULLS FOR SALE

One out of a 29-lb., 1108-lb. four-year-old daughter of King Hengerveld Model Fayne, a 30-lb. grandson of King Segis. One out of a 31-lb., 1185-lb. daughter of Fairview Pontiac Beets Korndyke. Both of these are sired by a 38-lb. son of Judge Segis. I am also offering a son of Sir Ormsby Pontiac Segis out of a 36-lb. daughter of King Segis Pontiac Superior. Write today if you are interested in a good bull. I will be pleased to send pedigrees on request.

LILLIBERK FARMS, J. F. Berkheimer, P. O. Box 241, DETROIT, MICH.

BE SURE TO ATTEND! **Western Wis. Holstein Breeders' Ass'n Consignment Sale!**

West Salem, Wis., Oct. 29-30, 1924

300 Head Registered Holstein Cattle 300

270 FEMALES — 30 MALES

Don't Forget the Date or Place. **Write for catalogs to O. G. CLARK, Mgr.; West Salem, Wis.**

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.

---

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.

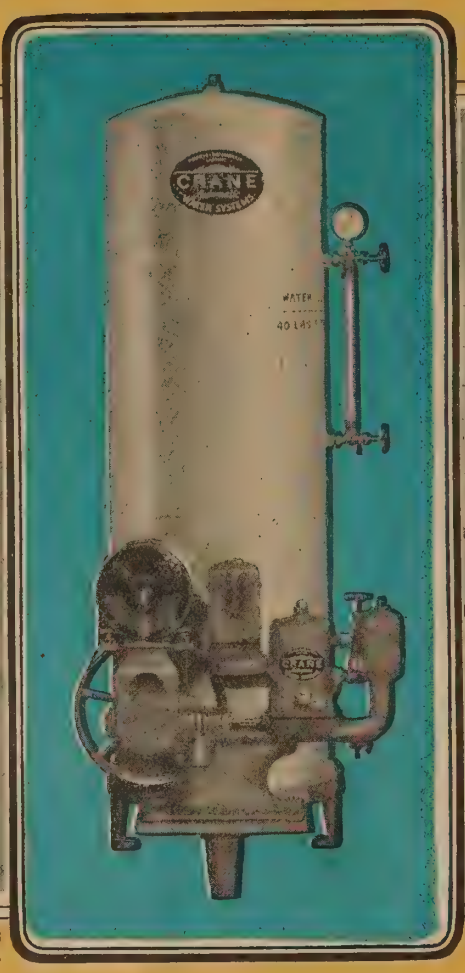
36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.
ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

CRANE AUTOMATIC WATER SYSTEMS



CRANE AUTOMATIC WATER SYSTEMS CAN BE HAD IN CAPACITIES RANGING FROM 200 GALLONS UP TO 6000 GALLONS PER HOUR





FOR THE HOUSE, TWO TYPES FOR THE ORDINARY AND DEEP WELL ELECTRIC OR GASOLINE POWER. A THIRD TYPE FOR LARGE USERS

The convenience and comfort of fresh running water costs less to have than to do without

An increasing number of farmers, thousands of them the country over, are finding that fresh running water, under pressure, actually *saves them money*, to say nothing of the finer comfort and health it provides in the home and throughout the farm.

Farmers in windy districts report that the saving in windmill repairs alone pays for a Crane System. Where the wind is low, they spend their time improving their crops instead of laboriously pumping water by hand.

Healthier, cleaner cows pay better

With plenty of fresh, cool water, cows make new production records and all kinds of stock thrive, yielding greater profits. Water, under pressure, *never gets stale*. The barn and milk house, the separator and cans are cleaned better in less time with a flood of fresh running water always on tap.

As dependable as city water supply

At the turn of a faucet fresh running water pours out for bathing and for washday. This comfort and pleasure are more than worth the few cents a day that pays for the gasoline or electric current consumed.

Crane systems pump from 200 to 6,000 gallons an hour from an open well, from cistern, spring or lake. Entirely automatic where electricity is available or driven by a smooth running, quiet gasoline engine. In every type and capacity Crane systems deliver lasting satisfaction at lowest cost.

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HOARD'S DAIRYMAN

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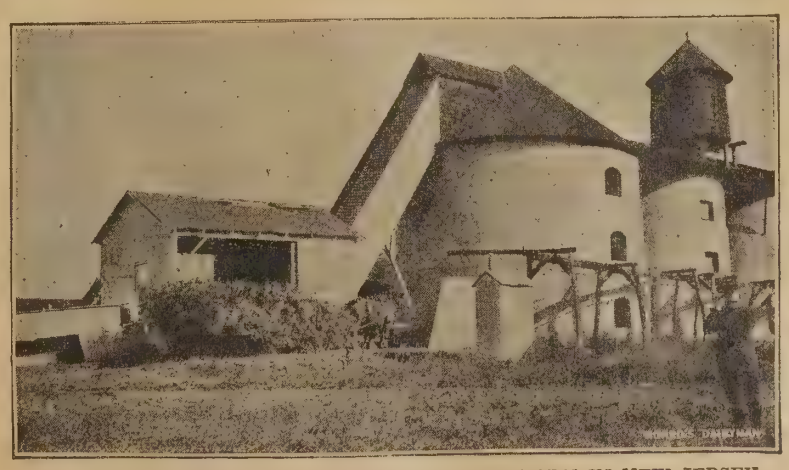
KEEPING UP FERTILITY ON DAIRY FARMS

A. W. BLAIR, NEW JERSEY

THE story of soil depletion is not a new one. Every farmer who has made a success of his business is fully conscious of the fierce struggle that was required to keep his yields from declining. Indeed in many cases they have declined in spite of this fierce struggle. If anyone doubts this statement let him go to the bankers and executive officers of insurance companies for its confirmation. Recently an officer of a prominent insurance company was asked why his company was no longer interested in farm mortgages in his state. The official's reply was: "Because the farmers have used up the fertility of the soil." If one uses up his principal, how can he expect to have any income?

More than 40 years ago the noted English scientist, Sir John B. Lawes, foresaw, in some measure, how America drew upon her natural fertility. He pointed out that the British farmer need not so much fear competition from American wheat grown by purchased fertility, as competition from wheat grown on the vast stores of natural fertility, which, he said, was much cheaper than any derived from artificial or imported sources.

But Sir John could not have fully realized how short would be the time, comparatively speaking, that would be required to exhaust this fertility. The very cheapness of this natural fertility of which he spoke, lead this nation into wasteful and extravagant methods of farming undreamed of by the older European countries. As a consequence there are no longer vast areas of unused fertile lands. The borders have been touched and the farmer must retrace his steps and put new life into the wasted lands. His declining yields and greater need for manures and fertilizers have told him, in no uncertain terms, of the changes that have been taking place. And his findings have been checked up and verified by scientific tests. For thirty or forty years some of the leading experiment stations of the country have kept a soil inventory—a careful record of the income and outgo of soil nitrogen under normal cropping conditions—and have found that there is a loss of nitrogen, even under conditions which are better than the average. With these facts in mind a large number of the farmers of this country are today honestly seeking for better methods of soil improvement.



FILLING THE SILO ON A COMMERCIAL DAIRY FARM IN NEW JERSEY

The problem for the dairy farmer is not so difficult as it is for the grain, tobacco, cotton, or truck farmer. All of these are selling crops which take much from the land and leave little to be put back, whereas the manure which the dairy farmer produces, if properly handled, will go a long way toward replacing the fertility taken out by the crops which he grows.

Good manure, properly handled, is the most wonderful fertilizer there is; it is for the growing crop what milk is to the growing calf or child—a perfect food.

A gentleman who has made a success in the nursery business, and whose people have been nurserymen for more than 150 years, was recently showing the writer his herd of beautiful Guernseys, and large barn filled with hay. In a manner that gave the impression of an apology, he explained that they put the dairy in "to help keep up the fertility of the soil".

Thus in addition to producing milk, the dairy becomes a fertilizer factory, taking raw materials such as hay, straw, cornstalks, silage, concentrates, etc., and turning out available plant food.

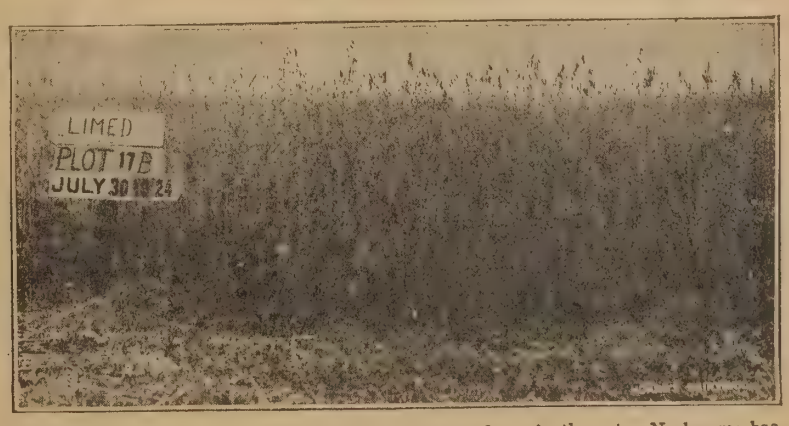
But even the dairy farmer must not depend on manure alone. The demand for nitrogen especially is great and since some loss is inevitable, not enough can be put back into the soil in this way. Full advantage should therefore be taken of the method of extracting nitrogen from the air by growing legume crops, both as green manures and as main crops. But such crops do not, like Topsy, "just grow". They, too, must have some attention. Alfalfa and clover especially and to a lesser degree nearly all of the legumes make heavy demands on the soil's supply of lime, phosphoric acid, and potash. If attention is not given to renewing the supply, the crops will ultimately fail. This has been abundantly demonstrated on some of the fertility plots at the New Jersey Experiment Station. Certain plots which have received no manure or commercial nitrogen for the last 17 years or more, but which have received liberal supplies of lime, acid phosphate, and muriate of potash, persist in growing a fair crop of clover even where none was seeded. It comes as a volunteer crop in the grain and following timothy (not timothy and clover). Attention is called to this to show how important it is to first make the conditions favorable for the growing of such crops. They can then be grown without trouble and become a most important factor in soil improvement. Thanks to the volunteer clover, in the case just cited, the plots yielded over 50 bushels of shelled corn to the acre in 1923. The plot without lime and minerals, and therefore without clover, is now typical "worn-out" land.

On another piece of land, soy beans were grown continuously for 10 years without a pound of manure or commercial nitrogen, but lime and mineral fertilizers (phosphate and potash) were used in liberal amounts. The yield of beans was maintained at a good level during this time, and in 1923, still without applied nitrogen, the land yielded about 54 bushels of corn to the acre. An adjoining piece of land treated in the same way with the exception of the lime treatment, practically ceased to produce beans at

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CORN—POTATOES—ALFALFA, A GOOD ROTATION FOR A DAIRY FARM



The dark effect in the picture is due to volunteer clover in the oats. No legume has been seeded on this land for more than 16 years, but generous use has been made of lime, phosphate, and potash.

Nutrition Dairy Barn Completed

S. R. WINTERS, Washington, D. C.

THE largest dairy barn owned by the federal government has been completed for the Dairy Bureau of the United States Department of Agriculture on its experiment farm at Beltsville, Maryland. Costing approximately $20,000, this structure, designed by W. D. Chandler, architect of the Bureau of Animal Industry, and K. E. Parks, dairy engineer, is 36 by 118 feet in dimensions. It is two stories in height and is built of a combination of tile and concrete, with a gable roof.

The newly completed building will serve the two-fold purpose of containing an experimental laboratory and accommodating a herd of dairy cows. As a matter of fact, this structure was designed and erected largely in response to the needs for an animal nutrition laboratory. The significance of the experiments of Dr. E. B. Meigs of the Dairy Bureau, which have indicated that dairy cows demand calcium and phosphorus in addition to a regular ration, emphasized the necessity for a combination nutrition laboratory and dairy barn. Here, literally, certain cows will be separated from the common herd in the interest of obtaining knowledge pertaining to the feeding of these minerals in extra allowances as a measure of increasing the production of milk and butterfat.

Under the previously existing arrangements at the Beltsville Dairy Bureau experiment farm, the cows being subjected to feeding tests including additional amounts of calcium and phosphorus could not be disassociated from other members of the government dairy herd, which made difficult the control of these important experiments. For instance, after making analysis of the feeds used in such tests it was not advisable to allow the members of the common herd to partake of such selected rations and yet the division could not always be effected. A lack of space made it necessary to have the various cows of the herd mingle together.



INTERIOR OF NUTRITION BARN, BELTSVILLE, MD.



THE $20,000 DAIRY OR NUTRITION BARN RECENTLY COMPLETED AT BELTSVILLE, MD.

The new building can accommodate thirty-two dairy animals and there are three rooms reserved for a laboratory, with a basement in addition. The floor over the cows is built of fireproof materials, consisting of a combination of tile and concrete. This is a very desirable feature, since in the event of an outbreak of fire it is possible to remove the animals from the barn before they succumb to the flames. This $20,000 dairy barn has been equipped with special grain blending and handling equipment. This provision will enable dairy husbandmen and nutrition experts to obtain feeds of uniform content and quality. This will further facilitate the analyzing and measuring of the proteins and other constituents in exact proportions.

Fitting, is it not, that this pretentious nutrition laboratory and dairy barn should be completed and dedicated simultaneously with the passage of congressional legislation elevating the Dairy Division from an integral part of the Bureau of Animal Industry to a full fledged bureau of the United States Department of Agriculture? A "barn warming" at Beltsville, Maryland, on June 7, participated in by workers of the Dairy Bureau, commemorated the completion of the largest dairy barn built on any of the government experimental projects. This same "barn warming" radiated jubilance over the signature of the President to a bill which gives recognition to the term "Dairy Bureau".

A High Point at the National Dairy Exposition

WILBER J. FRASER, University of Illinois

THE National Dairy Show that has just closed at Milwaukee, Wisconsin, is becoming more and more a great power for education along dairy lines. When it started 18 years ago it consisted of the showing of pure-bred dairy cattle and a comparatively small amount of dairy machinery. Since that time these departments have not only grown tremendously, but there have been added many educational features of a high order.

The one exhibit of the whole National Dairy Show that appealed to me the strongest in bringing out the great fundamentals of success in economic milk production consisted of 200 grade cows in one barn. These cows were from Wisconsin Cow Testing Associations and came from various parts of the state. In order to be eligible to this show each mature cow must have produced at least 350 pounds butterfat in one year. Cows under four years of age must have produced at least 250 pounds fat. This group of cows consisted of grade Holsteins, Guernseys, and Jerseys—fine specimens were these honest, broad, deep cows brought right from their homes just as they were, doing their best day by day in their great life work in producing economical human food of the finest quality. These cows might *well* be called "the foster mothers of the race" for every one had proved her ability in high economical production.

Upon reaching the show grounds, I went first to this barn, and during the four days spent at the Dairy Show, I found myself going back again and again to this splendid collection of grade cows, looking over the individuals, studying their records, and pondering what it all meant—the solution of successful dairying in the future—the economical production of milk. Only as dairying is based upon economic principles of good individual cows and their economical feeding, can it permanently endure.

The Most Expensive Animal

As one approached this cow testing association barn, his attention was attracted by a wire pen on which was a label reading, "The Most Expensive Animal on the Farm", and in the pen was the smallest, runtiest, speckled scrub bull I have ever seen. This bull was in striking contrast to the fine pure-breds that must have sired the excellent grade cows inside the barn.

As one entered the barn, on the left was the headquarters of the cow testing association exhibit with some important and striking cartoons and sayings on the wall as follows: "Are You Milking Cows for Exercise or Profit?"; a cartoon showing a poor, tired dairyman chained to a poor cow, being dragged around wherever she chose to lead him; a clock on the wall had the hands removed, with the following below it—"Running a Farm Without Records is Like Running a Clock Without Hands".

On the same side of the building farther on was a home-grown feed exhibit put up by the University of Wisconsin, showing the importance and economy of feeding cows on home-grown feeds.

On the right one was met with a string of cows, each individual representing the following:

1. The average cow of the United States which produces 160 pounds of fat.
2. The average cow of Wisconsin which produces 190 pounds of fat.
3. The average cow in all Wisconsin cow testing associations which produced 273 pounds of fat.
4. The average cow in the highest Wisconsin cow testing association which produced 341 pounds of fat.
5. The highest herd average in a Wisconsin cow testing association which was 534 pounds of fat. This herd consisted of 13 cows.

These records illustrate in a most striking manner how the production of cows can be increased by better breeding, feeding, and care. The average of all cows in the Wisconsin cow testing associations being 113 pounds above the average of the cows in the United States, while the production of the cows in the highest cow testing association is more than twice that of the average cow of the United States.

Daughters and Granddaughters of a Good Sire

Another striking exhibit in this barn was that of nine grade Holstein cows from the herd of Rockwell and Katterhenry of Rock County, Wisconsin. The nine cows were all by the same sire, Mercedes Ladd Johanna Son. The best one of these cows produced in one year 23,374 pounds milk and 804 pounds fat, and these nine cows averaged 14,365 pounds milk and 496 pounds fat. These were all fine, large, deep, beautiful cows showing in a marked way what can be done by proper breeding, as this herd had been graded up from common or scrub cows only four generations before. Another significant thing brought out by this exhibit was that the sire of these excellent cows had been sold for beef and killed before it was known what fine producing daughters he was siring—a tragedy that too often occurs. The oldest of these nine cows was eight years, and the youngest was six years.

Next to these cows were exhibited nine of their daughters sired by Ormsby Pontiac Maplecrest. Only six of these had finished a year's record, and these six produced an average of 8,742 pounds milk and 306 pounds fat. These were fine, large heifers of excellent quality, and showed that the high production of this herd would be continued.

This herd was run on pasture during the summer and fed during the winter 30 pounds of corn silage, 10 to 15 pounds of alfalfa hay, and a mixture of farm-grown grains both winter and summer.

There were six rows of cows in the barn. To the right of the Holsteins came the grade Guernseys, and beyond those were the Jerseys.

Nine of the grade Guernseys exhibited produced an average of 467 pounds of fat in one year; 20 grades of all ages produced an average of

(Continued on page 490)

BUILDING SUCCESS ON QUALITY

FRANK BUNCE, WISCONSIN

THREE years ago when John Ramsay settled upon a dairy farm which during twenty-five preceding years of tenant farming had never proven over-profitable to its managers and proceeded to invest more than $2,000 in constructing a sanitary and modern milk house and in machinery designed to increase the purity and cleanliness of his milk, neighbors shook their heads and uttered ominous predictions of disaster.

Fancy dairying, they declared, wouldn't pay in Northeastern Wisconsin. People, they argued, wanted cheap milk and the man who was in a position to sell milk pure enough and rich enough to meet the requirements of the statutes laid down by the city and state, and at the same time undersell his competitors, would secure the most patronage.

In a scant three years John Ramsay has proven the fallacy of that argument. Today he charges 50 per cent more for his milk than any of his competitors; and, it is significant, he is selling all the milk he can produce.

The explanation, Mr. Ramsay points out, is that people are willing to pay more for a superior product.

"My customers are not all from the richer classes," he declares. "People of moderate means are willing to pay more for pure milk to safeguard the health of themselves and their children."

The career of Mr. Ramsay has not been unattended by difficulties. Some whom he approached as prospective customers expressed their frank opinion that he was demanding too much money for his product. Others were unable to appreciate the superior merit of his product. Others declared that they had "been using pasteurized milk for years" and that "the old way" was good enough for them. For six months Mr. Ramsay's efforts were directed mainly toward public education, through advertising and personal letters; and for the first few weeks he made daily trips to the city with three bottles of milk in his truck.

Slowly his milk route was enlarged. People receiving his personal sales letters and circulars, which he was careful to make brief, interesting, and to the point, began to take interest in his project. Customers told neighbors and friends of the excellence of his product. Over their tea tables women discussed his venture; at meetings of women's clubs his sanitary measures were discussed. At the end of the first year he was serving fifty customers; at the end of the second more than a hundred, and his daily sales have increased ever since.

The fame of the Ramsay farm spread rapidly. Visitors from the Twin Cities of Marinette and Menominee began to stream out to the Ramsay farm. Agricultural authorities from rural districts, towns, and cities in a radius of 100 miles attracted by reports of the unique sanitation methods being employed, often travelled long distances to inspect the Ramsay barns and herds; and tourists often turned off the main highway to talk for a few minutes with this young farmer with an ideal.

"I wish that every one of my customers and prospective customers could visit my farm," Mr. Ramsay said: "I never had a man come to this farm with an open and unprejudiced mind who hasn't been sold on my methods."

It is true that to appreciate the superior quality of the Ramsay farm milk, one must first visit the farm and trace the milk from the udder of the cow to the doorstep of the purchaser. The visitor notes two things of paramount interest to exponents of sanitation and germ control: first, that not a human hand touches the milk from the time it flows into the pail until it is measured out into bottles; second, that the milk undergoes no less than eight distinct processes designed to free it from dirt and harmful bacteria.

At milking time the cows are driven into cool, airy barns, washed and brushed scrupulously clean. Milk is drawn into covered and screened pails, emptied into sanitary containers, cooled, purified, capped, and bottled automatically. During the entire process not a reasonable chance has been given dirt or bacteria to get into the milk, for bottles, cooler, and bottling machines are washed twice daily.



JOHN RAMSAY

There is no secret about Mr. Ramsay's success. To begin with, he laid the foundation for his experiment by accumulating a broad fund of general and specialized knowledge of the dairy industry. Following his graduation from the agricultural department of the University of Wisconsin, he visited many of the largest dairy farms in Wisconsin to familiarize himself with the practical side of dairying. To become better acquainted with technical advanced dairying he assembled and digested a veritable library of up-to-date volumes and current agricultural periodicals. With a rare knowledge of his chosen profession he combines the will to work and the ability to co-ordinate the work of head and hands that spells success.

To those who would follow his lead, Mr. Ramsay gives this terse advice: "Believe in yourself and your work. Set a fair price and hold fast to it without regard for competitors. Put your hand to the plow and work like blazes with your eye on the goal."



THE BARNS AND MILK HOUSE ON THE RAMSAY FARM

What Cow Testing Will Do for the Dairy Farmer

HERMAN GRABOW, CALIFORNIA

WE shall attempt to give a clear and concise article on the cow testing association. First, we need a cow tester—for that is wherein the biggest differences lie—and a good one for he is the cornerstone in the foundation of a successful association. He either makes or breaks it. As he is responsible for all the records, test, etc., and the officers merely transact routine business once or twice a year, it can be seen that upon him alone rests all responsibility of the success or failure. Especially is this true for a new association. A good tester is indispensable for any association that wants to accomplish things.

We have agricultural colleges, dairy papers, short courses, etc., and great as these are we know that there are thousands of average dairymen who receive no help from any of these. In Minnesota, for instance, the average dairymen raise more timothy than alfalfa (in fact some do not believe in alfalfa); the average cow is a scrub or a grade cow; oat straw and corn stalks constitute a part of the roughage; cows freshen any time; pasture is shortlived, little grain is fed; cows are not fitted before freshening, and consequently the average cow produces only 160 lbs. of fat which is not profitable. The problem is simple. We have an average dairyman and we know that certain practices will turn average dairying from an unprofitable enterprise to a profitable one. How shall it be done? Will bulletins, short courses, fairs, lectures, and dairy magazines do it? No, three times no. Bulletins have many good things in them but they lack one thing that is of vital importance to a dairy enterprise and that is the human one. For the tester is always on the job noting just what is needed at one farm and what at another. We are all familiar with the saying that a chain is as strong as its weakest link—how does that apply to dairying?

Chemists know that to produce certain results every ingredient must be present in the correct proportions. In other words, that which is missing is the limiting factor whether it be totally or partially absent. Now in building up a profitable dairy herd the thing to guard against is these limiting factors. A dairyman may have the best of cows, of feed, and yet be doing some one thing that limits his success. He cannot see it because it is right before his eyes—whereas a tester, visiting many other dairymen, is constantly looking out for possible defect, and sees them at once. Such a service is easily given by the tester and is invaluable to the dairymen. There would be no other practical way for the dairyman to receive this information.

In Parkers Prairie last year we had a good demonstration of the feeding question. Queen, a grade cow, owned by W. Wilke, freshened in November, 1922. When tested in December she milked 24.5 lbs. per day. Her feed was insufficient and it was increased according to the regular standard rules. In January she produced 27.7 lbs. per day. Again her feed was increased. In February she gave 31 lbs. Again her feed was increased and in March, four months after freshening, she produced 32 lbs. of milk per day or an increase of 33%. Such an increase on a cow and in a herd owned by a dairyman known in the community does more to convince skeptics of the value of feeding better than a thousand bulletins.

Gets the Dairymen to Co-operate

In order to form an association for testing cows the various dairymen in the community must co-operate. They all sign up binding themselves to test for one year and it is an easy matter to work together in other ways. One of these is co-operative buying of feeds. Up to last year the dairymen of Parkers Prairie had never bought a car load of feed co-operatively. Due to testing, a twenty-five ton car of oil meal was shipped in at a substantial saving to the dairymen.

The outstanding achievement of the cow testing association at Parkers Prairie, during its first year, was a community appreciation of dairying; of the profit difference between a 100-lb. cow and a 350-lb. cow, and a spirit of co-operation. When we have a community, from the banker to the hired man, honestly interested in any association it has a wonderful opportunity for success. The local newspaper each week printed news items concerning the association and each month published the reports on the cows. Also an article prepared by the tester on feeding of the cows was printed and when the first year was up the tester in a very short time solicited these community men in town and obtained sufficient funds to publish 1,000 copies of a report on the year's work of thirty-two pages.

In the spring of 1923 the county agent put on an alfalfa campaign. The testing association was back of it. The community was too. The banks paid for six hundred copies of an Alfalfa Special which was distributed to the farmers. As a result, at least one thousand new plots of alfalfa were started as an experiment. A few months later, when clover and timothy were knee high to a grasshopper and the alfalfa going strong, more than one dairyman remarked: "Guess I will put in ten acres next year." To put anything across you must have the community spirit, and it certainly was in evidence at Parkers Prairie.

I say that testing dairy cows is one of the absolutely essential things in the advancement of any breed or any herd. It is the yard stick that measures the degree of success achieved in the up building of production, and that is what the dairyman must have.

Gasoline Engine Troubles and Remedies

R. U. BLASINGAME, PENNSYLVANIA

ALTHOUGH the fuel tank may be full, yet the engine may not go. Some of the common fuel system troubles are discussed below and illustrations shown so that one may grasp the ideas easily and quickly. Remedies are important although not always in the province of the layman to correct. Don't forget that the instruction book can be read with profit.

1. The Carburetor. By opening the drain cock under the carburetor one can tell whether the carburetor is getting gas or not. If fuel flows out freely, the fuel system is in good shape. It is a good idea to drain the carburetor once in a while. This gets rid of water and other foreign matter which may collect in the bowl of the carburetor. If fuel does not flow out of the drain cock under the carburetor, run a wire through it. It may be stopped up. Fig. 1 shows the carburetor pet cock opened.

2. Fuel Screen. Fig. 2 shows one of the screens in the fuel line. If this screen should become covered with trash it will prevent the gas from flowing. The screen can be removed and washed off. The screen is placed in the line to prevent trash entering the carburetor. The "instruction book" ought to show the location of the screen or screens, if more than one, and give information for removing them.

3. Fuel Supply Pipe. By disconnecting the gasoline supply tank from the top of the vacuum tank to the tank on the rear of the car and blowing through it with the tire pump will clean it out in good shape. When replacing the supply pipe be sure that the screw connections are tight. It is a good idea to put soap or shellac on the screw threads to insure a tight joint. Fig. 3 shows the use of the tire pump to clean out the gasoline pipe.

4. A Vacuum Tank. If the engine stops or does not start, and the drain at the bottom of vacuum tank shows no gas, remove the plug from the top of the tank and fill with fuel, as shown in Fig. 4. If the engine runs until this supply is exhausted then stops, something may be wrong with vacuum tank.

If a small amount of gas escapes from the vent pipe on top of the vacuum tank, once in a while, no harm will be done and no adjustment is needed.. However, if the vent overflows regularly the air hole in the gas tank filler cap may be stopped with mud from the road or grease from the hands.

If fuel leaks from the vacuum tank proper, the cause may be from:

a. The connection to the carburetor from the bottom of the vacuum tank may be loose. Put soap or shellac on the threads and draw up the nut.

b. There may be a leak in the tubing. Solder will stop this. The tubing may split or a hole may rub through.

c. A leak may occur in the outer wall of the tank. Solder it shut.

5. Suction pipe loose. The two arrows at Fig. 5 show the connection of the section pipe from the carburetor intake manifold to the top of the vacuum tank. If the upper connection, on the carburetor intake, is loose the suction or pumping action of the pistons will not draw the gasoline from the rear tank. This is also true of the connection at the top of the vacuum tank. Put some soap or shellac on the threads and pull them up tight. In case the threads are worn or stripped, secure new ones, oversize, and have the tank connection tapped out larger.

So much for the section tube connections. One will notice a lower pipe from the bottom of the vacuum tank to the carburetor in Fig. 5. If the connections at these two places become loose, gasoline will drip out and the vacuum tank will be drained. These joints can be tightened in the same manner mentioned above.

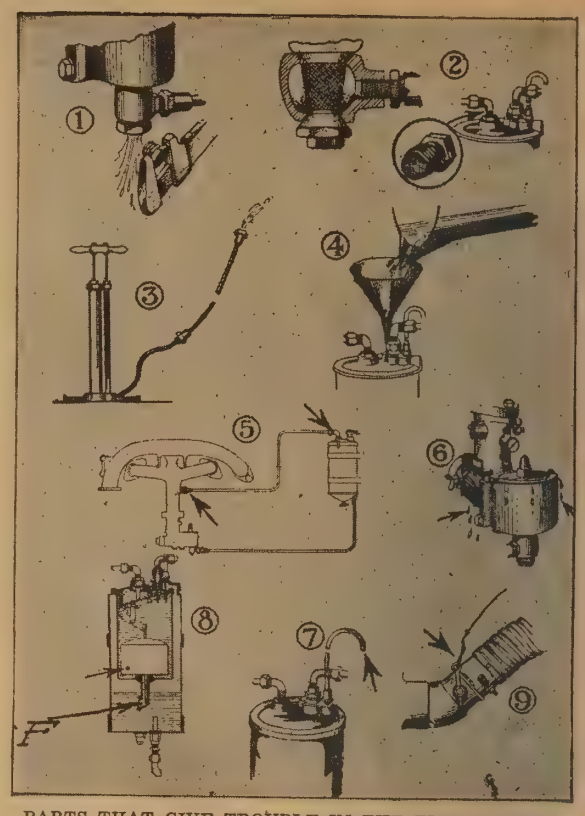
6. Carburetor Floods. The gasoline is supposed to be at a certain level in the float bowl. If it gets too high it will drip out. This may be caused from several things:

First: Trash may get by the screens and lodge under the float valve. This will allow the float bowl to become too full, thus dripping will occur. By removing the cap over the float valve one may press down on the valve and twist it around so as to dislodge any trash collected there. If, after holding the float valve down for awhile the gas quits dripping, one is quite sure that the valve is in good shape. The trouble must be in the float not working right. However, if the gas continues to drip, the float valve needs grinding or may have to be removed. This little valve can be ground by placing valve grinding material on it and twisting around on the seat with slight pressure. After grinding in this manner, one must make a slight adjustment due to the fact that the valve is slightly shorter and the seat slightly deeper than before.

Second. If, as mentioned above, pressure on the float valve stops the leak, the float must be out of order. Floats are commonly of two types, (a) cork, and (b) hollow metal.

The cork float is usually coated with a very thin layer of shellac. If the shellac covering breaks, the fuel enters and causes the cork to become "water logged", so to speak. It will not float in this condition. It can be removed and coated by dipping in a very thin solution of shellac. Before coating the float, it is well to dry it out thoroughly by placing it near a stove or hot radiator to drive off the liquid.

The hollow metal float may spring a leak. This can be discovered by placing it in a bucket of hot water. If a leak is present, bubbles will be seen coming from the hole. To get rid of any fuel which may be in the float, punch a small hole into the top and bottom to be sure that all the liquid escapes. Then solder up all the holes using a small soldering iron and a small drop of solder. Heavy lumps of solder may make the float too heavy. After the soldering is finished, again test the float in hot water for leaks.



PARTS THAT GIVE TROUBLE IN THE FUEL SYSTEM

7. Vacuum Tank Air Vent. The air vent, to the lower portion of the vacuum tank, is indicated by the arrow in Fig. 7. This vent maintains atmospheric condition in the lower chamber. Also it serves to prevent an overflow of gasoline in descending steep grades. This vent may become stopped in some way or other. Run a wire through it.

8. Leaky Vacuum Tank Float. One can remove the top of the vacuum tank and take out the inner tank shown in the top of Fig. 8 by the arrow. Take out the screws and run the blade of a knife carefully around the top between the cover and the body of the tank. There is a paper gasket which is usually shellaced on. When replacing this be sure to shellac it. Shellac can be had at any hardware store or garage. This joint must be air tight. The float, to which the arrow points, Fig. 8, must be air tight. They sometimes develop a leak. Dip the float in a bucket of hot water, as described above in respect to the hollow metal carburetor float. Air bubbles indicate holes in the float. Use only a small amount of solder, as large amounts will make the float heavy.

A leaky heavy float will allow too much gas to collect in the vacuum tank and be drawn into the carburetor manifold which will choke down the engine, carbon it up, cause loss of power, and the car will use too much fuel.

It is well to test this float in hot water even though the garage man fixes it. They are not always inclined to do a good job. If one knows what is needed, one stands a better chance of getting a good job.

Another thing, the flapper valve "F", Fig. 8, may be held open on account of trash collecting on the seat. This would render the valve imperative. In order to discover whether this valve is out of order or not, first plug up the air vent seen at the arrow, Fig. 7. Detach the tubing running from the bottom of the vacuum tank to the carburetor shown in Fig. 5. Start the engine and hold a finger over the opening under the tank. If the suction is felt continuously it is evident that there is a leak in the connection between the tank and the main gas tank, or that the flapper valve "F", Fig. 8, is held off its seat thereby letting air into the tank in place of gas.

When the top of the vacuum tank is removed, as mentioned above, the flapper valve "F" can be inspected. Often this valve can be made to seat properly by tapping on the side of the tank. In case this valve is worn it can be replaced at small cost.

9. Carburetor Choke Shut. The carburetor choke valve shown by the arrow in Fig. 9 generally has a spring to hold it in open position. If this spring becomes broken or loose, allowing the valve to shift around, the carburetor will be choked and stop the engine. The wire attached to this choke valve is used to close the valve when starting the engine. When released it must go back to "open" position to work properly.

Jersey Testing at Beltsville

During 1920 and 1921 a herd of Jersey cattle was assembled by the Dairy Division of the U. S. Department of Agriculture to be used as a foundation herd in the breeding investigations. Several of the well known families of Jerseys are represented in this herd which now numbers approximately 75 females.

In order to determine the producing ability of these animals the practice is to conduct Register of Merit tests on all individuals in the herd. Records of members of successive generations are to be compared as a measure of progress, and for this reason all tests are made under conditions which are as nearly comparable as possible. The cows freshen in average condition, are milked three times a day, and are fed a standard grain ration. Grain feeding is regulated according to production, and beet pulp, when available, is fed with the grain. Alfalfa hay and corn silage are the roughages used.

The aim is to test each animal during her first lactation period and again after 5 years of age. This routine is occasionally interferred with by breeding troubles, but all normal cows are receiving identical treatment.

Since the beginning of the project, 32 cows and heifers have completed a total of 36 records. The average production is 9293 pounds of milk and 518 pounds of butterfat. An analysis of these records according to age is necessary in order to make the story complete, and the following table gives this information:

Class	No. records	Av. milk	Av. fat
		lbs.	lbs.
2 years old	15	7823	445
3 years old	9	8986	512
4 years old	4	10218	547
5 years old and over	6	11933	649

This is not a selected group, as each animal calving normally is tested once as a heifer and again after 5 years of age. Conditions for all records are as nearly uniform and comparable as it is possible to have them, and extremes of conditioning and feeding have been avoided.—M. H. FOHRMAN.

Dogs bark and the wind carries it away.—Proverbs of Russia.

Jersey Wins Second Gold Medal

Torono's Marigold Pride 425794, a five-year-old Jersey, has won her second gold medal for heavy production, with calf, and has greatly strengthened her reputation as an outstanding dairy cow.

In her last test, recently completed, Pride produced 718.29 pounds fat and 13,918 pounds milk in 365 days and carried calf for 228 days of the test.

Torono's Marigold Pride is owned and was tested by Mrs. Florence L. Heberding of Ohio.—American Jersey Cattle Club.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
S. D.	Hamlin	Sept.	G. S.	42.3	P. C. Smith
Mich.	S. Emmet	"	G. G.	53.7	E. J. Hyatt
"	Musk.-Ravenna	"	G. H.	54.2	J. Spoelman
"	Remus	"	J.	60.9	C. Mowen
"	Branch Co.	"	H.	55.9	W. B. Pottes
"	E. Oceana	"	R. J.	52.4	E. Chase
"	N. Allegan	"	G. H.	62.4	F. W. Miller
"	Leelanau	"	R. H.	82.9	R. Lautner
"	Berrien-Cass	"	H.	61.6	Emmanuel Col.
Minn.	Northrup	"	G. H.	97.6	E. J. Carney
Ill.	Du Page Co.	"	R. H.	65.0	C. O. McChesney
"	Lake Co. 1	"	R. B. S.	83.1	Hawthorne Farm
"	Ogle Co.	"	R. H.	71.2	Rock River Farms
"	Mc Henry Co.	"	G. H.	53.0	W. Whitmus
Md.	U. Montgomery	"	R. H.	74.4	Mt. View Farm
Md.	N. Montgomery	"		59.7	R. J. Burdette
Calif.	Kern Co.	"	H.	81.2	J. L. Sebastian
Minn.	Pine Co.1	"	G. H.	59.8	E. G. Strean
Mont.	Bitter Root	"	R. H.	72.6	Ford & Hollister
Mich.	Ionia-Lake Odessa	"	R. J.	64.0	J. L. Carter
"	Oscoda 1	"	R. H.	56.3	I. Seidner
"	W. Allegan	"	G. H.	60.5	C. S. Methven
Wis.	Bruce	"	G. H.	54.1	Mrs. F. Daniels & Sons
"	Dunn Co.1	"	G. G.	65.5	E. Blakely
"	Westby Jersey	"	G. J.	66.9	A. Hegge
"	Spr. Valley	"	G. G.	59.1	R. Rudesill
"	Shawano-Mar.	"	G. H.	58.1	A. Pukall
"	Neillsville 1	"	G. H.	58.5	F. Appleyard
"	Knapp	"	R. H.	55.5	Hansman & Wilcox
"	Eagle Point	"	R. H.	50.7	E. Weisenberg
"	Denmark	"	R. H.	53.2	P. Olsen
"	Iola	"	R. G.	50.6	J. G. Erickson
"	W. Salem-Bangor	"	R. H.	59.5	J. D. McDonald
"	Withee	"	G. H.	65.9	F. Adams
"	West Bend	"	G. H.	65.9	C. Klunke
"	Pew.-Sussex	"	R. G.	70.0	G. McKerrow
"	Mil.-Edgerton	"	G. G.	57.9	G. Holliday
"	Leo.-Pella-Tilleda	"	G. H.	67.5	Mrs. E. Dey
"	Marion	"	R. H.	63.9	E. Fetzer
"	Byron	"	R. H.	92.2	R. G. Thurman
"	Clinton	"	R. H.	66.3	Rock Co. F'm.
"	Cen. Monroe	"	G. G.	60.3	W. Hubbard
"	Lakefield	"	R. H.	63.1	F. Ormbruster
"	Bloomer 1	"	N.	54.4	O. Slott
"	Marshfield 2	"	G. H.	55.1	M. Schiferl
"	Foot.-Evansville	"	R. H.	66.1	W. Lewis
"	Alma-Coch.	"	G. H.	46.2	P. Haase
"	Clintonville	Aug.	G. H.	52.8	J. Ruckdashel
"	Hazel Green	Sept.	G. H.	74.0	G. C. Coates
"	Ham.-Baldwin	"	G. G.	50.0	O. Garlid
"	Elroy	"	N.	67.3	E. Kimball
"	Stan.-Cadott	"	G. G.	55.3	G. Schmidt
"	Tomahawk	"	R. H.	103.6	Makida F'ms.
"	Wrights.-Greenleaf	"	G. G.	65.3	W. Gonnering
"	Allen.-Kohls.	"	R. H.	79.1	L. Pamperin
"	Spr. Green	"	G. H.	51.7	Schwartz Bros.
"	Mon.-Gil.-Modena	"	G. J.	62.4	A. K. Larson
"	Stratford	"	G. G.	56.4	H. E. Katterhenry

Association Notes by Testers

Westby Jersey, Wis.: Many members are feeding their cows grain and hay. Several farmers showed cattle at the Vernon County Fair and won many first prizes and grand championships. This association also furnished the American Jersey Cattle Club with three cows for their exhibits at the National Dairy Show. Last month the creamery paid 42c a lb. for fat.—H. Oehmcke.

Leopolis — Pella — Tilleda, Wis.: Five barns were whitewashed last month and one concrete barnyard was built.—W. F. Belter.

Bloomer No. 1, Wis.: Several members attended the National Dairy Show. One new silo was built. Separators were found to be doing very good work. The condensery paid $1.75 per cwt. for milk in September. Milk retailed for 7c per quart and butter for 42c per lb.—C. Wirth.

Knapp, Wis.: Of the 446 cows tested last month, 16 produced 40 lbs. or more of fat. Creameries paid an average of 42c per lb. for fat, the cheese factory 45c.—G. Peterson.

Denmark, Wis.: Every test made last year in this association was made in the nature of a surprise test. This plan works fine here. This association will complete its third year's work November 30th. Many farmers have alfalfa pasture. The high cow and high herd were on alfalfa pasture the entire month of September. The condensery paid $1.70 per cwt. for milk last month.—M. H. Nelson.

Iola, Wis.: Two barns were whitewashed. Two members consigned cows to the National Grade Sale. The creamery paid 45c per lb. for fat. Milk retailed for 10c a quart last month.—L. L. Sether.

Milton—Edgerton, Wis.: Two cows from this association were sold at the Grade Cow Sale at the National. One cow, a grade 3-year-old heifer with a record of 404 lbs. fat as a 2-year-old, sold for $160. The other cow, a 7-year-old grade Holstein, sold for $135. Her record was 381 lbs. fat. The condensery paid $1.90 per cwt. for milk in September.—W. H. Roberts.

Marshfield No. 2, Wis.: Twenty-seven herds were tuberculin tested and 7 reactors found. Three barns were whitewashed and one remodeled and sanitary steel equipment installed. Three new cement silos were erected. The Wood County area tuberculin test is nearly completed and animals are found to be comparatively free from this disease. The cheese factory paid from 44—48c per lb. for fat, the creamery 38—44c last month.—L. G. Lampman.

Footville—Evansville, Wis.: One new member joined the association. Several members are liming their soils for alfalfa. Silos are being filled. A large per cent of the corn is soft through this section. Last month market milk sold for $2.60 per cwt. The condensery paid $1.60 per cwt. for milk. The cheese factory and creamery paid 40c per lb. for fat.—A. C. Lasse.

Alma—Cochrane, Wis.: One member installed an electric light plant. The association booth at a local fair exploded the idea that it pays to buy or sell cows on the merits of guesswork. One member attended the Dairy Show.—E. R. Bailey.

Hazel Green, Wis.: Of the 330 cows tested last month, 23 produced over 40 lbs. of fat. One member erected a new silo and another is remodeling his dairy barn. Several herds were tested for T. B. with but one reactor found. A cheese factory began operation the last of September after being idle for some time.—H. L. Johnson.

Elroy, Wis.: One cow produced over 60 lbs. of fat, 4 over 50 lbs., and 9 over 40 lbs. Two herds averaged over 30 lbs. of fat. The high cow for the first three months is owned by E. Kimball and produced 179.1 lbs. fat. One member painted his farm buildings. The creamery paid 41c a lb. for fat in September.—A. G. Steffen.

Muskegon—Ravenna, Mich.: One barn was remodeled and drinking cups were installed. Several barns have been whitewashed. Last month market milk sold for $2.40 per cwt. The condensery paid $1.60 per cwt. for milk. The creamery paid 43c per lb. for fat. Milk retailed for 10c per quart, butter 39c per lb.—G. Rockel.

Remus, Mich.: Eight cows produced over 50 lbs. of fat last month. One member purchased the champion bull calf at Detroit State Fair. Several milk houses have been built and some of the members are considering installing milking machines.—N. S. Smith.

Branch Co., Mich.: The association average of 272 cows tested was 522 lbs. milk, 21.27 lbs. fat. Returns for $1.00 expended for feed was $2.48; cost to produce one pound fat, 20c; cost to produce 100 lbs. milk 84c. In September market milk sold for $2.50 per cwt. The condensery paid $1.40 net flat; the creamery, $2.50. Milk retailed for 12c per quart, butter 43c per lb.—L. Q. Kitchen.

East Oceana, Mich.: One member is building an addition to his barn, making room for ten to twelve more cows. The creamery paid 36c per lb. for fat in September.—R. Greenman.

Northrop, Minn.: The high herd, owned by R. E. McLaughlin, consisted of 14 pure-bred Holsteins and averaged 42.2 lbs. fat for the month. The creamery paid 42c per lb. for fat and fluid milk sold for $2.25 per cwt. in August. One faulty separator was replaced with a new one.—R. E. Jensen.

Dupage Co., Ill.: A. C. Konde is the new herdsman at Cantigny Farm. Tritonia Pietertje Ormsby Lad, purchased by H. C. Vial and A. W. Abbott, was first prize 2-year-old bull at the National Dairy Show and second at the Dairy Cattle Congress at Waterloo this year. Old Friend, an 18-year-old pure-bred Holstein cow owned by A. W. Fischer, dropped a fine heifer calf, the ninth calf since Mr. Fischer bought her when 8 years old. Of these offspring, six were female and three male. She has also been a wonderful milk producer, having a cow testing association record for five years and an official record of better than 14,300 lbs. milk and 492 lbs. fat. Mr. and Mrs. H. C. Vial and Mr. and Mrs. A. W. Abbott entertained the members of this association October 2nd. At the business meeting the secretary was instructed to ask the University of Illinois to issue a certificate of production of all cows producing more than 400 lbs. fat in one year. The average production of the 480 cows in milk last month was 557 lbs. milk, 20.6 lbs. fat; value of product, $14.91; feed cost, $6.85; profit, $8.07 per cow. The return per dollar expended for feed was $2.18 and the feed cost of 100 lbs. milk $1.23; of butterfat, 33c. Market milk sold for $2.60 per cwt. and retailed for 14c per quart in September.—F. D. Kasserman.

Lake Co. No. 1, Ill.: Last month two new silos were erected, one brick and one concrete stave. At the J. M. Patterson Farm the dairy barn is being remodeled and equipped with a King ventilating system. A large manure pit has been built at a distance from the barn and the yard paved with concrete, making this one of the most sanitary plants in this association. The Hawthorn Farm had a severe setback by the burning of their barn from spontaneous combustion of hay. Another barn is being remodeled on the place. Market milk sold for $2.60 per cwt. and retailed for 13—14c per quart. The creamery at Zion paid $2.85 per cwt. for milk in September.—E. A. Forman.

North Allegan, Mich.: Production has fallen off considerably due to the large number of dry cows. The honor of the high herd for both milk and fat production again goes to Bert Ter Haar's 18 Holsteins, with an average of 1,103.7 lbs. milk, 36.4 lbs. fat. Silo filling is in full swing. There is not much ripe corn, due to September frosts and the cool summer, except on the sandy soil and higher land. Last month market milk sold for $1.75—2.50 per cwt.—C. L. Fleming.

Tomahawk, Wis.: Three carloads of feed have been purchased co-operatively by members. Farmers and dairymen of Lincoln County are beginning to realize the value of cow testing associations and in the near future another association will be organized. Market milk sold for $2.00 per cwt. and retailed for 10c per quart in September.—W. S. Schneider.

Allenton—Kohlsville, Wis.: This association's National Dairy Show consignment numbered 13 aged Holsteins and 5 bred heifers, plus 10-year-old Cedar Lawn Canary Paul 6th on exhibition with 10 of the above aged cows who were "better than their dams". See write up and illustrations in last week's issue. The condensery paid $1.88—2.00 per cwt. for milk in September. The cheese factory paid 42.2c per lb. for fat.—V. M. Anderson.

Spring Green, Wis.: Cows dropped in production during September, especially where grain was not fed with pasture. Two herds qualified for the National 300-lb. Honor Roll. The cheese factory paid 42—46c per lb. for fat. Sweet cream brought 40—42½c per lb. fat last month.—A. F. Clump.

Ogle County, Ill.: Joe Hemingway's 7 pure-bred Holsteins averaged 7,651 lbs. milk and 260 lbs. fat since April 1st. Market milk sold for $2.60 per cwt. The condensery paid $1.60 direct ratio. The creamery at Polo paid 38c per lb. for fat. Milk retailed for 9—13c per quart in September.—J. Potter.

Berrien—Cass, Mich.: This association was organized September 19th. All members raise alfalfa hay and all have silos. A large number belong to the Producers' Creamery Association at Benton Harbor. This creamery is owned and operated by the farmers who supply the milk. It is an organization of high standing and is a success. Last month market milk sold for $2.50 per cwt. Milk retailed at 12—14c per quart.—H. D. Boas.

McHenry Co., Ill.: All Holsteins shown at the recent McHenry County Fair were owned by members of this association. About 50 head entered; bulls were especially strong. Two members are adding to their own and the cows' comfort by installing drinking cups. One member has added to his herd by a purchase of 23 tuberculin tested grades. Pasture is holding up very well, with most members using some kind of clover. Market milk sold for $2.60 per cwt. and retailed for 12c a quart last month.—B. McClellan.

Pine Co., No. 1, Minn.: Two new silos were erected. One new separator was purchased. The average of this association was considerably lower in September on account of the short pasture and the majorty of the cows coming fresh next month.—A. Driver.

West Allegan, Mich.: One member whitewashed his cow stable. The average of the 199 cows tested last month was 363 lbs. milk, 18.77 lbs. fat. The creamery paid 38c per lb. for fat. Milk retailed at 10—12c per quart in September.—L. A. Wilcox.

Bruce, Wis.: Three new silos were erected. Ten members fed grain to cows on pasture. The creamery paid 40c per lb. for fat last month.—C. W. Rye.

A Record Silage Yield

HOARD'S DAIRYMAN:—The corn crop of the Yakima Valley, Washington, is very good. Thirty-one tons and 740 pounds of corn silage was the tonnage produced from one acre by S. D. Cornell, as shown at the close of harvesting the corn September 28th. Last year Mr. Cornell produced 27½ tons an acre on his place near Grandview. This year he is on a new place on the Yakima River in Yakima County. Mr. A. E. Lovett, county agent, who was present and made the official record of Mr. Cornell's yield, states that this yield sets a new world's mark for an acre production.

Eight separators were found to be testing at enormous loss for the past month. Most cows are coming fresh now. The Yakima Dairymen's Association paid 41 cents per pound for fat during the month of August. The prolonged dry fall has made pasture very poor and sweet clover is gaining in favor for late pasture.

Sunnyside, Wash. J. M.

Pink cheeks from drinking milk will not rub off.

Hoard's Dairyman

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Founded 1885 by W. D. HOARD

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General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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Coming Events

Nov. 1-8—Pacific International Live Stock Exposition. Portland, Ore.

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Dec. 10-16—Pacific Slope Dairy Show, Oakland, Calif.

Sale Announcements

Nov. 12—Holsteins. Dispersal Oriolevale Herd, Neillsville, Wis. Wayne F. Potter, Prop.

Nov. 20—Barron County Holstein Breeders' Sale, Barron, Wis. Ernest Le June, Mgr., Rice Lake, Wis.

"Take care of that farm machinery now," says E. R. Raney, farm engineer for the Extension Division of the North Carolina State College, "for although thieves may not break through and steal, the rust will sure get them, which is just as bad."

Real Butter an Election Issue

HOARD'S DAIRYMAN:—On billboards in Oregon towns appears this slogan; "Guard Your Homes and Your Pocket-books.

"Don't Pave the Way for One Dollar Butter.

"Vote No. X 307".

No matter whether the town be large or small the sign will be there somewhere, urging people to vote to repeal a law designed to protect the dairy interests.

Briefly stated, this law would have prohibited the manufacture or sale of any condensed or evaporated milk containing vegetable fat; also the sale of any substance containing milk or milk products combined with vegetable fats.

It is the old story of the snake killed during the day wiggling its tail until sundown; only the margarine clique did not intend the sun to go down until their creature thus rendered insensible but not killed should be completely given back to liveliness. The law passed in 1923 was made inoperative by the margarine interests invoking the referendum and so the dairy people are back where the fight must be made again.

In the state of Oregon, proposed amendments are printed in pamphlet form, with arguments for and against, and distributed to every voter. In the arguments given by the Margarine Committee, in this official pamphlet, these claims are made:

"The cost of living will be increased if the law is allowed to become operative. The housewife who now pays 25 to 28 cents for nut margarine will be compelled to put twice that amount or more for butter."

The Margarine Committee put in a good word for the big, or little, brother of nut margarine, oleomargarine, by giving a quotation attributed to Dr. Wiley: "Oleomargarine, as made today, is pure, palatable, and more nutritious than butter." And Dr. Wiley writes he has been misquoted.

In their argument that their product is being discriminated against, the Margarine Committee says: "You can buy a product made of milk and *animal* fats, but you can not buy a product made of milk and *vegetable* fats." Granted that this *is* discrimination, the vegetable oil people may rest assured that if the cocoanut oil mixtures are ruled out, the fatty mixtures can expect their turn next; and eventually there would be no discrimination.

"This measure is not fair. It is class legislation." "It invades your personal liberty and creates a monopoly," is another argument printed in black-faced type. And it is interesting to recall that 'personal liberty' was mentioned by the disgruntled about a certain National Amendment. So if the rank and file of the American people can stand a bit of curtailment regarding the matter of 'drinkables', it is quite probable that they could survive regulation regarding eatables.

The Margarine Committee's arguments close thus, "It is the latest effort through legislation to create a food trust and a monopoly." I fancy producers of food will smile at the "food trust" idea, and Echo asks, "Since when?"

Of course the psychology of voters casting a vote against any measure that they do not thoroughly understand, will help the imitation—butter crowd. Then, too, a good many voters fail to vote on amendments at all.

Quite naturally the Oregon State Grange and the Oregon State Farmers' Union favor the bill; but it is interesting to note what Otto Hartwig, president of Oregon State Federation of Labor, says in argument for the bill: "To say that substitutes for such an important article as butter are an advantage to workingmen and women, who need the very best foods to sustain strength and health and to carry on their work under the many artificial conditions of today, is a false premise. Organized labor is fighting for a butter standard of living and not for an oleo standard, and the substitution of an artificial lubricant on bread and other food compositions is false economy and a poor and unhealthful practice."

According to figures given out by the Portland Chamber of Commerce, over 500 families have come to Oregon this fall, most of them from east of the Rockies. Many of them have depended upon cows more or less for their living expenses; if this bill is killed there will be some disappointed newcomers as butter is so low now that those of us who have been here for a number of years feel that if fat does not go higher, or if it drops still lower, it will pay to keep only a cow or two, just enough to furnish butter and milk for our own use.

OREGON SUBSCRIBER.

Rastus—Here's dat quatah ah borrowed from yuh last year.

Sambo—Yuh done kept it so long dat ah don't know if it's wuff while for me to change mah 'pinion of yuh jes' fo' two bits.—Life.

Aunt Ada's axioms: for progress, we need to become as little children, —always asking questions, always in search of truth.



Butter and beauty got together recently when Miss Faye Lamphier, beauty contest winner of California, and Blossy's Sequel, Guernsey butterfat producer of the state, posed for the photographer at the James A. Brown certified Guernsey dairy ranch, California. Miss Lamphier, after winning first in the Santa Cruze beauty pageant, won third in the National beauty contest at Atlantic City, September 2—6, as "Miss California". Blossy's Sequel produced 822 pounds fat and represents California's Guernsey champion when considering only California produced Guernseys.

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Every rod of "Galvannealed" Square Deal fence is made of copper-bearing steel. The patented "Galvannealed" process welds 2 to 3 times more zinc coating into the wire. Copper mixed in with the steel together with the extra heavy zinc coating **stops rust**; therefore Square Deal lasts 2 to 3 times longer. Costs not one cent more than the ordinary kind. We'll send upon request, copy of official tests that absolutely prove these claims.

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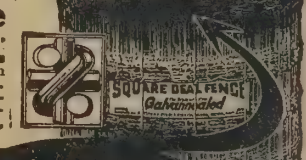
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Louisville, Kentucky

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, D. C., OCTOBER 20—L. H. Goddard, of the U. S. Department of Agriculture, who has recently returned from an inspection trip through the Middle West and Northwest, reports a decided trend toward a most unusual increase in acreage of wheat and corn the coming season.

Mr. Goddard points out the probable result of the present trend in the wheat and corn belts. "They are literally 'tearing up the earth'," he says, "to get winter wheat into the ground and to get land ready for corn." Some estimates already point to a ten per cent increase in wheat acreage. Mr. Goddard's report forecasts an even larger increase.

⚜

Although it is recognized that the situation which in April or earlier started the agitation for an increased tariff on butter, has entirely changed, so that there are no imports coming now, still the wheels of governmental action set in motion at that time to secure a Tariff Commission investigation, are still grinding along, slowly and certainly. The investigators sent to Denmark, including Professor Warren of Cornell, are back home, and the data secured are being worked up by the Commission's staff, being prepared for the "Statement of Information" which is issued preliminary to the public hearing which the law requires to be given before the Commission takes action in any case. The investigators sent out into the butter producing sections of the United States to secure cost data have also reported, and this information is also being worked up for inclusion in the same public document. This, when issued, will bring the question of "foreign" and "domestic" costs into parallel columns, so the inference is that the total cost per pound found for Denmark and the total cost per pound found for the United States will be the figures whose difference will establish the rate of tariff which the law says should be established by the government. This is the grist which the wheels of agitation, started last April, will grind out of this Tariff Commission mill. There is now some expectancy that this report will be ready within a month and that within a month after its issue the hearing will be held. If the difference as found by the Tariff Commission is more than eight cents a pound higher here than in Denmark, then the tariff increase will be recommended, but if the difference is less than eight cents a tariff decrease may be reported. The only other alternative is to find some flaw either in the Commission's figures or their methods of making the investigation.

⚜

Professor Graves, head of the research section of the Bureau of Dairying, dealing with the problems of breeding to establish high producing lines, is on an inspection trip in the West. He will check up progress on the experiments now going on in his work on the various dairy stations and with some of the co-operating colleges and state experiment stations.

⚜

H. J. Rabild, who has been in charge of the Dairy Bureau plant at Grove City, Penn., has resigned and gone to Denmark for a visit and study trip. He will be gone some months.

⚜

Anticipating the beginning of Congress sessions early in December, the Appropriations Committee will begin work here about the middle of November on various appropriation bills. For example, the Agricultural Sub-committee, Hon. Walter Magee, chairman, will start hearings on November 17 on the agricultural budget, in preparation of the bill which will be ready for introduction, it is hoped, by the second week in December. Prior to the hearings, the Budget Bureau will have completed all work and have the entire proposed appropriation for the work of the Department and all its bureaus completed and approved. In fact this budget for the Department of Agriculture is nearly completed as this is written. Requests for special appropriations must be prepared for submission to the Magee Committee at an early date, if any consideration is secured before the bill is reported to the House.

⚜

Two legislative proposals have been agreed upon by the National Milk Producers' Federation, action to be taken on both of them if the situation in Congress warrants. One of these is to oppose any legislation which may be offered, or has been offered, which has as its object the bringing of co-operative marketing organizations and activities further under government control or license. The other is to propose the repeal of the flexible tariff proviso under which the effort to reduce the duties on vegetable oils and on casein have been made. "We have been the victims of experiment," says Charles W. Holman, secretary of this organization, "and we have been hurt and not helped. The only people who are still in favor of this proviso are those to whom it is a beautiful theory and who have had no practical experience with it."

⚜

Quarantine regulations, fully as strict and as restrictive as were placed by the various states against the shipment of anything from California which might spread its epidemic of foot and mouth disease, have been placed very generally against Texas products, since the outbreak there, according to information at the Bureau of Animal Industry. The news from Texas at this time is very encouraging, however, indicating very close confinement of the outbreak to the areas where it was first discovered and fine co-operation from all concerned.

Community Fair a Success

On October 9th the annual community fair of Princeton, Wisconsin, was held in the high school building. This is an annual event and is much looked forward to by the children of the community and their parents.

Beginning the day before the fair and continuing through the morning and up until noon the day of the fair exhibits were being poured in from every side of the town and country around Princeton. These exhibits included poultry, calves, field crops, and vegetables that were entered by the boys and girls of the school.

Besides a large number of the townspeople, there was a particularly strong showing made by the country people. The rural schools of the community closed for the afternoon and the children and parents came in to the fair with the teachers.

The seventh and eighth grade agricultural class of the Princeton schools put on a parade which was a rather novel feature and stirred up considerable interest in the fair in town. Dressed up in farmer costumes and carrying agricultural posters which they had made they went down and back through the main street.

At about three o'clock the crowd gathered in the assembly and filled it to capacity. Professor F. E. Kelly of the high school opened the program with a few timely remarks and introduced R. L. Liebenberg, the agricultural teacher who took charge of the program. The Girls' Glee Club sang a group of songs. Following this Miss Gordon with her Senior typewriting class gave a demonstration of rhythm and speed work which proved very interesting. Professor Moore gave a talk emphasizing the value of agricultural education. Three high school boys gave an interesting and practical demonstration on poultry housing, culling, and feeding. County Agent Lacey then spoke on the value of club work and strongly urged more boys and girls to get into the club work next year. The list of prize winners was then read by Mr. Liebenberg.

Another feature in which the women and girls took great interest was the demonstration which was put on in the sewing room under the direction of the Domestic Science teacher. Three high school girls gave an excellent demonstration on the care of a child.

Exhibits were prepared and put up in each of the grade rooms and they proved an interest to many of the people present and particularly to the teachers. All in all the fair was a success not only in the immediate result but that it exemplifies what can be done along the line of school work and in school which is going to have a far reaching and beneficial effect not only upon the children but upon the community as a whole.—R. L. LIEBENBERG.

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State Champion Jersey Wins Medal of Merit

Sophie's Emerald, the Jersey butterfat champion of New Jersey, has again distinguished herself by completing an exceptional official test, this time in the 305-day division.

Emerald started this test when eight years of age, and in 305 days she produced 772.18 lbs. fat and 14,204 lbs. milk. She dropped a living calf within fourteen months of previous freshening and thus completed all the requirements for a Medal of Merit.

The winning of a Medal of Merit in the 305-day division is a much greater achievement than it might at first appear. Only three other cows have qualified for the award in this division.

Emerald established her reputation as an outstanding producer when she made a record of 940.46 lbs. fat and 16,900 lbs. milk at six years and four months of age, and became Jersey butterfat champion for the state of New Jersey. She was also tested as a senior three-year-old when she produced 552.52 lbs. fat.

Sophie's Emerald is owned by P. H. B. Frelinghuysen.—The American Jersey Cattle Club.

Milk Record Sheets

For years Hoard's Dairyman has been preaching the necessity of keeping records of the production of each cow. Only by knowing how much milk each cow actually gives is the dairy farmer able to improve his herd. Our Book Department has various sizes of milk record sheets to make it easy to keep tab on your cows. Complete samples with price list will be sent for 5 cents in stamps. Address Hoard's Dairyman, Fort Atkinson, Wis.

EDITORIAL COMMENT



THE CHRONIC KICKERS

Some creameries have great success and some have miserable failures. How often do boards of directors of co-operative creameries sit far into the night discussing problems and ways and means of solving these problems and finally adjourn the meeting with little accomplished? Each member of the board feels for himself that something can be done and that something ought to be done. They hesitate, and are lost because some member of the board ventures the opinion that, if they take favorable action on the proposition discussed, some half dozen of the several hundred patrons will not agree with the board's action.

A few good men on the board of directors of a creamery are worth thousands of dollars to a community if they have the ability to find out what is wrong, agree on the best remedy and see that the remedy becomes effective. Men of this kind often do not get the degree of appreciation from the community that they deserve.

A few chronic kickers among several hundred good patrons are often a very great menace to the success of the creamery. Boards of directors could well afford to pay less attention to this very small group.

CARELESSNESS AND FIRE

Fire losses through carelessness are tremendous. They have become so great that the week of October 5 to 11 was set aside as National Fire Prevention Week. In five years, from 1915 to 1919, the loss by fire in the United States, due to defective chimneys and arrangement of stove pipes, amounted to $56,650,915, according to statistics given out by the National Board of Fire Underwriters. We consider this a very heavy price to pay for carelessness.

The farmer, in particular, should be sure to examine his chimneys at least once a year, and if the stove pipe passes through the ceiling it should be properly insulated. A tile may be used or metal thimble which may be obtained from any hardware store. In dry weather, care should be exercised in starting fires. We know of several roofs of houses that caught fire by lighting loose paper in the stove or furnace. The draft carried it up the chimney, it fell on the roof and set it afire.

We consider it a good practice to keep fire extinguishers in the barn, in the house, and in the garage, as they contain substances that are very effective in putting out small fires. They are not expensive and any one can operate them. If fire extinguishers are placed about the different farm buildings they should be inspected at least once a year to determine whether they are properly filled with chemical and otherwise in working order.

BRING BACK CLOVER

Many sections of the country that once grew red clover successfully find it difficult to get a stand or to have it live through the winter. We know of certain sections of states where red clover grew so persistently that it became as troublesome as some weeds. Institute speakers in such sections have taken up the problem of how to destroy red clover. After these soils have been cropped for a series of years, there seems to be no danger of red clover being in any way troublesome to crops that follow, and the farmers find difficulty in getting red clover to grow. What have the plants taken from the soils that once grew red clover successfully that now makes more failures than successes?

We doubt whether our soil specialists or scientists have really gotten to the bottom or accounted for all the reasons why soils will not produce clover now as well as when they were new. We feel rather certain that the application of lime to sweeten the soil, the use of some phosphate to make up for the deficiency of this element in soils, and the application of manure will in a great many cases prepare the soils so red clover can again be grown. Perhaps there are other things not yet discovered or thought of that are important to growing clover.

It is advised in a recent bulletin by the Wisconsin Experiment Station, entitled "Bring Back Clover", that "many failures of clover are due to the use of late ripening and rank growing grain crops. Early ripening grains do not exhaust the moisture of the soil so completely nor do they seriously crowd the clover seedlings. Cutting the grain and hay is an extra insurance for success on many farms where clover is now a failure."

CO-OPERATIVES AND GOVERNMENTAL CONTROL

The directors of the National Co-operative Milk Producers' Federation at their meeting in Milwaukee, Wis., Sept. 29th, declared their opposition to further governmental control over co-operatives through boards or commissions. A number of co-operative bills introduced in Congress last winter well indicate the way the wind is blowing.

We had occasion to review a number of these bills; some of them provided for the federal government to take complete charge of co-operative efforts throughout the United States. We believe there is opportunity for the government to assist in forming co-operative enterprises, to act in an advisory capacity, to supply useful information concerning markets, both at home and abroad, and to aid in the standardization and the grading of farm commodities. But it is going too far when they establish machinery which will have control of organizing co-operative institutions in the various states and in directing them. Successful co-operation depends upon educating the people in every local community regarding the principles and practices of co-operation.

It has taken about thirty years for the farmers of Minnesota to learn how to co-operate in building and operating successful co-operative creameries. The next step, and the one they have taken, is the federation of these creameries that they may market their butter under a brand and collectively. It is far better for the co-operative movement in Minnesota that the farmers had their past experiences in operating their local institutions. They are now more capable of forming a federation.

So much can be done for people that it will become harmful to them. Men and women grow strong by doing things, by meeting problems and solving them. Actual contact brings understanding and that is what is needed for success. The board of directors of the National Milk Producers' Federation fully appreciates that it would be a mistake to have the federal government placed in control of all co-operative enterprises and we approve of their protest which they have made against any such step.

IMPROVEMENT IN AGRICULTURE

The advance in prices of agricultural products has brought encouragement to the farmer and those directly dependent upon him. There is a different tone in letters, communications, and articles by all interested in the welfare of agriculture. The United States Department of Agriculture in its October report of the agricultural situation says: "It is by all odds the finest harvest in five years—not the greatest in physical volume of products, but the best balanced and representing the best income. There is no single case of serious scarcity among the major products; neither is there any serious overproduction."

Dr. David Friday, formerly president of the Michigan Agricultural College, has stated: "American agriculture has just turned a corner. It is the final turn to the right that leads out of the slough of depression on to the high road of prosperity. It may be that we are facing a decline in the general price level of all commodities during the next decade or two. If prices should decline, what has been said here will lead to the conclusion that farm prices will decline less than other prices."

Banks make a close study of both agricultural and industrial situations. It is their business to know the financial conditions of all classes of industry. "Agriculture," according to the National Bank of Commerce, New York, "is in the best financial position since 1920, and the prospect is for good crops and fair prices."

Still, we have a few leading agricultural products, the prices of which are lagging behind. Beef cattle in particular are not selling at prices in keeping with other commodities. The advancement in prices, however, in almost all classes of farm commodities for the past few months has been sufficiently rapid to bring encouragement and new inspiration to the farmer.

EFFICIENCY OF AMERICAN FARMER

The four important countries of the world listed in order according to quantity of agricultural production are: United States, Russia, China, and India.

The United States has a population of 100,000,000 people and a total land area of 3,000,000 square miles. The combined population of Russia, China, and India is 844,000,000 people and the combined land area is 14,726,000 square miles.

The interesting thing about all of this data to every United States citizen is found in the fact that the United States with 100,000,000 people produces nearly 70 per cent of the entire world's corn, 60 per cent of the world's cotton, 50 per cent of the world's tobacco, about 25 per cent of the world's oats and hay, 20 per cent of the world's wheat and flaxseed, 13 per cent of the world's barley, 7 per cent of the world's potatoes, and 5 per cent of the world's sugar.

The most interesting thing about it is the fact that only about six and a half million families in the United States are engaged directly in agricultural production. Only about a quarter of our gainfully employed population is engaged directly in agriculture, whereas, about 85 per cent of the people of Russia and about 75 per cent of the people of China and India are classed as agricultural.

What does it all mean? First of all it means that the farmers of this country are the most efficient producers of agricultural products in the world; second, and because of this fact, it means the release of large numbers of our population to other occupations the results of whose labor, when consumed by our entire people, make the most enjoyable standard of living in the world. It means that the pioneer farmers, journalists, teachers, and scientists in the agricultural field have laid a foundation, the present reward of which is the almost unmeasurable opportunities of our people to enjoy life.

Do the American people really comprehend and appreciate the tremendous importance of the efficiency of the American farmer?

Among our chief problems today are increasing the efficiency of the distribution of our products and making a fair and equitable distribution of the results of labor.

We believe that these problems can be more satisfactorily solved by working from the inside out rather than placing too much emphasis on working from outside in. Self help, mutual understanding, confidence, faith, ambition, and enthusiasm are worth more towards real accomplishments when applied from the inside out than all of the "outside in" helps that we are too frequently considering.

Why Tin and Gum Rubber

Why are milk cans, buckets, and all milk utensils made of tin? Would galvanized iron affect the milk in any way? Why are all rubber milk tubes made of pure gum? Would not ordinary rubber lined spray hose do as well for milking tubes on milking machine?

Lamoille, Nev. L. J.

Strictly speaking, tin is an inert metal that does not yield to the action of acids and brine. However, it is too expensive for use alone in the making of most utensils, particularly as it may be put on as a protective coating over cheaper metals (such as sheet steel, iron, copper, etc.) and produce as good if not a better utility product as pure tin. The heavier the coating of tin these baser metals receive, the better is the resulting product that is commonly known as tin.

Milk utensils are made of tin for the reason that it does not readily corrode and look distasteful. Being smooth and shiny, it is relatively easy to wash and sterilize. It is very much less soluble in milk that becomes sour than is zinc, copper, iron, and similar base metals that have thus far found a large place in dairy utensils. It has been abundantly shown that metallic flavors of milk and dairy products are related to the solution of some of the metals in milk utensils that are not properly coated with tin or nickel. Galvanized iron would be particularly objectionable because it has a rough coating that makes it difficult to wash thoroughly and the action upon it of the acids of milk would be detrimental to the quality of the milk.

The common rubbers are highly impregnated with mineral salts which dissolve in and impart a bad flavor to milk and its products. Pure gum rubber is much more pliable and will not develop cracks nearly as quickly as would rubber lined spray hose. It is rather difficult to keep the rubber parts of the milking machine in good condition. This is due largely to the development of minute cracks into which the milk penetrates and from which it is impossible to remove it. Bacterial growth occurs and under the constant change of pressure the milk with its content of bacteria is forced out of the cracks and the milk becomes well seeded with bacteria that will cause undesirable fermentations.

The rubber lined spray hose will not stand a great deal of sterilization with either heat or chemicals. The pure gum hose is more sanitary, flexible, and will last longer. It is probable that its greater cost does not warrant its use for the vacuum hose. The U. S. Bureau of Dairying recommends that teat cup rubbers should be made from "pure gum" compound to avoid rapid deterioration.

Finds Iodine Valuable

HOARD'S DAIRYMAN:—In the July 4th issue of Hoard's Dairyman reference is made to iodine for animals. I have used one teaspoonful tincture of iodine in 2 quarts water as a vaginal douche, with very good results in treating catarrhal infections of the cow and of the sow. Have also used it with good results, in combination with potassium iodide, following abortion, retained afterbirth, and for sterility due to infection.

Iodine stimulates the thyroid gland, and the thyroid has a friendly influence on the ovaries, hence anything that strengthens and improves the functions of an organ should also increase the powers of resistance of that organ to infections. I have used potassium iodide in water with very good results in slop for sows and in drinking water for cows, as a means of overcoming infections. Potassium iodide is a splendid internal antiseptic and has a tendency to "purify the blood". Iodine, or iodide of potash, when used by mouth should be well diluted with water.

Calcium iodide is very useful in affections of the lungs and bronchial tubes, and there may be some good in the idea advanced by B. W. H. that iodine may help to ward off tuberculosis. Iodine is found in sea water, also in some kinds of rock salt, hence it would be well to keep rock salt before live stock at all times. Perhaps the nearest experiment station can say where rock salt containing iodine may be obtained.

Lugol's solution of iodine is very useful as a vaginal and uterine douche, but I prefer sodium hypochlorite solution as being cheaper, more effective, and less danger of caustic irritation. I have used tincture of iodine very considerably in treating sore mouth, bull nose, and necrotic infections of the face in little pigs, but after considerable experience with potassium permanganate, very strong solution, have adopted the potassium permanganate treatment almost exclusively for these necrotic lesions and for necrotic enteritis (scours). As a regular practice, the tusks of the little pigs are carefully clipped immediately after birth, and then piggie is dipped in a solution of potassium permanganate, 15 grains to a half pint of water, head first and up to his eyes. Since working out this treatment, I have had excellent "luck" in saving little pigs.

The navel cord should be tied with twine disinfected with iodine, then the navel cord clipped and thoroughly painted with tincture of iodine, full standard strength. This should head off a lot of joint-ill, pneumonia, and scours in calves, colts, and pigs.

Florida. F. W. BURG.

Fire Dry Seed Corn

A high yield of corn depends upon good seed and good soil fertility. Good seed corn depends upon field selection, fire drying, and testing. The high yielding pure line strains of dent corn now grown throughout Wisconsin are larger eared, deeper kerneled, and larger, leafier plants and thus later maturing than the shallow kerneled low yielding varieties formerly used. Fire drying and storing in a cool, dry place insures a vigorous seedling free from disease which is resistant to disease and, therefore, can be sown earlier in the spring and thus increase the growing season. To illustrate: two lots of seed corn were selected from the same field. One was cured rapidly at 100 degrees F. while the other lot was stored in the barn without fire drying. Both were planted in a field near Verona on May 10, this past season. The fire dried corn gave a stand of 96 per cent of strong plants in contrast with a stand of 62 per cent in the portion of the field planted with the barn cured seed.

Select Seed Corn from the Field

Select the seed corn in the field before a hard frost. Take only ripe ears of good type well enclosed in dry husks, growing on stalks that are still green. Avoid dead, dry stalks for these are prematurely ripe due to disease and the disease germs are carried in the seed. In case the corn is shocked, select the best ears at the time of husking. Select double the number of ears needed for seed to enable you to discard poor ears.

Fire Dry the Seed Ears

The corn should be cured immediately. This fall, the average field selected corn has 32—40 per cent moisture. Experiments at the College have shown this moisture should be reduced to about 12 per cent by drying where the air is heated to 65—70 degrees F., or preferably 100 degrees F., and circulated rapidly between the ears of corn. After drying, the ears should be selected, shelled, and stored in a cool, dry place for the winter. Corn dried to about 12 per cent moisture and stored in a dry place is resistant to attack by molds and is not injured by ordinary cold weather. The germ thus remains strong and free from disease and results in strong seedlings capable of withstanding cold, wet weather and the attack of root rot germs during the early spring growing period.

Test the Special Seed Ears for Germination

The ears should be further selected during the winter and all with chaffy kernels or dull lustre should be thrown out. The remaining ears should be tested by germinating six kernels from each ear as described in Circular 58. Save for seed the ears which show a large, vigorous sprout on the germinator.

The man who purchases seed corn for next spring should investigate the source of the seed and be certain that it has come from a responsible grower or seed house specializing in seed corn production and fire drying of seed. The responsible, progressive seedmen specializing in seed corn production have all installed special drying apparatus for fire drying seed corn.

The combination of field selected, fire dried, and tested seed, sown early on well prepared clover land, has given an average increase in yield of 22 bushels per acre over the ordinary methods of growing corn.—R. A. MOORE and J. G. DICKSON, Wisconsin College of Agriculture.

Silage Variations

HOARD'S DAIRYMAN:—Last fall both my silo corn and field corn got frosted on September 5. This silo corn was just in blisters. I had soy beans planted in this silo corn and the beans had almost ripened enough for seed when frosted. Having a tractor and a cutter, I went to work and put this frosted mass into the silos.

Just what to do with this field corn I didn't know. Part of this corn was just in dent stage and some nearly ripe to cut. I let it stand two weeks longer in hope that it would ripen more, but this didn't seem to help matters any. It just stayed kind of soft and I was afraid to risk it to crib. Having two silos and by starting to feed right away, it gave me plenty of room to put this field corn in the silo, so I made up my mind to play safe and put this in the silo. This was kind of a slow job, having to haul it one and one-half miles, cutting just what we could haul and cut each day with three wagons. When I started to cut, my three boys would start to load the wagons, and I cut with one team and they would use the other team to load the wagons. When loaded we would use both teams and the tractor to haul them home. When ensiling we put on plenty of water, and it kept fine.

When we finished feeding the silo corn out of one silo, we started on the other with the field corn. My cows came up in milk flow in forty-eight hours from one to one and one-half pounds milk at each milking. That is what I can't understand, coming up in milk on silage made from frosted field corn that had stood more than two weeks after it was frosted.

When cutting this corn into the silo, the corn came through the cutter just like corn out of a corn sheller, all shelled off. Now this corn come through the cow whole, so I turned my hogs into the straw shed, and, believe me, the manure from the cows and skimmilk was all they needed. On April 14 I started on the other silage again, and in three days the cows dropped from one to one and one-half pounds milk each. Otherwise the same grain and other feeds. I just can't understand it.

Lisbon, Ohio. J. M.

We are unable to give any definite information concerning the apparent difference in feeding value of the two classes of silage. We believe, however, that it is merely a case of the immature silage not furnishing a sufficient amount of nutrients for cows to produce at their full capacity.

The following table gives the total pounds of dry matter in an acre of corn when cut at various stages of growth:

		Dry matter Lbs.	Percentage of usual silage stage
August 28	Silks drying	4,567	51%
September 10	Milk stage	6,174	70%
September 24	Glazing stage	8,104	90%
October 1	Silage stage	8,929	100%

This table would indicate that an acre of corn cut when the kernels are forming would be only half as valuable for silage as when cut at the usual silage stage. This, in part, is due to the lower yield per acre, as well as to the higher per cent of water in the immature corn.

Other experiments show that when corn is cut at an immature stage, such as when in the milk or before, there will be approximately 13.3 lbs. of digestible nutrients in 100 lbs. of such silage. If the corn is cut when well matured and at the usual silage stage, a hundred pounds of the resulting silage will contain approximately 17.7 lbs. of digestible nutrients. It would be necessary to feed 40 lbs. of the immature silage in order to equal in feeding value 30 lbs. of the mature silage.

We are unable to say as to whether the relative feeding value of the two grades of silage would be just in the above ratio, but it is probable that they would tend to approximate this. In other words, more pounds of the immature silage than of the mature silage must be fed in order to secure equal results. If the more mature corn had been allowed to stand in the field for a longer time, it is quite possible it might have so deteriorated as to not be superior to the silage made from the immature corn. Also, if care had not been exercised in ensiling the frosted corn, it is possible that the spoilage would have been sufficiently great to offset any increase in feeding value that might have been secured by reason of its greater maturity.

DAIRY EXHIBITS AT SOUTHEASTERN FAIR

F. R. EDWARDS, GEORGIA

"UP to standard" is a good way to describe the dairy cattle exhibits at this, the South's greatest agricultural show, and that is saying a lot, for whoever has attended the Southeastern in years past knows that the standard is not a low one and that a championship won at Atlanta is one worth taking home. When one considers the fact that not only does the best in the territory south of the Ohio and east of the Mississippi Rivers show here each year but also a lot of the best from north of the Mason and Dixon line is attracted by the premium list, it is no wonder that competition is keen.

The supremacy of the Jerseys and Guernseys over other dairy breeds in the South was pretty well shown by the fact that southern herds cleaned up the championships in these two breeds, while northern exhibitors ran away with things for the Ayrshires and Holsteins. This has been the usual happening in years past and the really surprising thing about this year's show was the increased strength of the southern breeders of the last two breeds of cattle over previous years. If this keeps up for a while longer, the exhibitors from the North of Holsteins and Ayrshires will have to watch their laurels when they come to the Southeastern. The southern breeders have shown an increasing tendency in recent years to get the best regardless of price when they go shopping.

The Southeastern Fair opened on Saturday, October 4th, this year and ran for eight days. It was succeeded this year on the southern show circuit by the Georgia State Fair and by the North Carolina State Fair, both of which came the following week. The fair officials stated that this year's attendance was unusually large and that the exhibits were very good. They further stated that they are expecting to have the premium list on dairy cattle heavier next year than heretofore in recognition of the increasing importance of the dairy industry in the South's agricultural system.

The collegiate student judging contest was won this year by the team from Mississippi A. & M. College which was coached by Prof. C. J. Goodell. Clemson's team won second place in the contest.

The dairy cattle exhibits were judged by Hugh C. Van Pelt. In the Ayrshire classes Lippett Farm of Rhode Island made a clean sweep of the championships winning junior, senior, and grand championships on bulls and junior and grand championships on cows. This herd showed well and did credit to the breed. The Ayrshire classes were not well filled, only two herds were on hand to compete. The senior and grand champion bull was Iroquois Scotchman 20217 and the senior and grand champion cow was Iroquois Sallie Winter 56301.

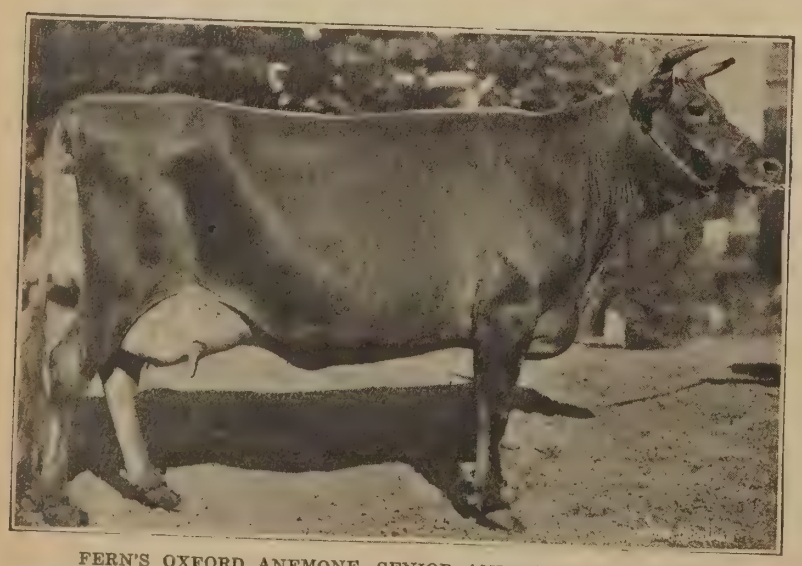
The Guernseys were well represented and competition was keen. Appletree Point's Morose Conquest 94066, owned by John S. Candler, Georgia, was junior champion and grand champion bull. The senior championship on bulls was taken by Glenwood Sunburst of Clover Farm 73357, a splendid animal owned by James L. McIntosh of South Carolina. In the Guernsey female classes Judge Candler won all championships. His imported heifer, Osceola France Beauty 146679, well merits her name and could stand in stiff competition at any show. She proved this by winning the junior and grand championships. A Candler cow, Mabel Sequel 121582, got the senior championship.



IMP. OSCEOLA FRANCE BEAUTY, JUNIOR AND GRAND CHAMPION GUERNSEY FEMALE AT SOUTHEASTERN FAIR
OWNED BY JUDGE J. S. CANDLER, GEORGIA

The writer doubts whether the Southeastern Fair has ever seen so many good southern-bred Holsteins as were shown this year. Echo Segis Mercedes Vashti 443738, owned by Clark & Smith of Kentucky was awarded the junior and grand championships in the Holstein-Friesian bull classes. The senior champion was a remarkably fine specimen of Holstein masculinity,—Illini Tatomia Pride 291428, owned by Mr. Elmer Frazier of Indiana. It is worth noting that the senior championship on bulls was the only Holstein championship going to an animal north of the Ohio River this year. In the Holstein female classes Clark & Smith had their own way with championships. Their heifer, Echo Segis Farmstead Pietertje, took both junior and grand championships and their cow, Blue Grass Colantha Alcartra 579861, was made senior champion.

The Jerseys are sometimes called the "standby" of the South in dairying and this seems to have been borne out by the showing this year. The competition in Jerseys was very keen and only the best animals in the breed stood any chance at championship honors. Three of the outstanding herds showing were those from Pebble Hill Plantation, Georgia; Camden Terrace Farms, Ohio; and Mr. Wm. McPherson's farm, Georgia. The junior champion bull was Bright Volunteer 232545 of Pebble Hill Plantation and the senior and grand champion Jersey bull was the well known Adelina's Sultan 220435 also from Pebble Hill. It should be said here that Wm. McPherson's fine young junior yearling, Xenia's Sparkling Sultan 219146, gave Bright Volunteer a very close race for the junior championship and was said to have lost chiefly because of Volunteer's splendid conditioning. Adelina's Sultan had some stiff competition, in spite of the fact that he had been doing so well wherever he had been shown in the northern states show circuit. It will be remembered that he was second only to Mr. Frelinghuysen's Fern's Wexford Noble at the National Dairy Show a few days before. Mr. and Mrs. Harvey and the Pebble Hill people have good reason for being proud of this splendid representative of the breed.



FERN'S OXFORD ANEMONE, SENIOR AND GRAND CHAMPION JERSEY FEMALE AT SOUTHEASTERN FAIR
OWNED BY MR. & MRS. P. W. HARVEY, GEORGIA

Among the Jersey females there was a good showing and well filled classes. Tiddlewink's Distinction 557-551 from Camden Terrace Farm took the junior championship and Fern's Oxford Anemone 617172, owned by Mr. and Mrs. Harvey of Pebble Hill Plantation, was made senior and grand champion.

A very pleasing incident of the show was the presentation of a sterling silver writing set to the new superintendent of cattle exhibits, W. T. Bennett of Georgia. This is the first year that Mr. Bennett has filled this position and he has given such satisfaction that the fair officials are going to try to retain his services each year. He smoothed over many rough places for the exhibitors and herdsmen and handled things with a smoothness and efficiency that would be hard to beat.

Bone Meal for Depraved Appetite

HOARD'S DAIRYMAN:—In your issue of August 15th, on page 117, appears a query about "Depraved Appetite", and I very much doubt if your answer is the best advice. Here in South Africa this craving is pretty common. Stock don't stop at rotten wood and boards, nor even rags. I saw a post-mortem on a cow once when they took 2' 4" of barbed wire out of her. I've seen nails, stones, and even bits of glass bottles inside slaughtered animals.

Our Government Veterinary Research Department has recently completed exhaustive experiments on this craving and have proved beyond all doubt that it is due to a deficiency of phosphorus. This can readily be overcome by giving stock free access at all times to bone meal, which has been carefully sterilized and which can be guaranteed free of anthrax spores.

Not only does bone meal cure and prevent the unnatural craving of cattle for sticks, decayed bones, and other offal, but digestive troubles soon disappear and unthrifty animals rapidly improve in condition when it is fed.

Stock has been shown (not only by the veterinary department, but also by many farmers in every district) to increase in weight quicker, to eat better, to give more milk, to be able to work harder, to produce better beef, and generally to be enormously benefited by the bone ration.

A South African Friesland, "Butterfly", who gave 125 lbs. milk as a daily average for over four years, was fed one pound of bone meal daily, and when in calf 1½ to 2 lbs. each day. To this fact may largely be attributed her continued enoromus output.

Natal, South Africa. H. E. A.

Oregon Jersey Produces 911.52 Lbs. Fat

When Empress Lass of Ingleside completed her test with a record of 911.52 pounds fat she came within three pounds of breaking the world's Jersey record in the senior three-year-old class, which is now held by Ibsen's Jubilee Signal.

However, even though Empress Lass has not broken the world's record she has put up a splendid performance that merits the highest praise. She has, of course, broken the Oregon record for this age class.

This is not the first time that Empress Lass has been heard from, for she was tested when two years and six months of age, and in that test produced 759.16 pounds fat in 365 days. On this record she won both a gold and a silver medal and became second highest Jersey in the senior two-year-old class. This means that she now holds a place next to the world's champions in both the senior two-year-old class and in the senior three-year-old class.

She is owned and was bred and tested by B. G. Altman of Oregon.—The American Jersey Cattle Club.

Says Sam: As with a book, so with a man: Study him before you comment on him.

New York Dairy Notes

H. H. LYON, NEW YORK

THE success of New York dairying for the next several years is believed by many to depend upon the New York Dairymen's League. This belief is shared not alone by League members but by many non-poolers as well. Very likely too much dependence has been placed on the organization and the same is still measurably true. All does not depend on organization but the success or failure of organization will most certainly make a deal of difference to our dairymen. The elimination of unprofitable cows and feeding what are left for high production at the lowest cost is still more important. Many are saying that a less production would add greatly to profits, and various ways are suggested for the accomplishment of this. That part of the subject will do for another time.

From city business and from various departments comes the advice that we are on the eve of major progress towards better financial conditions. Generally this optimism is not shared to any considerable extent by our New York dairymen. We are at about the lowest net return for a year's work that we have been at all. Not many feel encouraged at the prospect for next year. Occasionally one argues that we are to have a better year in 1925 than this has been and that is a good thing to encourage. Our milk prices are dependent on butter prices and we are told that there are factors that will help the butter market for the year to come. Then we depend on general business prosperity for sustained markets. Business prosperity for next year appears to be encouraging. The settlement in Europe will most likely be of help. While we pay too much for feeds yet it seems likely that we may be encouraged respecting the markets for the coming year.

⚜

I have just read that the pure-bred business here is picking up. This comes from a source that ought to know. I hope and believe that it is true. At present one hardly sees much proof but it is best to have faith and prepare for improved conditions by raising young stock in the very best manner. Make them good or don't grow them.

⚜

In spite of discouragements poultry, where it has been well handled, has proved profitable and the prospect for next year is fairly good. We thought it would go with the dairy business and to some extent it has but the men who have given it attention seem to have come out better than have those who turned all their attention to the dairy. One would hesitate to advise expanding in the poultry line but for the dairy farmer who has a start in poultry as a side line it seems advisable to keep going about as begun. It is like dairying though—it must be well conducted.

⚜

There is scarcely a man, whether member or not, but believes that his prices for milk are to some extent at least dependent upon the success and continuance of the Dairymen's League. Members admit that they have not profited as have some of those who elected to stay out of it but they generally believe that they have received something more in cash than they would have had without any organization and they have done a remarkable constructive work in building up a working organization under almost the worst of discouraging circumstances. Then they find wherever they have investigated that they have realized more money than have most of those who have remained outside of the organization. The number who have received more than members is estimated somewhere near ten thousand dairymen and the present number of participating members is stated at about 41,000. This number does not vary so greatly in different months although there are changes in individuals who participate from month to month.

One of the announcements that has caused much comment is a recent decision respecting the enforcement of the League contract respecting damages where a party to the contract has refused to continue with the organization and has gone to another buyer. This decision is against the enforcement of the contract. It is on a second or third appeal and may be further appealed. It does not settle the validity of the contract for the ground of decision is that these men who violated were not members in a legal sense. They had signed the contract but not the by-laws, and it was two days before all contract signers had been voted in as members of the association. It would seem that nothing is really settled by this decision. Decisions in similar cases have been made elsewhere and the contract upheld, but it is understood that they were cases of actual membership.

The so-called pool price for milk for September is announced as $1.92. This is twenty cents above August although the various prices were almost the same, showing it would seem greater efficiency on the part of the association. This is for three per cent milk at 210 miles from New York. There are deductions of eight and a half cents for costs including advertising, depreciation, etc., and ten cents for interest bearing certificates as capital costs. This ten cents is returnable in five years as is already understood. The cash and certificate return then is $1.835 if there is no mistake in the report.

The Sheffields and a few other dealers who do not take any considerable surplus milk are understood to be a little over two dollars but their prices are not publicly announced. Both the League and the Sheffields announce a fluid milk price of $2.60 and lower prices for other purposes. It seems strange that the Sheffields do not pay almost the full price for they do not have, according to their patrons, any surplus to handle. Evidently they pool according to their own notions.

Occasionally now a man asks when his particular buyer pays more to the pool than the producer gets from it, what has become of the difference. We seldom hear the counterpart of this question which is in case a buyer takes milk for some cheaper product and pays less into the pool than the dairyman gets from that association. Evidently the two questions always belong together. Every one who thinks knows that if the organization keeps manufactured supply off the fluid market for the purpose of saving flooding and demoralizing the market and the proceeds of all are blended as all know to be the case, the blend will not be either the highest or the lowest price. Yet men ask the above question orally and once in a while in print, as was the case in Hoard's Dairyman not long ago. And he was in the pool too and should have read his contract.

FORWARD WISCONSIN
FARM FACTORY COMMERCE

Wisconsin Needs Straight Thinking on TAXES

OUR state now has the highest income tax rates of all the industrial states in the Union. Only 16 states out of the 48 have income taxes, and of these, only 6 are industrial states. Here are the income tax rates by states:

Mississippi, ½% above $2,500.
Missouri, 1% to 1½%
Delaware, 1% to 3%
Massachusetts, 1½% to 3%
Oklahoma, ¾% to 2% above $2,500
Virginia, 1% to 2% above $3,000
No. Carolina, 1% to 3% above $10,000
Arkansas, 1-10% to 1%
No. Dakota, 1% to 10% above $40,000.
So. Carolina, one-third of U. S. rates.
Montana, 1% on corporations only.
Connecticut, 2% on corporations only.
New York, 1% to 3% on individuals, 4½% on corporations. (No personal property tax)
Tennessee, 3% on corporations only.
Oregon, 1% to 6%
WISCONSIN, 1% to 7%

North Dakota, not an industrial state like Wisconsin, alone has higher rates.

But you know what happened in North Dakota!

When Wisconsin penalizes successful industry with high and yet higher income taxes and other states do not, three things happen:

1. **Many Wisconsin factories become branches and their home offices are moved to other states, greatly reducing the income tax paid in Wisconsin**
2. **Many valuable industrial men move out of Wisconsin**
3. **Few [if any] new factories from outside come to make their homes in Wisconsin**

This means loss of dollars and opportunities to every farmer, wage earner, merchant, banker—in fact, every citizen.

Send for free booklet, "The Story of Wisconsin"

WISCONSIN MANUFACTURERS' ASSOCIATION, Madison, Wis.

THE COMMITTEE IN CHARGE OF THIS "FORWARD" PROGRAM IS:
CARL A. JOHNSON, President Gisholt Machine Co., Madison
WALTER KOHLER, President Kohler Co., Kohler
GEORGE VITS, President Aluminum Goods Mfg. Co., Manitowoc
W. H. ALFORD, Vice-President Nash Motors Co., Kenosha
OTTO H. FALK, President Allis-Chalmers Mfg. Co., Milwaukee
F. H. CLAUSEN, President Van Brunt Mfg. Co., Horicon
GEORGE F. KULL, Secretary Wisconsin Mfrs. Ass'n., Madison

Farm and Factory Must Prosper Together



Learning to Express Your Thoughts

"How can I tell people what I think when I cannot express myself?" was the burden of a letter which came to me from a woman in a far off western state. This woman was well educated, had enjoyed many advantages, and has mastered her housekeeping to the point where she does have some time for reading good literature, making collections of poems, and giving a little time to painting. She says she can write good papers on various subjects for then she can take her time to look up words and copy some good sentences. But when it comes to talking, she just can't find words. How can she learn to express herself well?

I think there are probably many other women among our readers that find themselves in the same position as this woman in the West. Perhaps some of them are just a little timid, and are afraid they would not express themselves well. I think if one really has anything to say, it will be interesting to other folks. If the other party does not seem interested, even the best talker would do better to keep silent. It is a very rude habit to hold an unfortunate listener by the buttonhole and make him hear us out when he is not interested.

The first thing then in order to become a good talker, is to overcome our timidity. I believe that every woman has a great deal of knowledge and ability, as well as interesting little anecdotes, locked up in her. She must learn to express these in some attractive form before the world will be able to enjoy them or give her credit for them. If you believe this yourself you will soon overcome your timidity. If you think it is not true, then we had better be getting busy thinking and reading about something that will be worth hearing.

Let this then be the first goal to be accomplished: to conquer our own timidity. And let these be the means by which our goal is accomplished: First, let us try to think of something good every day that is worth passing on to a neighbor. We can do this by observing what we are reading, by noticing how an interesting trait of character is expressed in our children, a change of any kind that is unusual in the garden or that we find in our work. Second, try to tell only the best thing you have observed, never repeat anything disagreeable. having always in mind that your listener is worthy of the best only. Third, always use as good English as you are able to use, and do not allow yourself to get into slipshod and hasty ways of talking. Fourth, do not be afraid to practice talking. Try to say something, even when there does not seem to be very much to say.

To learn to express oneself well requires some time and practice. It is an art and like any other art, requires its sacrifices. Take the art of painting or of music, for example. Those fine arts are not to be attained by the crowd. Not even the just criticism of these arts is attainable without a great deal of natural gift. It takes a lifetime of devoted work to become superior in any of these arts. It takes constant practice, constant denial, and constant work. Many times it means the sacrifice of home life. But anyone wishing to succeed must be willing to sacrifice other things for the sake of her art.

Not so long ago books were not as cheap as they are now, and not so many people were able to read. Then more attention was given to being agreeable in conversation. Now we have become so busy that we no longer consider ourselves responsible for the flow of good conversation in our homes, at our tables, and in company with other folks. Still there is no other accomplishment that gives as much pleasure to our friends as good conversation and no other art can be so constantly or so effectively used. It has also been said that no other art is so praised by our fellows, and that people who fail in it are punished more or less by the dislike of their fellows.

If you really wish to improve yourself along this line you will not hesitate to spend a few moments at practice. You could do this by taking about five minutes each day to read some little short sketch and repeating it to yourself a great many times until you have almost memorized it. In that way you will soon get in the habit of remembering and also of using new words that you have not been using before. It will give you confidence and you will feel that you know what you are talking about when you are talking.

If you find it hard to remember, or to say what you want to say, then try writing it down. Write only short sentences. Write about the things you know best and write a little every day. Have definite subjects in mind when you are trying yourself out.

If you can spend only five minutes on yourself each day, do not be stingy with yourself, but give the whole of the five to the work you have in hand. Think hard about what you are reading. Think just as hard about your subject while you are writing. Do not try to read and remember everything in sight, but be sure that you have learned a little thoroughly.

With these hints and constant practice at home and when you are out, your conversation should soon show signs of improvement. And now we hope that no man with a talkative wife will get hold of this article, because if one should, he would wonder why such an article would ever be necessary.—SOPHIA K. ORMOND.

The All-too-common Cold

I was sniffling around the other day with a cold and wailing as I always do on such occasions, "Why don't the doctors do something for colds?"

Some one who heard me, spoke up and said (I think he must be a dyspeptic): "Good enough reason. It's the thing they can make the most money on with the least effort. The people of this country spend millions and millions of dollars every year trying to get their colds cured. You just know the doctors are not going to kill the goose that lays their golden egg."

There may be a few doctors like that but I feel sure that most of them do the best they know, for if they knew any way to cure colds quickly or avoid them entirely, they would not go about suffering from them themselves. I do not doubt that if as much time were spent investigating colds as is spent on cancer, for instance, we would surely have a solution for the problem but it will come in time.

There is no doubt that the average person looks on colds very differently from what he did ten or even five years ago. Their great menace lies not in the discomfort they bring, but in the consequences that are likely to follow. Getting all the people out of the attitude that "it's just a cold" is a long process but I think many of us will live to see the time when people with colds will no more go out and spread them around than they would a highly contagious disease.

Early fall is the season for the beginning of colds and they are on the increase right up through February. Hundreds of pneumonia deaths would be avoided yearly if people were not so low in vitality due to colds. I am not sure that we can all prevent ourselves taking cold but I think we know the signs well enough so that by doing the thing we know we should do, we can keep it from getting a real hold.

The medicine prescribed by the best doctors is a bitter pill to swallow for most of us; that is, stay in bed. Lying in bed when you have nothing but a slight sniffle and a feeling of being tired may seem a bit lazy but I have seen its wisdom proven again and again.

A day or two in bed, quantities of water, and not much food and the patient in nearly every case gets up better than he has been before. But let him decide to brazen it through and go about his usual work and he ends by dragging about for two weeks or so, miserable and inefficient. The logic of it is that the body needs all its energy to fight the cold and has none to spare for work.

Some of the big business houses in this country found out that most of the absenteeism on the part of their employees was due to colds. Their doctors have adopted the policy of having the patient stay in bed for a time and the result is that the absences from work are greatly reduced.

Big companies do not do that because they feel sorry for their workers; they do it because they find at the end of the year that they have saved money on it. I think that if we could check up, we would find the same thing.—LUCY THOMPSON.

Farm women spend a third of their waking hours in preparing and serving meals, a Missouri survey of farm household records shows.

A directory card with the more important numbers on it hanging handily by the telephone is a geat convenience. Have you one in your home?

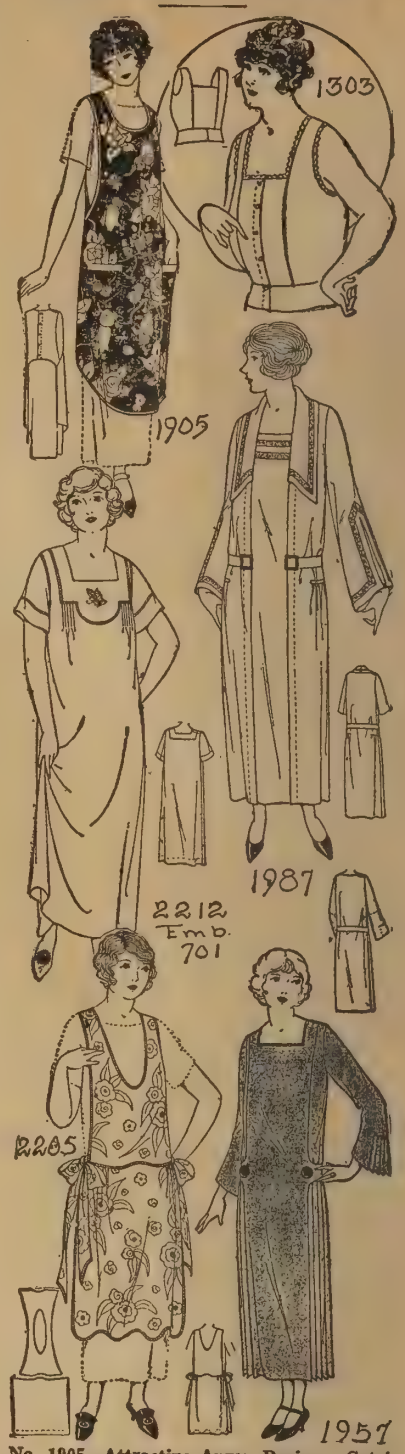
Talking is like playing on the harp; there is as much in laying the hands on the strings to stop their vibrations as in twanging them to bring out their music.—Holmes.

Blake—"Did your wife hear you when you came home late last night?"

Briggs—"Did she? Why, man, she wakes up when the thermometer falls."

Aunt Ada's Axioms: The home is sometimes known by the "company" is doesn't keep.

Miscellaneous Fashions



No. 1905—Attractive Apron Design. Cut in sizes 36, 40, 44, and 48 inches bust measure. Size 36 takes 1½ yards 36-inch material.

No. 1303—Slenderizing Corset Cover. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 takes ⅞ yard 36-inch material.

No. 2212—Dainty Nightgown. Cut in sizes 16 years, 36, 40, and 44 inches bust measure. Size 36 requires 3¾ yards 36-inch material. Hot-iron transfer pattern No. 701 (blue only) costs 15c extra.

No. 1987—Slenderizing Lines. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3⅞ yards 40-inch material.

No. 2205—Attractive Apron. Cut in sizes small, medium and large. The medium size takes 2¾ yards 36-inch material.

No. 1957—Smart Daytime Model. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3⅞ yards 40-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Some More Single Tax

HOARD'S DAIRYMAN:—Mr. R. W. Steed's letter proves that he has not taken the trouble to inform himself about single tax; either that, or he is guilty of deliberate misstatements.

The single tax is strictly a plan or method to solve that age-old problem of "who owns the land". It holds that land is a natural gift, or medium of wealth production, for whose existence man is not, nor can he be, responsible and therefore is common property. That no man has a right to exclusive possession of any of the valuable portions of it except he pay the value of it back to his fellow men.

The single tax, denying the right of men to "own" land as that word is generally understood, it still recognizes the justice, the wisdom, and economic necessity of exclusive private possession, and its plan is to take, for collective benefit, its annual rent.

The first mentioned variety of land would yield no rent. Farmers on the second variety, along with lumbermen and miners, would pay in rent according to the degree of fertility, timber, or mineral richness and accessibility to market the land possesses.

If "small towns" grow up in these districts with stores and other conveniences and diversions the rent of the land will be higher, in some instances much higher, than the rent of farm land.

It is when we come to the last variety that startling results are seen. For an acre of sterile land in some communities, men will gladly pay more in annual rent than for thousands of acres of even good fertile land. This extraordinary rent value is due to the numbers of people desiring to live and produce on that particular land. If, for instance, one-half of the people in the state of New York would move to the state of Washington, the rent of land there would rise much higher than it is now, while a decrease in rent value would take place in New York.

I have stated the single tax position; I would like every one to take up its study, and if mind and conscience approve, to come out and help those of us who are fighting its battles, but if there are men, like Mr. Steed, whose mind and conscience see in it an immoral proposition, it is their right, in fact their sacred duty, to oppose it. This does not give them the right, however, to make deliberate false statements regarding its aim and purpose. Single tax is not contrary to our fundamental law, but is based on one of the oldest fundamental laws, namely, "God made the land and gave it to all His children". It will not take, but will lay, the foundation of homes by making homes much cheaper and easier to acquire—through abolishing the first cost of sites to so-called owners, and all taxes after the homes are built.

Mr. Steed regrets that men of great wealth are not taxed (robbed) enough and "would, under single tax, not pay one-tenth the tax they do now", and the burden of taxation "would be laid on the laborers and farmers' homes. The poor hovel would pay the same tax as the mansion next door, even though the latter's income was a million dollars to the farmer's one."

These conclusions are so ponderously stupid and so manifestly untruthful, that they give a basis for my suspcion that Mr. Steed is "spoofiing". If they were within a thousand miles of the truth, the treasury of the commonwealth land party (now so pitifully empty) would soon be filled with the voluntary contributions of men of great wealth.

Maryland. OLIVER MCKNIGHT.

Advises Going Among the Working Class

HOARD'S DAIRYMAN:—In reply to R. D., who it appears, is afraid to sign his name, I will say I got my information from the teacher who made a personal canvass of many houses and found that the parents did not have enough income to feed their children properly, and that many went to school with but a scant breakfast and some with none at all. I have myself taken food to more than one workman's house to feed their hungry family and those men ready to work if it could be had.

You go down to the factory gates every morning and see the untold numbers wanting work, and you will find the few getting the wages Mr. R. D. speaks about. It's a fact a few are getting the wages he mentions but it's few and that for only a portion of the year; take the carpenter, brick mason, in fact all of us in the building trades. Take the recent report from the saw makers, the workmen are getting less than one-third of what wealth they produce; that is, if his labor power produced $100, he got less than $33, the difference is what has made our multi-millionaires. Is it just? How did Harriman make or get his millions, and the rest of the railroad magnates, if it was not taking too much toll. It is true we can trace all of our troubles back to the want of knowledge. The South does not produce as they should and take care of it.

When Mr. R. D. says men do not have enough to feed their families he does not know what he is talking about. Some years ago I managed a large farm and was allowed to pay but $13 a month to a married man. He got a shack and firewood but had to cut it after doing his day's work. How those men lived on it I do not know. I turned much to them to help them out. If Mr. R. D. will get out among the working class he will learn something different.

Wisconsin. JAS. H. BIRCHARD.

No Profit Guaranteed to Railroads

HOARD'S DAIRYMAN:—I notice in your issue of August 22nd, page 130, a very thoughtful contribution signed Howard Kimble, Minnesota. In the fourth paragraph of this letter, Mr. Kimble says, "our railroads have been guaranteed a profit, etc."

Hoard's Dairyman has uniformly been so careful about printing the truth and so courteous about correcting mistakes that I am quite certain you will permit me to show Mr. Kimble, if I can, that he is in error respecting this so-called guarantee. I shall try to be very brief. So much has been said on this question of an alleged guarantee that it might seem unnecessary to say any more, but here is an intelligent writer making the same old charge in your paper. Even the most rabid railroad baiters have ceased to declare any longer that there is a guarantee.

Let me quote to you the rate-making section—this is Section 15a, paragraph 2—"In the exercise of its power to prescribe just and reasonable rates, the commission shall initiate, modify, establish, or adjust such rates, so that carriers as a whole * * * will, under honest, efficient, and economical management and reasonable expenditures for maintenance of way, structures, and equipment, earn an aggregate annual net railway operating income equal as nearly as may be, to a fair return upon the *aggregate value* of the railway property of such carriers held for and used in the service of transportation * * * * *.

"The commission shall from time to time determine and make public what percentages of such aggregate property value constitutes a fair return thereon. * * * * In making such a determination, *it shall give due consideration, among other things, to the transportation needs of the country and the necessity of enlarging such facilities in order to provide the people of the United States with adequate transportation.*"

You will see, reading the words in italics, that the only guarantee here is that in making these rates, and in determining what shall be a fair return, the commission must see to it that the country has adequate transportation facilities.

The law provided that for two years, a period which ended March 1, 1922, this fair return should be 5½% to 6% as the final limit. At the end of that time the commission named 5¾% as a fair return.

Since this law (The Transportation Act of 1920) became operative, the railroads as a whole have not in any year earned the fair return to which the commission said they would be entitled. Indeed, they have failed by much more than a billion dollars to earn that fair return. Does anyone who understands the word "guarantee" suppose that if this act really held such an assurance against loss that the railroads would not have collected this billion dollars or more? And if they had attempted to collect it, would not the so-called friends of the farmers have risen in their wrath to prevent it?

I have told you the exact truth about this guarantee matter because in many ways it is the most misunderstood and the most objectionable feature in all the misrepresentations that have been circulated against our railroads.

Illinois. CHARLES DILLON



Better than aching backs

The first labor-saver that the woman of the family wants when the farm home is electrified is a washing machine; it banishes "blue Monday" by substituting electric power for her back-power.

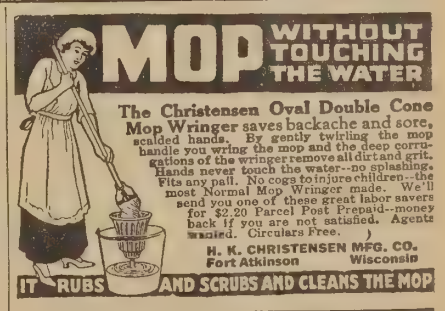
Then comes the electric iron—and after that the man of the family can decide where he needs electric power to take the load off his shoulders.

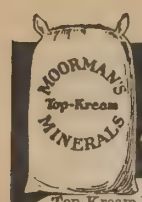
Electric light and power on the farm is an investment in better and happier living.

One of the most useful services performed by General Electric Company is the manufacture of little motors to operate the appliances that take the drudgery out of housework and farm work.

The new G-E Farm Book, giving interesting facts on the subject of farm electrification, will be sent on request. Write Section E, General Electric Company, Schenectady, N. Y., Chicago, Ill., or San Francisco, Cal.

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Science has produced Moorman's Top-Kream Minerals—a thoroughly tested mineral feed for dairy cows—a splendid appetizer. **Produces Larger Profits—Better Calves—Less Abortion—in many cases More Milk.** Phillip Thenis, of Illinois, fed 500 pounds—it stopped abortion—increased the milk flow. E. J. Koehnle, of Iowa, got increased milk gains from 1 to 3 pounds per cow per day. Few realize it but their cows are mineral starved. Now is the time to stop these losses. Top-Kream Minerals will do it.



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Test it yourself. To advertise this wonderful product—to give every dairyman the benefit of knowing about it, we'll send a sample bag, Free—no obligation ——enough to feed 24 cows. Feed it yourself—let your cows be the judge. You'll find they like it.

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Name.....

Address.....

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We are now baling our surplus alfalfa. If you would like a carload place your order now. Market prices.

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Fort Atkinson, Wis.

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Will relieve Coughs and Colds among horses and mules with most satisfactory results. For thirty years "Spohn's" has been the standard remedy for Distemper, Influenza, Pink Eye, Catarrhal Fever, Heaves and Worms. Excellent for Distemper and Worms among dogs. Sold in two sizes at all drug stores.

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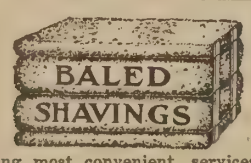


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DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets developed a somewhat unsettled feeling during the week ending Oct. 18th. Slight reaction following previous week's declines did not stimulate active business. There appears to be a tendency toward an increase in storage surplus since the first of the month as a result of slow business. This, together with heavy fall production and the influence of an unsettled butter market, offered little basis for confidence.

The average wholesale prices on American cheese, style Twins, for the week ending Oct. 18, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Oct. 18 1924	Oct. 11 1924	Oct. 18 1923
	Cts.	Cts.	Cts.
New York	20.0	20.5	25.7
Chicago	18.8	18.9	24.0
Boston	21.3	21.5	27.3
San Francisco	19.2	19.2	26.9
Wisconsin Boards	18.6	19.2	23.4

The receipts of cheese at these markets were 2,869,947 lbs. for the week as compared with 4,883,340 lbs. last week and 4,782,945 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets steadied somewhat on top grades during the week ending October 18 but were generally unsettled as the week progressed with weakness apparent at the close. Storage situation continued to be an important influence, production holding up remarkably well. Foreign markets were firm but exports light.

The average wholesale prices on 92-score butter for the week ending Oct. 18, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Oct. 18 1924	Oct. 11 1924	Oct. 18 1923
	Cts.	Cts.	Cts.
New York	39.0	38.5	48.0
Chicago	37.5	37.5	47.2
Philadelphia	39.5	39.4	48.8
Boston	38.8	38.3	48.0
San Francisco	39.1	39.7	47.9

The receipts of butter at these markets were 9,637,896 lbs. for the week as compared with 13,481,952 lbs. for last week and 11,091,281 lbs. a year ago.

MILWAUKEE, Oct. 25—Creamery extra, tubs, 36½c; standards, 34c; extra firsts, 33@33½c; firsts, 31@32c; seconds, 29@30c.

Eggs—Fresh gathered firsts (new cases), including cases, candled, 46@47c; ordinary, first standard cases), 44@45c; miscellaneous lots, shippers' cases returned, candled, 41@43c; seconds, dirties, 29@30c; checks, 20@28c.

Cheese—American full cream, Twins, 18½@19c; Young Americas, 19@19½c; Longhorns, 20@20½c; Daisies, single, 19@19½c; squares, 19½@20c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

CHICAGO, Oct. 27—(A. P.)—The butter market today traded quiet with prices unchanged, ruled steady to firm on the top grades. The lower scores were no more than steady and were freely offered. Buyers, while showing some interest, were very critical as to quality. Some inquiry reported in 88- and 89-score cars, but little business developed. Supplies of centralized cars were light, but ample to meet requirements. Fresh butter—92-score, 37c; 91-score, 36c; 90-score, 34½c; 89 score, 32c; 88-score, 29c; 86-score, 28c. Centralized car lots—90-score, 34¼c; 89-score, 32c; 88-score, 30c.

FOND DU LAC, Wis., Oct. 24—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 18½c; single Daisies, 18¼c; double Daisies, 18c; Young Americas, 18½c; Longhorns, 18¾c; square prints, 19¾c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Oct. 25: Single Daisies, 17c. On Farmers' Call Board, Oct. 24: Young Americas, 16½c; Longhorns, 17¼c; square prints, 18½c.

NEW YORK, Oct. 27—Butter—Firm; receipts, 6,702 tubs; fresh supply, 63,424 tubs; creamery extras, 38½c; specials, 39½c.

Eggs—Firm; receipts, 5,039 cases; fresh supply, 84,357 cases; white, fancy, 81@84c; fresh firsts, 43@47c; western whites, 38@80c.

Cherub Guernseys

FOR SALE, CIRCLE J. CHERUB'S SENSATION undefeated Sr. bull calf and junior champion at 4 leading Vt. fairs 1924. Sired by a son of Imp. Hayes Cherub II. Out of a prize winning A. R. daughter of Pencoyd's Golden Secret. Also 5 heifer calves of similar breeding, nicely marked. Priced to sell. Accredited herd.

HUBBARD BROS. St. Albans, Vt.

Twin City September Milk

The Twin City Milk Producers' Association paid $2.20 for 3.5% milk in September. Out of a total of 17,803,970 lbs. milk handled, 65% was sold to distributors. The expense of operation totaled 24 cents per hundred pounds milk. The association paid 40 cents a pound for fat in first grade cream.

League Price for September

The New York Dairymen's League Co-operative Association announces that its gross pool price for September for 3 per cent milk at the 201-210 mile freight zone is $1.93 per 100 lbs., or 21 cents more than for August. Deductions for expenses in September amounted to 8.5 cents, making the net pool price $1.845. Deductions for certificates of indebtedness amounted to 10 cents and the cash distribution is $1.745.

Guernsey Guests at Schwab Estate

Attended by some 80 members, their wives and friends, the annual fall meeting of the Central Pennsylvania Guernsey Breeders' Association was held Oct. 13th, at "Immergrun", summer home of Mr. and Mrs. Chas. M. Schwab. Blair, Bedford, Cambria, Huntingdon, Mifflin, Centre, Indiana, Somerset, and Westmoreland counties were represented.

M. T. Phillips, of Chester County, was the keynote speaker. Mr. Phillips, starting with virtually nothing, today is both a business man and an extensive breeder of Guernsey cattle in his home county. From his large herd have come many champion Guernseys.

"Any farmer," he told his audience, "has a chance to buy or breed champion cattle. But it is necessary for every big dairyman to have his herd tested for production and to use these records in building up his stock. Breeding is simply the improving of production of animals."

He spoke of the necessity of efficiency in his whole farming business and said that to realize a comfortable income the dairyman must take into account efficiency in production, marketing, and management.

Much interest was manifested in the report of N. C. Shane, cow tester for the association, who told of the 8 months of testing, beginning last February. During the months of August and September, Shane was given an assistant to aid in fostering Guernsey exhibits at the county fairs in Blair, Mixin, Huntingdon, Centre, and Cambria Counties.

Clochette's Dimple, a Jersey that is owned and was tested by Neil Elder of Ohio, has completed a very creditable 305-day official test, and has succeeded in winning both a gold and a silver medal.

Dimple started on this test when four years and eight months of age and in 305 days she produced, with calf, 626.03 pounds fat and 11,633 pounds milk.—American Jersey Cattle Club.

Carload Prices of Hay, Straw, and Feed, Oct. 18, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	28.50	27.00	.....	21.50	21.00	25.00	26.50	24.00	18.50	24.00	19.00	24.50	....	16.00	
No. 1 Clover, mixed	20.50	.....	.....	20.00	17.75	.....	.....	.....	17.00	.....	17.50	.....	.....	15.00	.....
No. 1 Clover	18.00	.....	.....	20.00	.....	.....	.....	.....	18.50	16.00	.....	20.50	.....	16.50	.....
No. 1 Alfalfa	.....	28.50	.....	.....	.....	33.50	30.00	29.00	27.00	23.00	22.00	28.50	18.00	20.75	.....
Standard Alfalfa	.....	25.50	.....	.....	.....	24.50	28.00	26.50	.....	20.00	19.50	.....	15.50	19.50	.....
No. 2 Alfalfa	.....	25.00	.....	.....	.....	22.00	.....	24.00	24.00	16.00	16.00	19.00	13.50	17.00	.....
Oat Straw	13.00	14.50	14.00	12.50	13.50	.....	.....	.....	9.50	9.50	8.50	.....	8.50	.....	.....
Feed—Bagged															
Wheat Bran															
Spring	32.25	.....	32.50	31.00	30.50	34.00	.....	.....	29.50	27.50	25.00	.....	.....	.....	.....
Soft Winter	35.00	.....	34.50	32.00	34.00	34.00	.....	.....	30.00	.....	.....	26.50	.....	24.00	39.00
Hard Winter	.....	.....	33.50	31.00	...	33.50	.....	28.00	29.50	27.50	.....	26.00	24.00	24.00	.....
Wheat Middlings															
Spring (Standard)	34.25	.....	33.50	.....	33.00	38.00	.....	.....	32.50	29.75	27.00	.....	.....	.....	.....
Soft Winter	40.50	.....	40.00	37.00	34.00	40.00	.....	.....	36.50	.....	.....	.....	.....	31.00	46.00
Hard Winter	.....	.....	.....	39.00	.....	37.00	.....	.....	36.50	.....	.....	32.50	31.00	31.00	.....
Wheat Millrun	35.50	.....	35.00	.....	.....	37.00	.....	.....	.....	.....	29.00	.....	.....	26.50	38.00
Rye Middlings	.....	.....	.....	32.00	.....	.....	.....	.....	.....	.....	26.00	.....	.....	.....	.....
High Protein Meals															
Linseed	51.50	.....	50.75	50.50	.....	.....	.....	.....	48.50	47.60	44.50	48.50	52.00	48.75	47.00
Cottonseed (41%)	49.25	.....	48.00	45.50	.....	.....	.....	40.50	44.50	45.00	47.00	42.50	.....	.....	.....
Cottonseed (36%)	45.50	.....	45.00	42.50	44.25	37.50	.....	37.00	41.50	41.50	43.00	40.00	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	60.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	33.00	.....	.....	28.00	28.50	27.25	.....	26.00	27.00	22.00	31.00
Gluten feed	47.95	.....	46.90	44.70	47.00	.....	.....	.....	42.70	40.80	43.90	.....	.....	.....	.....
Hominy feed (white)	44.75	.....	43.75	.....	45.00	47.00	.....	.....	40.50	38.50	...	36.50	38.50	.....	.....
Hominy feed (y'llow)	44.50	.....	44.00	.....	44.00	46.00	.....	.....	40.50	38.50	37.00	...	38.50	..	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	.....	44.00	.....	.....	.....	51.00
Dried Beet pulp	.....	.....	.....	37.25	39.00	.....	.....	.....	.....	.....	33.00	.....	.....	.....	37.00

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120 head yearlings and two-year-old heifers.
50 heifer calves eight mos. to one year.
30 bulls one to six years old.

Many of these animals have large advance registry records. Many were leading prize winners on show circuit this season.

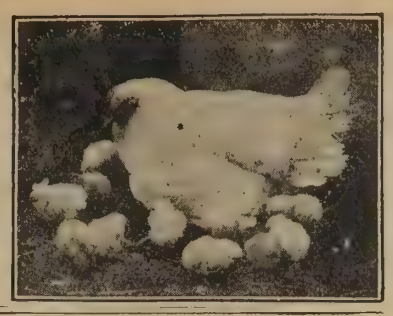
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POULTRY On The DAIRY FARM



O. A. HANKE

A Call for the Molters

A long year of production is a heavy drain on the system of the laying hen. The manner in which they get through the molt determines in a measure the following year's production. Feed the late molter well. She is the most valuable hen of the lot. Help her rebuild her body and replace her old feathers with new ones and she will get off quickly to another year's production.

Just as the finishing period of the pullet determines her year's lay, the feeding of that pullet during her yearling molt determines her production during the second year's production. In those flocks which have been culled once or more during the summer, the hens which still remain in the flock should be retained for the second year's lay.

Feeding the Molters

The molting period requires feeding for several purposes. The ration should contain protein for feather-building, fat for body building, and other elements, principally minerals, for replacement in the body. The following ration is very satisfactory during the molting period: 150 lbs. corn meal, 100 lbs. wheat bran, 100 lbs. wheat middlings, 100 lbs. ground oats, 100 lbs. meat scrap, 20 lbs. oil meal, 20 lbs. bone meal, 3 lbs. salt.

Skimmilk is good for both molters and laying hens and where there is a supply the hens should be given all they will consume.

The corn meal serves as a source of fat. It is quite necessary that the molting hen gets in a good condition before she begins to lay. The meat scrap supplies the hen with protein for the building of the feathers and for the reconstruction of muscles and body tissue. The bone meal supplies the calcium and phosphorus for the bones and muscles. The following whole grains should be fed with this mash mixture: Three parts by weight of whole corn and one part by weight of oats.

The farmer should feed the hens corn as soon as it is available this fall. If corn is not available the corn in the mash mixture may be replaced by an equal part of ground barley and the corn in the scratch may be replaced by throwing corn on the cob to them.

Poultry House Fixtures

It will be well to feed the mash in some form of open hopper in the poultry house. The hens will be protected from the chilly winds and will thus eat more feed. Keep a layer of straw on the poultry house floor and the hens will be more comfortable.

This is a good time to give the house a thorough cleaning. Hens which are infected with lice and have mites feeding on them, do not molt quickly. Clean the house thoroughly and then disinfect. A mixture of three parts kerosene and one part crude carbolic acid will prove to be a very good, home-made, cheap disinfectant.

Thoroughly soak the roosts with this mixture and then whitewash the house if time enough is available. There are a great many efficient, easily mixed whitewash sprays. The following mixture is easily made, sticks well, and has disinfecting properties: One-half bag hydrated lime, 6 lbs. common table salt, 1 pint molasses, 3 ozs. ground alum, 10 gals. hot water, 1 qt. disinfectant.

This work should be done early in the morning so that it will be dry by night. This whitewash may be put on with a brush or with a barrel spray outfit and twenty to thirty feet of hose. The spray method is best for then the whitewash is forced into the cracks and crevices in which the mites live.

Winter Eggs from the Molters

Hens which molt late will complete their molt in four to six weeks if fed and cared for as suggested. Many of these hens will be ready to lay in December and will help to fill the egg basket during the latter part of the season of highest prices. The better hens will drop all of the feathers quickly and will appear about the farmstead almost naked. Those hens are worth their weight in gold. Guard them and care for them as you would gold and they will form a valuable asset to the poultry flock for their second year of production.

Bulletins of the Week

Culling for Efficient Egg Production, by W. H. Rice. Bulletin 35, University of Maryland Extension Service, College Park, Md.

Co-operative Central Marketing Organization, by J. D. Black and H. B. Price. Bulletin 211, Minnesota Experiment Station, University Farm, St. Paul, Minn.

The Care of Farm Gas Engines, by C. C. Johnson. Popular Bulletin 129, Washington Experiment Station, Pullman, Wash.

35 Lb. Show Bull

Homestead breeding. Born Nov. 19, 1923. Son of our Wisconsin State Champion, Nellie Empress Homestead, with 35.03 lbs. of butter from 565.3 lbs. of milk, at four years. A splendid individual. A prize winner at the State Fair. Accredited herd. Write for pedigree, photo, and price.

LEWIS BROS. **Lake Beuhlah, Wis.**

What a Little More Butter and Egg Consumption on the Farm Would Do

Take Butter, for example —

The per capita consumption in the United States is only 17 pounds per year, whereas it is over 25 pounds in Canada.

This year the holdings of butter in cold storage houses are about 54 million pounds more than a year ago and, besides, the daily make has been very heavy right along.

Pastures have been so good that unusual quantities of cream have been received, and the creameries must of course take what is offered and manufacture it into butter.

The result is an unusual production this year.

How can you farmers assist in absorbing this heavy yield? Simply by *eating more butter in your own homes.*

Think what a wonderful stabilizer for the price of butterfat it would be if every farm home consumed a few pounds of butter more per year! It would increase consumption by millions of pounds and each producer would benefit from it.

The Chicago Mercantile Exchange—the great wholesale market dealing in butter and eggs for both immediate and future delivery—is helping to stimulate butter consumption this year. You as producers can help, too, by following the above suggestion.

Chicago Mercantile Exchange

LA SALLE ST. at LAKE ST.

The Market Place for Butter and Eggs



Save Money on Feed

Grind it yourself. Save miles of haul, hours of time and dollars of profit. You can grind a wagon load of stock feed, rye or graham flour in an hour at a cost of 15 cents with a

HOWELL *Roller Feed Mill*

Built like large custom mill. Grind twice as fast and one-half cheaper than buhr mills. Grind rye or graham flour. No buhrs, no stones to wear out. Guaranteed to get the wild oats. Lasts a lifetime.

13 Sizes—any capacity—a size for every engine. Write for catalog. R. R. HOWELL & CO., 4 Malcolm Ave. S. E., Minneapolis, Minn.

SALE ANNOUNCEMENTS

Nov. 1—Troy—Canton Holstein Breeding and Sales Ass'n. Fourth Annual Consignment Sale.
Nov. 1—Holsteins. Washington County Breeders and Oscar W. Hanson Dispersal at White Bear, Minn. Twin City Pedigree & Service Co., Minneapolis, Minn., Mgrs.
Nov. 3—Barron County Jersey Breeders' Association Consignment Sale at Barron, Wis. Hugh A. Feagle, Barron, Wis., Sales Manager.
Nov. 5—Holsteins. Fuhrman Canning Sale at De Forest, Wis. F. H. Everson, Sales Mgr.
Nov. 5—Holsteins. First Annual Sale. Clair F. Limbeck, McGregor, Iowa.
Nov. 5—Holstein Dispersal. Robert A. Ryan, R. 2, De Pere, Wis.
Nov. 6-7—Holsteins. Green County Breeders' Semi-annual Sale at Monroe, Wis. J. W. Keating, Secretary.
Nov. 7-8—Holsteins. Hanson—Hackney Holstein Sale at St. Paul, Minn. Twin City Pedigree and Service Co., Minneapolis, Sale Mgr.
Nov. 14—Holsteins. Postdale Farms Dispersal, Durand, Michigan.
Nov. 14—W. W. Marsh Cherub Guernsey Sale. Inter-state Fair Grounds, Trenton, N. J.
Nov. 15—Goodhue County Holstein Breeders' Annual Sale, Zumbrota, Minn. 60 Registered Holsteins.
Nov. 15—Holsteins. Sale of the Milking Herd of Registered Holsteins. Hollyhock No. 3, Dousman, Wis. W. L. Baird, Sales Mgr.
Nov. 17—Pure-bred bull sale, Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Secretary.
Nov. 17—Holstein Dispersal, Oak Hill Stock Farm, John H. Smith, Prop., Crown Point, Ind.
Nov. 18—Holsteins. Annual Quality Sale. Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Sec'y., Waukesha, Wis.
Nov. 19-20—Guernseys. The Western Wisconsin Guernsey Cattle Breeders' Sales Ass'n., West Salem, Wisconsin.
Nov. 20—Holsteins. Cowdenside Herd Sale. R. N. Thompson, Cowden, Ill.
Nov. 21—Holsteins. Manitowoc Co. Holstein Breeders' Consignment Sale at Manitowoc, Wis. Chas. Hampke, Secretary.
Nov. 21—Holsteins. Monclova Stock Farms, Monclova, Ohio.
Nov. 21-22—Arden—Mineral Springs Fall Sale, St. Paul, Minn. 70 Registered and 100 Grade Holsteins.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 25—Holsteins. Dispersal Sale of H. H. & R. C. Walker at Du Quoin State Fair Grounds, Du Quoin, Ill.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.
Dec. 9—Holsteins. Dispersal of J. M. Kelley herd at Baraboo, Wis. Frances Darcey, Sales Manager.

La Belle Silver Fox Farm

INCORPORATED

Breeders of—
HIGHEST QUALITY REGISTERED
SILVER BLACK FOXES
Fully Guaranteed Breeding Stock for Sale



It will pay you to investigate this wonderful new industry. We solicit your consideration.

DR. O. STADER, Secretary, Oconomowoc, Wis.
Members of the National & Wis. Fox Breeders' Ass'ns.

SWINE

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HAMPSHIRE BOARS, PIGS, GILTS

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WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Iowa Dairy Juniors at Waterloo

FRED E. FERGUSON

OH, boy! Were you one of the lucky fellows who attended Dairy Cattle Congress, located at Waterloo in the "Tall Corn State"—Iowa—Wednesday, September 24? "Club Day" smashed all former attendance records in the fifteen years the show has been held and there was a mighty significant reason—the dairy juniors of Iowa put it over the top.

The first club program for dairy juniors was held in 1922 when 47 boys and girls showed their calves representing two breeds, and the junior dairy cattle judging contest drew 15 boys. Last year there were 76 boys and girls who showed calves of three breeds and 52 boys and girls were in the junior judging contest, with an added feature of two demonstration teams contesting. This year there were 129 boys and girls who showed their dairy club heifers, in which all five of the dairy breeds were represented; there were 21 teams of three boys and girls each in the judging contest and enough individual entrants to bring the total contestants up to 87. This year there were four demonstration teams that competed for the championship of the state and the right to represent Iowa at the National Dairy Exposition in Milwaukee.



WEBSTER COUNTY FIRST PRIZE COUNTY HOLSTEIN GROUP
Left to right: Verna and Robert Peterson, Paul Jacobson, Donald and Gerald Peterson. Almost a family proposition, don't you think?

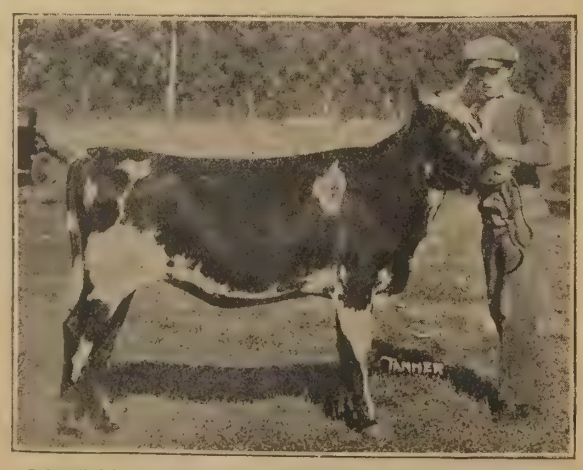
The junior program opened on Monday, September 22, the first day of the Congress, with the judging contest. One class of cows of the Holstein, Brown Swiss, Jersey, and Ayrshire breeds was placed and one class of Guernsey heifers. Judge Burt Oderkirk, Iowa State College, gave Franklin County a total team score of 992, the highest of the 21 teams. Robert Stewart, Fayette County, made the highest score on all breeds and received the gold medal given by Dairy Cattle Congress. The other medal winners were: Second, Harlan Leonard, Franklin County; Gertrude Kaiser, Clayton County, third. The winning team composed of Lester Olson, Raymond Monahan, and Harlan Leonard won highest honors for Iowa at the National Dairy Exposition. The Brown Swiss Breeders' Association, the Iowa Holstein Breeders' Association, and the Iowa State Dairy Association contributed expense money.

The four demonstration teams competed on Tuesday. P. C. Taff, state club leader of Iowa, judged the demonstrations and he selected Black Hawk team, composed of Richard Sucher, Guernsey club member of Cedar Falls, and Helen Cunningham, Holstein club member of Waterloo as the winner. They demonstrated the selection of dairy cows by indications of type and followed with testing a sample of milk which lead up to a discussion of cow testing association work. This team won first at the State Fair in Des Moines last August in the class for miscellaneous teams and was a close contender for champion team. The members were coached by their club leader, R. C. Munkwitz.

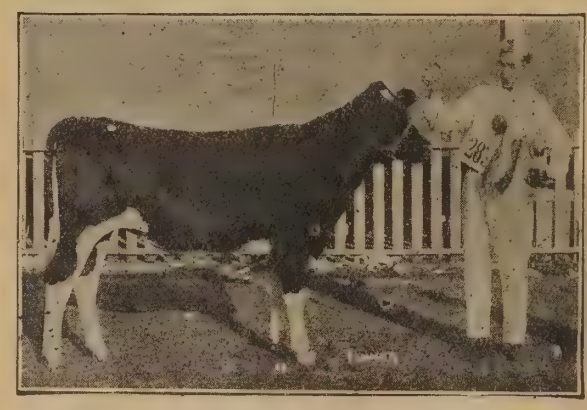
The judging of the 129 club calves began promptly at noon, Wednesday.

Both Professor Kildee and L. V. Wilson worked on the classes of Holsteins. Earl J. Cooper, national Holstein club leader, declared the class of yearling Holstein club heifers was the greatest he had ever seen at any show. Gerald Peterson emerged the winner. Gerald is a brother of Verna Peterson who last year had the champion Holstein club heifer. Verna this year stood third in the class, while her brother, Donald, was fourth and her brother, Robert, fifth. The calves owned by the four Petersons and the yearling owned by Paul Jacobson composed the county group which later won first among the thirteen and won the silver loving cup offered by Iowa Holstein Breeders' Association.

There were 58 boys and girls who showed Holstein calves born since Aug. 1, 1923. Robert Stewart, winner of the individual honors for junior judging, was selected winner in this great class. Robert later defeated Gerald Peterson for grand champion Holstein club heifer.



LOUIS M. FROST, CHAMPION AYRSHIRE SHOWMAN
His heifer, Redwing of City View, was likewise a champion.



JOHN WILCOX, CHAMPION CLUB SHOWMAN OF IOWA—ALSO CHAMPION HOLSTEIN SHOWMAN

There were 78 Holsteins in the club show this year; 24 Guernseys, 15 Jerseys, and 6 each of Brown Swiss and Ayrshires. These were very comfortably housed in the brand new hollow tile barn, which all agreed was far better than the tent of a year ago. Most of the counties are planning to be back next year stronger than ever.

One of the features on Wednesday was the fitting and showing contest. J. C. Cort, Lake Mills, Wis., and Harry Cave, Manhattan, Kans., acted as judges of this contest. They worked at the same time as the regular calf judges.

Dairy Calf Club Awards

Judges: H. H. Kildee, Ames; L. V. Wilson, Minnesota; Harry Cave, Kansas; Joe Cort, Wisconsin.

Ayrshires

Heifer born since August 1, 1923 (5 shown): 1 and grand champion—Louis M. Frost on Redwing of City View; 2, Vera Spies on Vivian of City View; 3, Floyd Spies on City View Hortense.

Champion Ayrshire showman: Louis Frost, Waterloo, Ia.

Holsteins

Yearling heifers (23 shown): 1, Gerald Peterson on Riverdale Ota Van Friesland 2d; 2, Dorothy Hanson on Fannie Macduff Janzen; 3, Verna Peterson on Pauline Champion Hartog.

Heifers (59 shown): 1, Robert Stewart; 2, Waldo Albrecht on Lady Verma Segis; 3, Myrna Pieplow.

Champion Holstein and grand champion showman: John Wilcox.

Brown Swiss

Yearling heifers: 1, Emil Thoms.

Heifers (5 shown): 1, Margaret Mooney on Schonnette; 2, Albert Keskje on Madam Merry Boy of Allynhurst; 3, Ivan Thelander on Elsie M. of Elmhurst.

Guernseys

Yearling heifers (3 shown): 1, Helen Lee; 2, Harold Bauer on Anderson's Rose; 3, Robert Lee.

Heifers (21 shown): 1, Marple Mountain on Cherub's Beautona of Iowanola; 2, Erwin Orth; 3, Wm. Schmidt.

Grand champion Guernsey heifer, Marple Mountain.

Champion Guernsey showman: Harold Bauer.

Jerseys

Yearling heifers (12 shown): 1, Donald Hansaker on Proud Lad's Fairy; 2, Merle Stroud on Western Oxford Viola; 3, Mary Way on April Shower's Championess.

Heifers (4 shown): 1, Ralph Nesfiled on You'll Do Mary Jane; 2, Havard Hedrick on Lady's Silverine Velvet; 3, Lorenze Strottman on Financial Naiad's Pet.

Philosopher Phil Says

When you are headed for a good time, would you walk back three miles to see that your calf is properly taken care of? Once a calf club member did this very thing. He was going away for the day to have a good time. Before he left he remembered that his calf should be fed, so he went to his father and asked him to feed his calf when the hour arrived. His father consented.

Thinking his duty performed, the boy started off afoot for his destination several miles away. He had gone, perhaps three miles from home, when he suddenly remembered that he forgot to tell his father what and how much to feed his calf. He pondered a moment, but only a moment, and then turned square around and walked back those three miles that his calf might be properly fed.

This, boys and girls, is loyalty. If you would do the same under like circumstances, then you are a true Hoard's Dairyman Junior.

In Memoriam

The club boys of Virginia were saddened at the untimely death of their state boys' club leader, Charles G. Burr, on Saturday, September 20. He was killed in a street car accident in the city of Petersburg.

A friend of farm boys; a lover of farm boys; and a servant of farm boys has departed. But we bow to the will of our Heavenly Father, Who knows what is best.—The Carolina Club Boy.

Ten-year-old Champions

What do you know about it?

Three ten-year-old calf club girls won the championship of the three principal dairy breeds at the Minnesota State Fair this year. Nearly 2,000 Minnesota boys and girls enrolled in dairy calf clubs this year and 172 calves were shown in the boys' and girls' show at the fair under the direction of E. A. Erickson, State Club Leader.



EVELYN LEINENWEBER OWNS A CHAMPION

Evelyn Leinenweber was one of the ten-year-old girls and she not only had the champion pure-bred Holstein calf, but also had the grand champion over all breeds. Here is what Evelyn says about how she cared for her calf:

"Sizerholm Sadie Vale Homestead was born November 13, 1923. She is a nice, gentle calf, and I fed her three times a day equal parts of ground oats, corn, and bran, and one part oil meal, about two pounds to a feeding, with all the clover hay, salt, and clean drinking water she

wanted. I brushed her every day and washed her once a week. I lead her around every day and make her stand still and hold her head up so as to train her to show to the best advantage for the fair."

Evelyn owns two other heifers, one a grade Holstein, and with the increase and products of her little herd expects to pay her way through the School of Agriculture at University Farm (Minnesota) which she plans to enter, she says, just as soon as she has finished the eighth grade.

New York State Juniors

A recent report from New York State says that for the year 1924 there was a total of 15,475 boys and girls enrolled in junior extension work. This is an increase of nearly two thousand juniors over last year. Forty-five of the fifty-six agricultural counties in the state were represented in this figure.

Clothing proved to be the most popular project, followed by gardening, poultry, food, potato, dairy, canning, corn, pigs, and sheep.

W. H. Wright is the New York State Club Leader.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

In the October issue of Hoard's Dairyman you will find a further discussion of the following:

Give Reverend Everett S. Smith's prescription for the best health medicines. Air, sunlight, water, and diet.

Tell about the service of the Milwaukee Milk Producers' Association. It is estimated that the price of the market milk so far this year has been about forty cents a hundred higher than it would have been without this co-operative marketing association. G. R. Rice is the Secretary-Manager.

What is the net income of F. A. Chester? From $4,500 to $6,900 yearly in the past four years.

Why did he go farming? Fifteen years ago Mr. Chester was a business man in Illinois. He thought he saw greater opportunties in farming, as this would give him a healthier life and his four boys and two girls the best place in the world to be reared. He purchased a two-hundred-acre farm in Iowa and moved onto it.

What Made him successful? Application of business principles to dairy farm work. He started right away to find out which of his cows produced a profit and which did not. That was in 1911. Later when opportunity presented itself, he joined a cow testing association. His success may be partly measured by the fact that his three sons, having passed the age of 21, are all actively interested in the business.

How does Mrs. Chester care for her chickens? Last year chickens brought the Chester family a net profit of $532.50. "My chickens get sour milk the year around; they get oats in the morning and have a dry mash consisting of ground oats, ground corn, bran, tankage, flour middlings, and salt in front of them all the time. I gather the eggs promptly every day and cull the poor chickens during the summer," says Mrs. Chester.

Discuss two versus three milkings a day. An experiment has been under way at the New York Experiment Station in the past two years to determine whether or not it pays to milk a cow three times a day. Mr. Dahlberg finds that it is long period records that will be bettered by three milkings a day. Definite results have not been announced.

Can they grow alfalfa successfully in Georgia? Yes. The important needs for growing alfalfa seem to be lime and acid phosphate. Alfalfa is grown largely as a cash crop in Georgia. (See page 441.)

Junior Letters

A Junior Bronco Buster

Hoard's Dairyman Juniors:—I am 16 years old. Our ranch is about 12 miles from town. We have a section of land or 640 acres with plenty of range land around it. Near our place there are large red hills covered with shale and cedar trees. Last summer my sister and I went to these hills and climbed to the top. We could see for miles away over the "bad lands" and we could see the Yellowstone river which runs through the "bad lands" not far from us. We do not have to buy coal or wood here because we can get it ourselves. We have had several dry seasons here and many homesteads are deserted.

We are milking fifteen cows nows and feeding 12 calves. We also have 125 range stock. There is no calf or pig club here because there isn't enough pure-bred stock where I live. We have four sows and 23 little pigs. Last spring my father was sick and I had to put in 65 acres of corn which turned out to be good and I also raised 125 chickens but didn't have very good market for them, so this spring I am going to try to raise turkeys. I bought a gobbler and two hens.

I ride very much in the summer time and I am very familiar with horses. My sister and I have broken bad horses into good saddle horses. We have seven saddle horses of our own but one I like the best of all. He is pure white and I named him Bingo because he is so swift and quick.

A few years ago Bingo was the swiftest horse in the country but he is slowing down now because he is getting old. I am the only one that can ride him. He is very strange. I won first prize in the ladies' relay race at the county fair and got $25. I rode three horses, two of our own, and the other I borrowed.

My sister and I went to the bad lands last June and near a large coulee we saw six little puppy coyotes running to their den. Then next morning my father came with a shovel and dug only one out. The others got away during the night. I tried to tame it but one morning it got out of the box and got away. There are many coyotes and several wolves here. They do much damage to the range stock as we had about ten calves killed by them one summer. They are having now a government trapper here. He has captured several wolves and a den of wolf puppies and many coyotes.

I will close now by hoping to hear from some of the juniors. I will answer their letters. My address is Box 24, Ferry, Mont.

Cora Groot.

Out on the Great Plains

Hoard's Dairyman Juniors:—I am a boy 12 years old and in the 7th grade. I live three miles east of Winona, Kans., on a 320-acre farm. We have the Holstein breed of cattle. We are milking 9 at present but in a little while will be 13. We live out on the Great Plains and there is only one place on our farm that a cow can get that we can't see her from the house. The place is about 20 acres in size. One-half of the farm is pasture and on the other 160 acres we grow sorghum and small grains.

I have a cow that is a pure-bred Holstein and her name is Beauty Colantha Segis. She has raised me four bulls and last year (December 1922) she had a heifer calf for my Christmas present. I named the calf Beauty Colantha Segis 2nd. She dropped a heifer January 1, 1923, and has just dropped another heifer (January 20, 1924). This makes me one cow and two heifers.

Papa and I own 38 head of mules and 13 horses. We have a fair sized barn 48 feet square. We have it divided up in 16′ spaces the full length of the barn. The west side is for horses, the east for the cows, and the middle for hay, as we have no hay mow floor. The house is 14′x24′.

Lester Higgins.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

A Radio Outfit

For Hoard's Dairyman Juniors



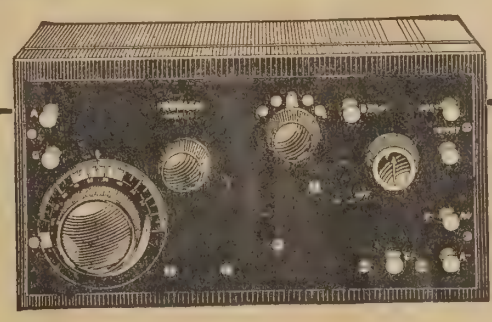
We figure that every Hoard's Dairyman Junior wants a Radio set. You do, don't you? I'll bet you do! There isn't any keener fun anywhere than sitting right in your own home and listening to concerts, speeches, etc., being given in the big cities. It's a wonderful thing, radio is. But just how wonderful, no one ever realizes until he has a set. You want one, of course!

Well, here's your chance to get one! And get one without spending a cent of your own money! All you need to do to earn this set is to go among your neighbors and get them to subscribe for Hoard's Dairyman.

How many subscriptions do you need to get it? Just send the coupon, and I'll tell you all about it! And I'll help you get it, too!

Send it today—and before many more days roll around you can be putting up this "Little Wonder" in your own home!

THE RADIO MAN,
Care Hoard's Dairyman.
Fort Atkinson, Wis.



This Two-tube Receiving Set

FREE To Hoard's Dairyman *Juniors!*

This set we offer our Juniors is the one that set the radio world afire! In just twenty-four days after being announced, this Crosley two-tube receiver became the most popular radio outfit in the world, so the manufacturer tells us. And I will tell the world it deserves its popularity. I've got one in my own home, and it brings in stations from coast to coast, regular as a clock and clear and sweet as a bell!

And you can enjoy this little wonder set—this winter. All the pleasures of radio can be yours, now, without spending one single cent of your own money!

For we will furnish this set to our Juniors complete, including the set, tubes, batteries, head phones, aerial wire—nothing more to buy; nothing to do except erect it—and with our instructions any Junior can hook it up in less than an hour. This set, complete as we offer it, would cost not less than $35.00 at your local store—but Hoard's Dairyman Juniors can get it without spending a cent. Send the coupon below and we will tell you how—and help you to get it.

COUPON

RADIO MAN, Care Hoard's Dairyman,
Fort Atkinson, Wisconsin.

I want one of those Type 51 radio sets. Tell me how many subscriptions I'll have to get to earn one. Send me supplies so I can start right out as soon as I get your letter.

Name .....

P. O. ..... R. D. ..... State .....



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha, Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

Holstein Springers and heifers, car lots or less, priced reasonable. EDW. YOHN, Watertown, Wisconsin. 12-5

Holstein Herd Sires for sale or will trade for either grade or pure bred federally tested females. No. 1 Norrth Star Gift Champion, a 4 year old son of Johanna Bonheur Champion. Dam, the great 1,000 lb. cow, Little Gift of Spring Valley. No. 2, King Fayne Star Pontiac Segis, a 4 year old son of King Segis Pontiac Count. Dam, Johanna Fayne Star, 31 lb. daughter of Sir Johanna Fayne. Come and see them or write WALCOWIS FARMS, Lake Geneva, Wis. 12-*

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

Herd Bull for Sale—Sir Pontiac Echo imported from Canada. 75% same blood $106,000.00 bull "Carnation King Sylvia," sell one third cost. DWAYNE WHITE, Elkader, Iowa. 15-2

1,000 lb. yearly record two year old bull for sale. Prilly breeding, sires nearly all heifers and straight rumps. Retest. Price $500.00. O. WESTERHEIDE, New Douglas, Ill. 15-*

A few serviceable and near serviceable registered Holstein bulls. Also all classes of females. MARINETTE COUNTY ASYLUM, Peshtigo, Wis. 15-4

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Holstein Bulls, all ages by 100 pound milk and 40 pound butter sires. Farmers Prices. ROY HARRIMAN, Appleton, Wisconsin. 14-spl

For Sale—Pure bred Holstein herd, 15 head. Headed by 32-989 lb. sire. All have A. R. O. or C. T. A. records. Federal accredited. Have rented farm on account of illness and must sell at once. L. H. MATZKE, Good Thunder, Minn.

For Sale—High grade T. B. tested, Holstein springers, carload lots. S. L. MURDAK, Troy Center, Wisconsin. 16-Spl.

Registered Holsteins—Excelent breeding, all ages, reasonable. A. Hopson, Girard, Illinois.

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Have 25 high grade Guernsey heifers, 10 yearlings and 15 two year olds. Will take $50.00 per head for entire herd. JOHN PETERSON, Waupaca, Wis. 14-*

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-18

10 Registered Guernsey cows and heifers from 2 to 7 years old. J. N. McLEOD, Platteville, Wis. 15-3

Five Registered Guernsey heifers for sale coming 2 years old. Sired by Upland's Challenge whose dam, Uplands Hulda, has 743 lbs. fat. They are bred to Cinderella's Fame of Mound City, a son of a 909-lb. cow. HOMER RUNDELL, Linwood Farm, Livingston, Wis. 10-Spl

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

Serviceable Registered Guernsey Bulls and bull calves—some from 600 lb. dams. Also choice heifers. A. R. breeding. Creamland Guernsey Farm, East Troy, Wisconsin.

Registered Guernsey male 7 months, papers transferred, express prepaid. GERTIE SWISHER, DeLand, Illinois. 16-3

Registered Guernsey open heifer from A. R. Dam. Price $100. CHAS. BALCOM, Ohio, Ill.

Guernseys—Pure bred and grades. Cows, bred heifers, yearlings, calves. Bulls. Accredited herd. GEORGE SIMPSON, Owensville, Indiana.

For Sale—Registered Guernseys. Four cows due to freshen with second calf early in winter. One bred heifer due in December. One heifer open. Surplus stock. Lot priced for quick sale. Accredited herd. BARTZ BROS., Box 97, Valparaiso, Indiana.

To Make Room for winter will sell 15 Registered cows and heifers, some with A. R. records. Also a few young bulls of serviceable age. Price reasonable. Send for lists. VERNDALE GUERNSEY FARM, Burlington, No. Dak. 16-2

Registered Guernsey Bull, our herd sire, for sale or exchange. 5 years old, dam's A. R. O. record 583 lbs. butterfat. Also a few grade yearling heifers. Herd T. B. Tested. SVANBERG & ANDERSON, Wilton, Minnesota.

Jersey Bull—Typy two year old from University of Wisconsin herd. Reasonable. GLEN EYRIE FARM, Delavan, Wis. 16-2

For Sale—Ayrshire bull calves from A. R. cows. Write for photos and other information. A few heifers to offer also. Herd federally accredited (3 years). SYCAMORE FARMS, Douglassville, Penn.

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. Catalogue. BECKENNELS, Herrick, Ill. 14-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Alfalfa Hay—For sale. Choice pea green second and third cutting. Weights and grades guaranteed. Write for delivered prices. ALBERT MILLER & CO., 192, No. Clark St., Chicago, Illinois. 12-*

Baled Hay and straw for sale. Let us quote you. Prompt service. FRED SEEHAFER & SON, Marshfield, Wis. 13-5

Hay For Sale—Timothy or clover mixed. Will buy fine marsh hay and straw. GEO. L. FREDERICK, Beaver Dam, Wisconsin. 15-2

Baled Hay—We are now baling our surplus alfalfa. If you would like a carload place your order now. Market prices. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 16-4

Wanted—Twenty tons of alfalfa hay. F. O. B. GRANT HILLS DAIRY FARM, Chattanooga, Tenn.

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

TOBACCO

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50; smoking, 5 lbs., $1.25; ten, $2.00. Pay when received; pipe and recipe free. FARMERS UNION, Paducah, Ky. 13-4

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; smoking, five pounds, $1.25; ten, $2.00; pipe free. Pay when received. Tobacco guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 14-4

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Kentucky. 16-4

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—1,000 lb. De Laval Clarifier with motor also crank drive. Nearly new. Bargain. BROOKSIDE FARM, Sheffield, Ia.

For Sale—Double unit Perfection milker, piping for sixteen cows. 1 H. P. motor, Line shaft, pulleys and belting. This equipment used less than ninety days. Priced at half value. J. P. McWILLIAMS, Bucklin, Missouri.

For Sale—Used Hinman milker; also extra units; Address BOX 331, care Hoard's Dairyman.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy Book 5000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

STOCK WANTED

Guernseys: Ten fresh or springers, with cow testing records, must be guaranteed free tuberculosis and abortion and priced right for cash. J. HOWARD CLIFFE, Ivyland, Pennsylvania. 12-*

Wanted—Guernsey cows on shares or time payments. Can handle 12 or 15 head. Address BOX 324, Care Hoard's Dairyman. 15-2

Wanted—20 Registered Holstein bulls, well grown, light colors; 25 grade cows and heifers due Dec. Address BOX 328, Care Hoard's Dairyman.

Wanted—Carload grade Holstein yearling heifers. Open. BROOKSIDE DAIRY, Redfield, South Dakota, L. Howard, Mgr.

Wanted—Holstein yearling bull for $100. W. S. FLOYD, Mulberry Grove, Ill.

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

FARMS FOR SALE

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

240 Acre stock and grain farm. Good soil,, well improved, located in Central Minnesota. Only $60.00 per acre. $1,000 cash. Balance on time at three per cent. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, Saint Paul, Minnesota. 13-4

For Sale or rent to responsible dairy or stock man. Edgewood Farm, 640 acres finest Red River Valley land, 400 acres under cultivation, 80 acres alfalfa, balance bluegrass pasture and timber. Buildings exceptionally fine, modern all respects, electric light and power. Unusually large barns, silos, hog and poultry barns, seperate houses for help. On Red River 2 miles from Fargo, largest city in North Dakota. One mile from State Fair grounds. Completely equipped with stock and machinery except cattle. References required. FARGO LOAN AGENCY, Box 884, Fargo, North Dakota. 14-Spl

Oregon. Where dairy farming pays. Butterfat produced cheaper. Short feeding season. Green feed nearly all winter. Excells all other states in world record cows, gold medal bulls and medal-of-merit cows. Oregon holds six of the eight Jersey world records for butterfat production. Banking and business interests united with farmers to provide markets and make agriculture a success. For FREE official bulletins and literature giving complete facts, write Land Settlement Dept., Room 621 PORTLAND CHAMBER OF COMMERCE, Portland, Oregon.

For Sale—Farm of 214 acres near Ithaca, N. Y. to settle an estate. Two houses, three barns with basement, two miles from milk station, one mile from village. Price $12,000.00. No trading. Address BOX 329, Care Hoard's Dairyman.

Farm Home—240 acres, excellent alfalfa ground, ideal for dairy or sheep; silo, two sets bldgs., new, modern; lights, bath, etc. Will divide farm. Near city, improved road, splendid neighborhood. Bargain price, terms. G. H. STOKES, Troy, Ohio.

$6.000 Bldgs., On $3,300 farm 362 acres, crops and equipment included if settled at once; 1½ miles busy village, convenient markets; 150 acres mostly level tillage, big wire fenced pasture, abundantly watered; estimated 3,000 cds. wood, 200,000 ft. timber worth small fortune, fruit; 1923 income over $3,400; fine 8 room house, sun parlor, good barns, other bldgs. The bargain of the year at $3,000, only part cash. Details pg. 61 New Illus. Catalog, 152 pages money making farm bargains. Free. STROUT FARM AENCY, 150DL Nassau St., New York City.

For Sale—Write Lelia N. High, Nampa, Idaho, regarding her fine dairy and ranch.

Idaho Dairy and Stock Ranch—1060 acres, free irrigation, one of the best ranches we have ever had listed, five hundred acres of blue grass pasture, well improved, perfectly located for dairying and thorough bred stock raising—$75,000.00. Any payment down, balance thirty years, 6%. We have hundreds of other farms and ranches in the Northwest from $5,000 up. BOLITHO COMMISSION CO., Boise, Idaho.

FOR RENT

Wanted—A good, reliable married man to take charge of modern dairy farm on share basis. The farm consists of 200 acres under cultivation and is located right on the edge of town and only five minutes walk from high school. There are fifty head of pure bred Holsteins, about twenty-five will be milking this winter. Address BOX 332, care Hoard's Dairyman. 16-2

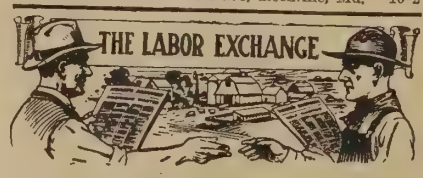
Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

Fort Rent—Dairy farm, 432 acres. Located at city limits, Beloit, Wisconsin. DON VAN WART, Agent, Beloit, Wis. 15-3

PARTNER WANTED

Want experienced and successful dairyman farmer as sharing partner in large dairy ranch, registered Ayrshires, first class buildings, running water, alfalfa, located on good highway near two railways. Partner should be able to invest to the value of half the equipment, but this is not absolutely necessary if right man is found. References required. R. D. GEORGE, Boulder, Colorado. 15-3

Wanted—Experienced dairyman, 40 cows, one helper or partnership 50-50. BOX 178, Rockville, Md. 16-2



Advertising in this department is 7c per word. Remit in advance.

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month; free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Position Wanted—Single man with 9 years experience as Danish buttermaker. Received training in the old country and is fully experienced. Can furnish the best of references upon request. Anxious to start work at once. Address HENRY SCHMIDT, Care Christ Schmidt, 925-13th, Belle Plain, Iowa. 15-2

Wanted—By two young clean American men, positions running a small or private creamery and peddling milk. One is well experienced in handling certified milk. Wages $75.00 and $60.00 a month with board and room. CHESTER WHITNEY, Box 101, Bainbridge, New York.

Experienced, successful creamery buttermaker wants position in good sized town. B. E. BRAGG, Sutherland, Iowa.

Position Wanted—As foreman or manager on large dairy farm. Eight years on last place. Understand all modern machinery. C. L. COBURN, 1123 Fifth Street, Beloit, Wisconsin.

Experienced, married man, 29, wishes position on farm at once. Can manage if desired. State wages. ROLLAND GEARING, Walworth, Wis.

Farm manager wants position on large stock and grain farm. Life time experience. Can furnish best reference. Address BOX 330, care Hoard's Dairyman.

Wanted—Position on farm where all time and attention of experienced man will be appreciated. Know farming in all its branches. Handle labor, machinery. Keep all records and books satisfactorily. Married. Would consider 50-50 proposition. High class references. Address BOX 334, care Hoard's Dairyman.

Wanted—Position feeding and milking test cows or as herdsman. Holsteins preferred. Married, 43. Twenty years experience. Understand breeding, feeding, general farming. Have developed several 1,000 pound cows. Available December first. State wages. L. G. GLEIM, Arlington, Iowa. 16-2

Position wanted at once by young married man in farm part of stockfarm. Must be modern. Competent to keep up machinery, tractors, trucks, etc. References present employer. State facts. Mean business. EDWARD HOLMES. Tecumseh Farms, Route 3, Antioch, Illinois.

HELP WANTED

Wanted—Single man to assist with milking Holstein cows on semi-official test. Give age and experience in first letter. U. S. EXPERIMENT FARM, Huntley, Montana. 15-2

Wanted—Single man, must be good milker. Holsteins and Jerseys. $50.00 per month. $5.00 bonus at end of year. Write to E. EISENHUT, R. R. 5, Carrollton, Ohio.

Wanted—Boy sixteen years or older in small dairy. De Laval milker. Must give best reference. State experience and wages first letter. Protestant home. JOHN W. OLIVER, Dearborn, Mo.

Civil Service Positions—Mail service employees needed. For instructions write FRANK PERGANDE, 35-9137 Bartlett, Milwaukee, Wisconsin. 16-*

Wanted—Single man to work on dairy farm who will work as helper in cheese factory next summer. PETER A. SCHMITZ, Lone Rock, Wis.

Wanted—Clean honest single young man for retail delivery. Dodge truck. Must bottle own milk. Able to stand cold weather. Wages $65.00 to start. State age and experience. GLASER MODEL DAIRY, Halleck, Nevada.

Wanted—At once, middle aged couple, no children, on small dairy and poultry farm adjoining city of forty thousand. Wife to take care of modern house. Two in family. Apply stating salary and references to JOHN W. HARKER, Farmers Savings Bank, Muncie, Indiana.

Wanted—Experienced reliable man, to operate dairy farm. State places employed and references. GRANT HILLS DAIRY FARM, Chattanooga, Tennessee.

Machinery For Sale

1 No. 17 De Laval cream separator; 1 Bisco cooler; 1 4 H. P. plain vertical boiler; 1 Ft. Atkinson bottle washer and sterilizer; 1 large ice chest, cooling compartment 4x2½x2½; 1 Kelvinator ice machine fitted to ice chest above described; 12 drinking cups; 2 doz. stanchions; 1 G-8 bottle tester for 6 inch glassware; 1 No. 6602 Troemner Seals with equipment; 2 each 8 and 10 gal. milk cans. All used two or three years in good order.

A. G. SEIBERLING, **Kokomo, Ind.**

Keeping up Fertility on Dairy Farms

(Continued from first page)

the end of the ten years, and in 1923 yielded only a few bushels of nubbins (corn). It would be difficult to find, anywhere, stronger argument in favor of lime and legumes as partners in soil improvement.

But manure and green manures will not always do all that is required towards keeping up the fertility. It is frequently profitable to reinforce these with commercial fertilizers. This is especially true in the case of truck crops and potatoes. Even in the case of hay and grain crops, one or two hundred pounds of a readily available nitrogenous fertilizer like nitrate of soda or sulphate of ammonia, or a few hundred pounds of a high grade complete fertilizer, will pay for itself several times over in increased yields.

Dairying tends toward intensive rather than extensive farming, and it is this as much as anything else that the American farmer must learn, if he would put a stop to declining yields.

Another Holstein Produces 1,000 lbs. Fat

Still another Holstein cow enters the ranks of 1000-lb. butterfat producers. The last one to qualify for this select circle is Yesletine Johanna Wit, bred and owned by A. F. Wendlandt & Son of Minnesota. As a 6-year-old cow she produced 31,936.3 lbs. milk containing 1,046.45 lbs. fat (1,308.06 lbs. butter) in 365 days.

"No other human occupation opens so wide a field for the profitable and agreeable combination of labor with cultivated thoughts, as agriculture. Every blade of grass is a study; and not grass alone, but soils, seeds, and seasons—hedges, ditches, and fences, draining, drouths, and irrigation—plowing, hoeing, and harrowing—reaping mowing and threshing—saving crops, pests of crops, diseases of crops, and wheat will prevent or cure them—implements, utensils, and machines, their relative merits, and to improve them—hogs, horses, and cattle—sheep, goats, and poultry—trees, shrubs, fruits, plants, and flowers—the thousand things of which these are specimens—each a world of study within itself."—ABRAHAM LINCOLN.

Ryanwood HOLSTEIN Dispersion!

NOVEMBER 5th --- DE PERE, WISCONSIN

(At My Farm, 3 miles south of the city)

35 REGISTERED HOLSTEINS 35

An Absolutely Clean Herd



SIR CALAMO WAYNE

SIR CALAMO WAYNE, a show son of Paul Calamo Korndyke, our senior sire, will be sold. His daughters are the dams of those good ones the Jefferson County Asylum has been showing.

We will also sell 6 of his daughters and 5 sons, all good ones. The entire herd is in calf to him. Sir Calamo Wayne is guaranteed right in every way.

The herd contains A. R. O. cows with records up to 24 lbs. in 7 days and 800 lbs. in a year. It has been tested since 1908 and we have never had a reactor.

Be there if you need a herd sire or some clean, straight, productive females.

R. E. HAEGER, AUCTIONEER

ROBERT A. RYAN, Owner **DE PERE, WISCONSIN**

Ormsbys COMPLETE *Ormsbys*

DISPERSAL

ORIOLEVALE HERD of Pure Bred Holstein Cattle

Wed., Nov. 12 At my Farm 5 mi. north of Neillsville, Wis.

Two clean Federal T. B. tests. Will be sold subject to 60-day re-test.

HERD CONSISTS OF 24 FEMALES. Seven daughters of Duke Pietertje Korndyke Ormsby 8th No. 206218 and 13 daughters of King Pietertje Ormsby Piebe 10th No. 276701. Look up breeding of these two herd sires and attend this sale.

W. H. KRAUSE, Auctioneer **WAYNE F. POTTER, Proprietor**

Fuhrmann Canning Co. Holstein Dispersal

De Forest, Wis., Wednesday, Nov. 5th

32 HEAD -- Herd Sire, 23 Cows, 8 Yearlings

Most of cows in calf to herd sire, Swandale Pontiac Salo De Kol, who is to be sold. His sire is a son of King Pontiac Champion and of the 39-lb. State Record Cow.

Cows of Good Breeding. Several Ormsbys; a daughter of Avon Pontiac Ormsby, a 21-lb. grandson of May Echo Sylvia, a daughter of King of Scott Valley, a 34.43-lb. grandson of Colantha Johanna Champion, two granddaughters of King Segis Pontiac, granddaughter of King of the Pontiacs; a very fine daughter of Crescent Beauty Segis Pontiac.

T. B. tested. Sold under a 60-day guarantee. 6 mos. time given on bankable notes at 6%

Sale at 1 P. M. at Fuhrmann Canning Co. Farm, one-half mile from De Forest

AUCTIONEER—J. E. MACK

For Catalog write: **F. H. EVERSON, Sale Manager** **LAKE MILLS, WISCONSIN**

GOODHUE COUNTY BREEDERS'

HOLSTEIN SALE!

ZUMBROTA, MINN.

SATURDAY NOV. 15th

Federal Supervised herds. Retest Privilege.

60 PURE BRED HOLSTEINS

In selecting the animals for this sale the committee adopted the slogan, "PICK ONLY THE KIND THE BUYERS ARE LOOKING FOR", and as a result the offering in this sale is one of exceptional quality.

There will be a large proportion of fresh cows and springers and bred heifers. When it comes to heifer calves you will travel a long way before finding an equal lot.

—Descriptive Folder Sent on Request —

TWIN CITY PEDIGREE & SERVICE CO., Sale Mgrs., 211 Market Bank Bldg., Minneapolis, Minn.

A 31-lb. Show Bull — *Ready for Service*

Born Oct. 17, 1923. Well grown.



Onal Sir Johanna Ormsby

HIS SIRE: 1st prize N. W. Dairy Exposition, 1923, with dam's record of 688 lbs. in 305 days as Jr. 2.

HIS DAM: A formerly state record heifer with 31 lbs. in 7 days as a 3-yr.-old.

BREEDING: The Ormsby Colantha Combination.

Ask for picture, price and particulars.

ONAL HOLSTEIN STOCK FARM, Alexandria, Minn.

Lake Mills, Wis., Thursday, Nov. 20

ANNUAL FALL SALE

Choice Holstein Cattle

Selected From Good Breeding Establishments.
All Tuberculin Tested. Many Accredited Herds.

——Write for Catalog——

F. H. EVERSON, Mgr. **Lake Mills, Wis.**

SPINNEY-RUN FARMS

Five Ayrshire Bull Calves

$50 to $200.00.

Federal Accredited Herd

A. L. FARWELL, 102 So. Market St., Chicago, Illinois

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

WALLIS FARMS— AYRSHIRES

Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance.

Federal Accredited Herd.

H. M. WALLIS, *Owner* Racine, Wis.

FOR SALE!

Pure Bred Ayrshire Heifers

backed by A. R. breeding. One yearling, one two-year-old bred. Also yearling bull ready for service.

ANIMAL HUSBANDRY DEPARTMENT

University of Wisconsin **MADISON, WIS.**

Production and Individuality

must be combined in the breeding of your next sire. Our success in the showrings of the U. S. and the production of our herd insures you getting individuals from us that will make money for you. We are now offering six young bulls eight to fourteen months of age sired by **HOWIE'S KING OF HEARTS** or **CAVALIER'S LORD ROSEBERRY.** 6 bred heifers and 10 young cows. Write for prices and information.

ADAM SEITZ & SONS WAUKESHA, WIS.

Ayrcroft Farm Ayrshires

have again proven themselves winners in the show ring as well as producers. Write for what you want. Herd Federal Accredited.

B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,

Route 4, Ypsilanti, Mich.

JERSEYS

Registered Heifers-Good Bulls

Priced For Quick Sale

OAK GROVE JERSEY FARM has high class pure-bred young stock, priced for quick sale on account of being crowded for room. 3 yearling heifers, 3 heifer calves and 5 bulls around a year old. All sired by "Majesty's Ixia's Gamboge" whose dam has a record of 640 lbs. butter. U. S. Accredited herd.

W. M. KNIGHT, Eagle, Waukesha Co., Wis.

World's Championship Blood FOR SALE



Raleigh's Torono Rex 223582

The three-quarters brother to Raleigh's Torono's Meme, World's Champion Jr. 2-yr.-old Jersey, sired by Raleigh's Torono, a Silver Medal bull with over 30 in the R. O. M. If you are not in the 50-lb. list, you need him. Write us for pedigree and full particulars. Herd Federal Accredited.

SHERMAN JERSEY FARM
CHARLES CITY, IOWA

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; **ALSO REGISTERED JERSEY BULL CALF.**

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.

Federal Accredited Herd No. 72406

W. R. KENAN, JR., Owner. T. E. GROW, Supt.

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write

ROLLA OLIVER, Route No. 5, Independence, Mo.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

R. of M. JERSEYS

We are offering several fine male calves, sired by the Silver Medal bull, Sophie's Emblem, and Sophie's St. Mawes Victor. Some are ready for service. If you are looking for typy producers, write for particulars.

K. T. WIEGAND Cleveland, Wis.

---

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.

J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.

H. S. HAGER, PRAIRIE DU SAC, WIS.

Valley Farm

is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write

FRED STUBLEY, Black Earth, Wis.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Sophie Tormentor Jerseys At Auction

TWO YOUNG BULLS AT YOUR PRICE!

The Sophie Tormentor family of Jerseys are leaders in production. Sophie 19th the champion long distance cow of the world, all breeds. Her son, Pogis 99th, the world's champion production sire, all breeds.

CALF No. 1 is 14 mos. old. He traces four times to Sophie 19th. His dam has a record of 412 lbs. fat, two milkings per day.

CALF NO. 2 is 6 mos. old. Sired by one of Pogis 99th's best sons. The calf's dam has a record of 504 lbs. fat.

Each calf will be shipped, express paid, to the party whose mail bid shows the highest net price for the calf he bids on. Terms, ⅓ cash, ⅓ in six months, ⅓ in one year. Full particulars with pedigrees of calves upon request; act quickly.

Address: **THE SOPHIE TORMENTOR CLUB, SALEM, OHIO**

The Sophie Tormentor Club is an International organization with members in 29 states and Canada.

A High Point at the National Dairy Exposition

(Continued from page 472)

382 pounds of fat. The world's record Guernsey was present with a year's record of 17,555 pounds milk and 887 pounds fat.

The best grade Jersey cow produced in one year 7,116 pounds milk and 480 pounds fat. The seven grade Jerseys exhibited averaged 7,564 pounds milk and 424 pounds fat in one year.

The Connecting Link

Some might think this grade cow exhibit would detract from the exhibit of pure-breds at the Dairy Show, but only the short-sighted could entertain such an idea, for is not such an exhibit of fine and profitable grade cows the best proof of the high intrinsic value of *good* pure-breds? How could the value of good pure-bred cattle to the dairy industry of the country as a whole be shown in a more striking manner than by this exhibition, and especially by the nine grade Holsteins with such high production all from one pure-bred sire? It was only by grading up with pure-bred sires for four generations that this magnificent production was finally possible. Many good pure-bred sires are going begging when one of the greatest needs of the whole dairy industry is for their use in grading up and improving the offspring of 95 per cent of the 23,000,000 cows in the country.

These were the cows of real farmers, and they had made their records on common farms and under farm conditions where they were kept solely for the sale of milk. They demonstrated in a large way the practical value of grading up, the selection that can be obtained only by knowing the yearly records, and the result of improved feeding and care arranged by tester and dairyman.

This exhibit as it is developed from year to year should attract many thousands of the milk producers of the country who thus far have not attended the Dairy Show in anything like the numbers which they should. It is the connecting link between the pure-bred business and commercial dairying and carries the final and measured proof of practical improvement within the reach of all dairymen.

BROWN SWISS



SWISS VALLEY GIRL 7TH NO. 4678

Breed Brown Swiss Cattle

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N
IRA INMAN, Secretary, Beloit, Wis.
A. E. BOWER, Pres., Union Stock Yds., Cleveland, Ohio

LEES' HILL

Accredited Brown Swiss Herd

"FORMERLY KINNELON HERD"

Offers a splendidly bred bull calf by a grand Champion National Dairy show winner and out of a first prize National Dairy show cow with a large A. R. record. Let us send you full particulars.

LEES' HILL FARM, Morristown, N. J.
W. S. DUNN, Sales Manager

GUERNSEYS

SARNIA FARM
Cherub Guernseys

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

CHAS. L. HILL & SON
Rosendale Wisconsin

BULLS 6 to 10 Mos. Old
From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

— Registered — Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address

O. G. CLARK & CO., WEST SALEM, WIS.

A Cheap Bull

May ruin your herd, yet it may be unwise for you to invest too much in your next herd sire. We have two very fine young calves right now that will be one year old early next spring. They are individuals you will be proud to own and they come from real cows. If you are looking for a bull calf, priced right, buy one of these calves.

HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN

Thorn Hill Farm Guernseys



Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

GOODHAND KINGSTON & SON'S Guernseys Offered at Private Treaty

Because we have recently sold our farm and are breaking up partnership, we are forced to sell our entire herd. It includes 15 cows—most of them with A. R. records. Ten of their daughters by Imp. Itchen May King and 5 sons from a few weeks to 12 months old.

A 60-day retest on all animals and every one guaranteed a breeder.

This herd has been shown at state fairs and national dairy shows with credit for eight years.

Write or wire and we will meet interested visitors at Milwaukee or Waukesha.

GOODHAND KINGSTON & SON WAUKESHA, WISCONSIN

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS
Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

EL JANE GUERNSEYS
ARCADIA, MISSOURI
(85 miles south of St. Louis)

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.

Federal Accredited EL JANE FARMS, - Arcadia, Missouri

2 SONS OF LADYSMITH CHERUB

The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

GUERNSEYS

are long lived. We can show you a Guernsey cow that is 19 years old, has 18 registered calves,—and is still delivering the goods.

Ask for "The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
Box H. D. 124, PETERBORO, N. H.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.

RICHARD F. KLEMM, Baraboo, Wisconsin.

WOODEND FARM GUERNSEYS

BREEDING STOCK FOR SALE, May Rose blood. A few females with records over 600 lbs. fat. 6 bulls, 2 of serviceable age. All out of A. R. dams. Animals T. B. tested and guaranteed breeders. Prices right.

R A. LAMBERT, MGR., MOUND, MINN.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

We Offer For Sale Young Bulls, Cows and Heifers

I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.

W. R. DUNLOP, ELBRIDGE, NEW YORK

HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO

For prices and information, write

E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

PUBLIC SALE
High Class Guernseys

From the Herds of—

WM. MARSH
Waterloo, Iowa

MYRON A. WICK
Chagrin Falls, Ohio

F. J. RUEPING
Fond du Lac, Wis.

D. D. TENNEY
Minneapolis, Minn.

Trenton, N. J. *Inter-state Fair Grounds* Nov. 14, 1924

Included in the sale are animals that have won 6 championships, 11 firsts, 9 seconds, 6 thirds and 4 fourths at National Dairy Show



LANGWATER LEVITY 70293
662.15 lbs. fat, Class EE
Senior and Grand Champion National Dairy Show, 1923

Show Yard Winners



HONEY BLOOM OF THE PRAIRIE 89451
1st prize National Dairy Show, 1919-1920-1924
Junior Champion National Dairy Show, 1919-1920



SHUTTLEWICK LEVITY 101850
2nd prize National Dairy Show, 1923
804.44 lbs. fat, Class G
Under retest expected to make 950 lbs. fat in Class C

Large A. R. Records



DIAMOND OF MAPLE HILL 85063
2nd prize National Dairy Show, 1923
732.43 lbs. fat, Class C



ITCHEN KING 49803
Greatest proven sire of the breed. First six daughters to be tested promise to average 680 lbs. fat at 2 yrs., 4 mos.

Choicest of Breeding



PEACH BLOSSOM OF THE PRAIRIE 126063
624 lbs., Class G. 3rd prize National Dairy Show, 1924
Dam's record 998.4 lbs. fat

The best lot of cattle ever offered in any sale! All of Mr. Marsh's 1924 show herd. Langwater Levity and her four daughters. Both junior champions at 1924 National.

For Catalogs, sent only on request, address . . **CHARLES L. HILL, Sale Manager, Rosendale, Wisconsin**

Waukesha Co. Holstein Breeders'

Annual Quality Sale!

Monday, Nov. 17
60 Serviceable Bulls
with records up to 30 or 1000 lbs.

Tuesday, Nov. 18
80 Selected Pure Bred Females
with a few choice Bulls

Includes the complete dispersion of the entire herd of Paul Reed, Cconomowoc. Every cow in the herd has an official record. There are eighteen of them due to freshen this fall; the balance of the herd are yearlings and two-year-olds with type and breeding. Watch for next week's issue.

Among the bulls to be sold are:

(1) PROSPECT McKINLEY, born Dec. 21, 1923. Sire—Carnation Segis Prospect. Dam—Carnation Matador Tentie; butter 7 days, 29.83.

(2) A 15-MONTH-OLD BULL. Sire—King Canary Oak De Kol. Dam—Pabst Arrowhead 2d; butter 365 days, 3 years, 1003.50; milk, 19,525; butter, 7 days, 32.99.

(3) A YEARLING SON OF 41ST out of Mechthilde Rose Pontiac with 959 lbs. butter, 365 days. Others equally as good.

Write for information

Waukesha County Holstein Breeders' Ass'n

WAUKESHA, - WISCONSIN

POSTDALE FARMS

COMPLETE DISPERSAL

Friday, Nov. 14 *At the Farm* **Durand, Mich.**

THE WORLD'S CHAMPION junior four-year-old milk producer for all periods from one to 100 days, to be sold with 27 of her sisters, her yearling daughter and other near relatives.

THE WORLD'S RECORD BULL, with an average of 1329.74 lbs. butter and 31,512.3 lbs. milk for the year records of his two nearest dams, to be sold with fourteen cows and heifers bred to him.

55 - Pure Bred Holsteins - 55

Tuberculin Tested -- Guaranteed. Never a Reactor in the herd.

For catalog, write

JOHN E. POST, Owner, R. F. D. No. 2, Durand, Michigan.

Cowdenside Herd Sale!

60 -- REGISTERED HOLSTEINS -- 60

Representing breed's best blood lines and 20 years' breeding.

Federal Accredited Herd — Never had a reactor

30 granddaughters of King Korndyke Sadie Vale are not offered every day—all bred to Colony Posch Newman, whose dam and sire's dam were both world's record cows that average 852 lbs. milk and 33.53 lbs. butter in 7 days and 3,471 lbs. milk with 133,84 lbs. butter in a year. 10 daughters of Colony Posch Newman and 10 great granddaughters of Sarcastic Lad in the sale. A chance to buy a bunch of top class sisters for foundation purposes.

Thursday, Nov. 20, Cowden, Ill.

COL. D. L. PERRY, AUCTIONEER

For Catalogue address: R. N. THOMPSON Cowden, Illinois

(Mr. Thompson was former secretary-treasurer of the Illinois Holstein-Friesian Ass'n.)

Mention Hoard's Dairyman

Forced to Sell At Once Our Entire Herd of 90 Registered Holsteins

The majority are of milking age with A. R. O. records up to 30 lbs. A number of large cows and heifers to freshen soon. Mostly sired by such sires as Johanna King Segis, Pabst Creator Ormsby and King Bess Burke Ormsby. Come at once and select one or as many as you wish.

TWIN PINE STOCK FARM, OXFORD, WISCONSIN.

WATERTOWN, WIS.

Sale of Registered

HOLSTEINS

Wednesday, Nov. 19

85 HEAD of selected fresh and springing COWS. Some bred heifers and 15 splendid yearling BULLS. Our females come from the very best herds in this renowned Holstein community. Our bulls are an outstanding lot. Ormsby and Homestead breeding. Consigned by establishments such as E. N. Murphy Farms, Carnation, Pabst Stock Farms, and James McKone, Green Bay. Don't miss this sale for bulls and choice females. All cattle T. B. tested and sold on a re-test.

— Write for Catalogs to —

F. DARCEY, Sec., Watertown. Wisconsin

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.

If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Dousman, Wis.
A clean herd under state and federal supervision

Green Co. Holstein Breeders' Ass'n SEMI-ANNUAL FALL SALE

NOV. 6-7, 1924, MONROE, WISCONSIN

IN THE NEW STOCK PAVILION AT FAIR GROUND

18 HEAD of the Highest Quality BULLS That we have ever offered for sale. All serviceable age. 10 with A. R. O. records up to 30 lbs. 2 30-lb. bulls. 1 26-lb. bull, 958 lbs. of butter at 12 yrs. old. 1 26-lb. bull, record made as a 2-yr.-old. 1 23-lb. bull, record made as a 3-yr.-old. 1 21-lb. bull, record made as a 2-yr.-old. 4 more with good records.

80 FEMALES All springers or with calves at side. Half of which are 2- and 3-yr.-old heifers.

EVERSON IN THE BOX AUCTIONEERS: EELLS, HOGAN, GIBBONS

FOR CATALOGS WRITE

JOHN W. KEATING, Secretary MONROE, WISCONSIN

BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

For Sale

Sire's dam holds Wisconsin's 305-day record for milk and butter. His own dam made highest cow testing record in Illinois for one year with 94.3 lbs. milk best day. Homestead breeding. LARGE, GOOD, INDIVIDUAL BULL CALF born June 10, 1924. Price $250. Herd fully accredited.

TRI-STATE RIVER VIEW STOCK FARMS, Warsaw, Illinois.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,

D. G. Twentyman, Manager Rochester, Minnesota

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:

AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

High Testing Show Bulls

=ALL AGES=

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD Norwalk, Iowa

FOR $100—Grandson of Sir P. O. M. 37th

Dam's cow testing association record 351 lbs. fat as a junior two year old in 10 mo. Grandam official record 700 lbs. butter 305 days at 10 years. Born March 6, 1924.

B. A. NORRIS, ANOKA, MINN.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.



A Top Notch Bull for a High Grade Herd—Only $150

COLONEL AAGGIE SEGIS WALKER, BORN OCT. 31,1923

His dam is a 17-lb. junior two-year-old daughter of SIR WALKER SEGIS HOMESTEAD, a proven show sire with over 30 A. R. O. daughters, while the sire of this calf is a strongly "COUNT"-"PIEBE" bred bull whose five nearest dams average over 1,090 lbs. butter in a year.

This calf is a broad butted, deep middled, straight top-lined, all around good individual, one you will like. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minn.

A YEARLY RECORD BULL—Ready for Heavy Service

SIR WALKER SEGIS LYONS was born Feb. 19, '22. He is well grown and a good individual. His dam produced 20718 lbs. milk, 823.86 lbs. butter in a year as a 2-year-old. His sire by Piebe Laura Ollie Homestead King is from a 1230-lb. dam with 30814 lbs. milk. Write today for further details if you want a sire with the best of breeding and production. You'll find the price very reasonable.

CARLETON COLLEGE FARMS, Northfield, Minn.

FEDERAL ACCREDITED HERD



Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.

For Sale or Exchange

LORD FAYNE VALDESSA NO. 187263, proven sire. Dam's record seven days 30.61 lbs. Milk 630 lbs. Thirty-day record 125.49 lbs., milk 2,589 lbs. Write

SLIVKA BROS., Plainview, Illinois.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Ormsby-Homestead

HEIFERS and BULLS

FOR SALE

Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

A Clean Herd
Under Federal Supervision

MILFORD MEADOWS STOCK FARM
J. C. CORT, Mgr., LAKE MILLS, WIS.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Ollie-Ormsby

Bull born Nov. 19, 1923. Ready for service. Sire—Sir Ollie Mooie Watson, 36-lb. son of Iowana Sir Ollie. Dam—24-lb. granddaughter of Pietertje Maid Ormsby now on year test. Bull is two-thirds dark, a good individual and reasonably priced. Write or visit us.

WALCOWIS FARMS Lake Geneva, Wis.

— PUREBRED —

HOLSTEIN HEIFERS

25 HEAD pure-bred heifers, 2 and 3 years old, bred to a 29-lb. bull. Due in November. Priced right for immediate sale.

RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y., Randolph, Wis.

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

HERD SIRE FOR SALE

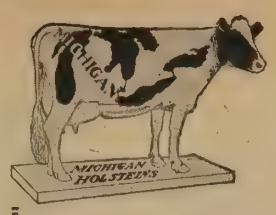
Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.



Buy Michigan Holsteins



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several carloads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.

L. C. KETZLER, R. 8 Flint, Mich.

---

2 SERVICEABLE BULLS

One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $200 takes either bull. Herd under Federal supervision.

J. E. BURROWS Flint, Mich.

D. D. AITKEN, Flint, Mich.

Breeder of Holstein-Friesian Cattle

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

Sir Charlevoix Ormsby Finderne 377019

Whose dam holds Michigan state record with 1278.56 lbs. butter and is second highest cow in world for milk with 35,339.50 lbs. in 365 days. *Sons of his for sale from good 7-day and yearly record dams.*

J. B. JONES FARM, Romeo, Michigan

Livingston County Sales

C. T. A. SALE—80 HEAD above 300 lbs. fat. One of our leading herds will be dispersed—30 lb. cows, heifers, a 36 lb. bull, 2 consignment sales with high record cows. Our County is free from T. B. It has the world's greatest bull Ass'n. As many Holsteins as any county of its size in U. S. Come to Livingston County for Holsteins.

LIVINGSTON CO. HOLSTIEN-FRIESIAN ASS'N.
BURR J. HOOVER, Sec., HOWELL, MICH.

Why Take Chances When We Sell Only Proven Producers?

WE OFFER: Copland S S Echo born Feb. 24, 1922. Btr 7d 1 yr. 7 mo. 20.99 milk 410.1. Btr 1st 7 mo. (herd record) 418.31 milk 10,325.8. Net profit $94.95.

Due Feb. 22, 1925 by Sir Dutchland Colantha Denver, dams record 36.25, 1315.15.

PRICE $250.00 F. O. B. Send for picture and pedigree. Herd under Federal supervision.

SERRADELLA FARM, Oscoda, Mich.

A 30-lb. Bull

At a Bargain Price

King Pontiac Segis Lad De Kol 3d is 2 years old and the sire of some very promising calves. He was second among 25 calves at the 1922 Michigan State Fair and this year he was a prize winner as a 2-yr.-old. His dam made 30 lbs. butter from 700 lbs. milk in 7 days and his sire is a son of Sadie Gerben Hengerveld De Kol, 40 lbs. butter, 782 lbs. milk in 7 days, 157 lbs. butter, 3465 lbs. milk in 30 days. Sold subject to 60-day retest guarantee. Write today.

BAYNEWOOD FARMS, Romeo, Michigan

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We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

College Butter Boy 293508

In Service in the Pontiac State Hospital Herd

HIS SIRE, Pauline Sir Pontiac, has 16 A. R. O. daughters including a 36.5-lb. Jr. 4-yr.-old.
HIS DAM, College Belle Butter Lass, produced 32.69 lbs. butter and 716.0 lbs. milk in 7 days and 1112.69 lbs. butter and 25,079.2 lbs. milk in 365 days on strictly official test. His first two Jr. 2-yr.-old daughters averaged 21.20 lbs. butter and 481.5 lbs. milk in 7 days.

DO YOU WANT A PONTIAC IN YOUR HERD?

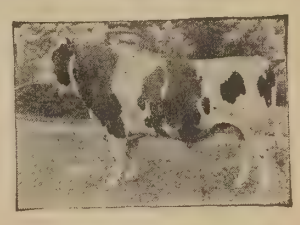
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Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

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Senior Sire at the head of our herd of 200 Registered Holsteins

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Milk, 33,464.70 lbs.

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HERD "FEDERAL ACCREDITED"
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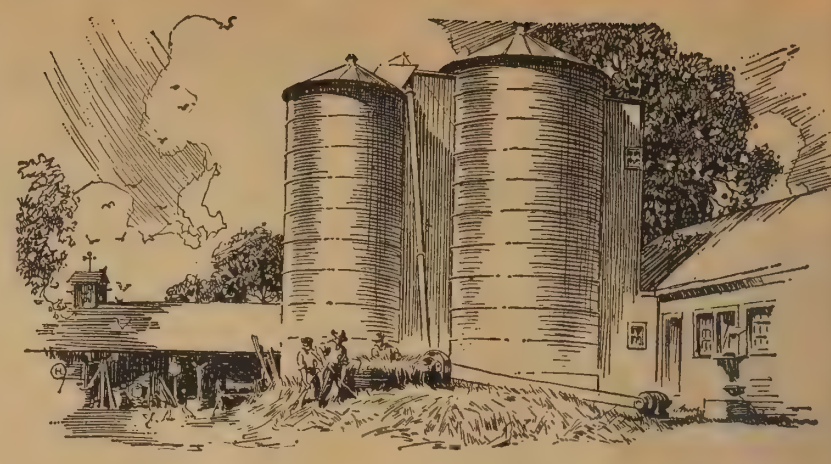
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IT doesn't pay a farmer to carry a single bushel of wheat to the railroad station. He is a bulk producer. He must sell in bulk.

So it is with electricity.

A National Committee of economists and electrical and agricultural engineers has organized state groups of farmers to whom electricity is being supplied. These groups will receive electrical facts from engineers and will in turn give the engineers farming facts. The state agricultural colleges guide these groups—show them how to apply electricity and how to keep records of power consumed, time and labor,—records which can be compared with those obtained under non-electrical conditions.

Farmers do not profess to be electrical engineers, and electrical engineers do not profess to be farmers. But by putting their heads together they are adapting electricity to farming. Ways of utilizing electricity could be discovered that would be profitable.

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As a result both the 500,000 farmers who have electric service and those who have never had it will profit. For electricity will be applied in ways never dreamed of before. Crops will be produced and handled with less labor and at lower cost. The standard of living on the farm will be raised.

All the conditions to be faced are not known. And as soon as they are known—and that will be very soon—there will be fewer farms on which men and animals do all the work.

The Committee in charge of the work is composed of economists and engineers representing the American Farm Bureau Federation, the Departments of Agriculture, the Interior and Commerce, the Power Farming Association of America, the American Society of Agricultural Engineers, and the National Electric Light Association.

A booklet has been published by the Committee. It will be sent on request free of charge. Read it and pass it on to your neighbor. Write for it either to Dr. E. A. White, American Farm Bureau Federation, 58 East Washington Street, Chicago, Ill., or to the National Electric Light Association, at 29 West 39th Street, New York City.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 17 Fort Atkinson, Wisconsin November 7, 1924



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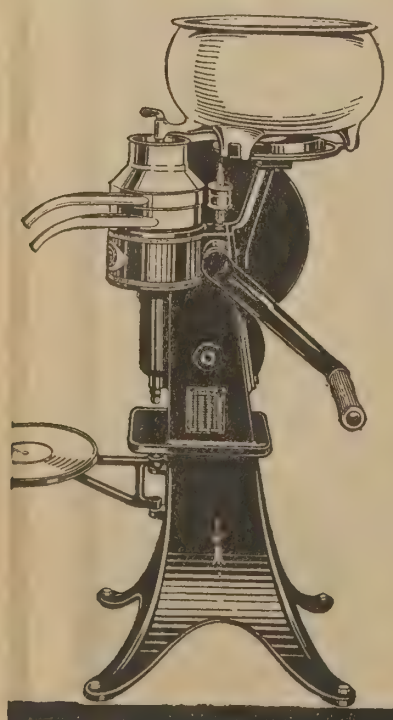
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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., NOVEMBER 7, 1924 Number 17

FEEDING THE DAIRY CALF

CHARLES W. TURNER, MISSOURI

THE great importance of raising dairy calves from the best cows in the herd does not need to be discussed at length. Except under special conditions it costs less to raise heifers than it does to buy cows and the home-raised heifers generally develop into better and more profitable cows than most of those which can be purchased. There is much less danger from contagious diseases, such as tuberculosis and abortion, when calves are raised instead of being purchased from unknown sources.

From the standpoint of the pure-bred breeder, the sale of surplus stock is the chief source of income and the importance of developing this stock to the extent of its inherited capacity is of the utmost importance.

The large number of cows that must be raised annually to replace the old cows may be estimated from the data showing the annual turnover of cows in dairy herds given by Bain of the U. S. Dairy Division. He found that of 4,707 cows in the herds at the beginning of the year, 1,905 were sold for beef, died, or were condemned for tuberculosis. This would indicate that the average productive life of the dairy cow was only a little over 4 years. When those cows condemned because of tuberculosis were not considered, the life of a cow in a dairy herd was 5.7 years. If the 24,000,000 cows used for dairy purposes in the country average five years of service, each year 4,800,000 calves must be raised to maintain our herds.

As the heifers do not come into milk until about two years of age, about 9,600,000 unproductive animals must be on hand to replace the old cows. Some idea of the cost of these animals may be gained from the fact that it is estimated by the U. S. Dairy Division that four per cent of the total milk produced is used for calf feeding.

Fall or Spring Calves

Fall calves are ready to go on pasture the following spring and need little attention as long as the pasture is good. When the pasture dries up in the summer it is often necessary to feed some grain. Shade and water are two other items of importance in summer care. It is surprising how much water will be taken by young stock on pasture.

Spring calves cannot be placed on pasture the first year. They are generally weaned in the fall and must be carefully fed during the first winter if growth is to be at a normal rate. To obtain the most rapid growth, it is necessary to supply a considerable proportion of the nutrients in form of concentrates. Where roughage even though of the best quality, such as clover or alfalfa hay, is fed alone to growing dairy animals, the growth is certain to be much slower than where some grain is fed in addition.

At the Iowa Station McCandlish found that while winter calves were only four pounds heavier than the summer calves at birth, at the age of freshening the winter heifers had made the greater gains and on the average weighed 69 pounds more than the summer heifers at the same age.

Care of Dam

Experiments have shown that under ordinary conditions the nutrition of the dam does not influence the growth of the foetus due to the small amount of nutrients required for its development as compared to milk production. When the ration is faulty, however, it quite often leads to premature birth and accompanying disorders. The chief value of giving the dam a rest is to prepare her for the strenuous lactation period following calving.



SIMPLE WAY TO FEED CALVES GRAIN WHEN RUNNING IN PASTURE

When fed skimmilk it is better to place each calf in a stanchion and as soon as each one has finished drinking it, feed them a little grain. Usually after finishing eating grain the calf has lost all desire for sucking ears, tails, etc.

Feeding the New Born Calf

The first milk or colostrum has been shown to be vitally needed by the new born calf. Studies made by Brody and Ragsdale of the Missouri Station indicate that a temporary immunity to various diseases results when the calf receives the colostrum. A mortality of from 50 to 100 per cent may be expected when calves are not given the colostrum. When calves from tubercular cows are to be raised, the colostrum should be pasteurized by heating in a water bath or double cooker, at 140 degrees F. for 30 minutes. In this way the colostrum will not coagulate upon heating. It can then be fed without danger of transmitting the infection.

The white of egg has also been found to be a fairly satisfactory substitute for colostrum. Of nine calves fed the white of egg, seven have been raised successfully. The whites of six eggs were mixed with the milk given to the calf the first feeding. Each following feeding the number was reduced one until only one was being fed. The feeding of one egg white was continued for the first week. This plan of feeding is worthy of a trial if for any reason colostrum cannot be fed.

In addition to the immunity acquired by virtue of the antitoxins which protect the calf from certain common diseases, the laxative effect of the colostrum cleans the digestive tract of fecal matter. While only a small amount of colostrum is necessary for the well being of the calf, due to the fact that the first milk is not generally used, it is a common practice to allow the calf to remain with the dam from two to four days until the milk can be used. The calf should then be taught to drink milk out of a bucket. In most cases this can be accomplished by letting the calf suck a finger while gradually forcing the calf's head into the pail. The finger is then removed and the calf will start to drink the milk.

From 2 to 5 pounds of whole milk is fed three times per day until the calf is three or four weeks old. Hulce and Nevens of the Illinois Station recommend that whole milk be fed at the rate of one pound of milk daily for each eight pounds of live weight. Weakly calves often do better if fed smaller amounts of milk four times per day.

The effect of varied amounts of skimmilk on the growth of calves was tried by Woodward of the U. S. Dairy Division. Sixteen calves were divided into four groups of four animals each. Each calf received whole milk for ten days and then gradually changed to skimmilk. At 15 days the following amounts were fed with the results indicated:

Rate of Feeding Skimmilk to Calves

Group	Skim-milk per day	Ave. daily gain	Skim-milk per lb. of gain
	Lbs.	Lbs.	Lbs.
1. At rate of 1-7 body weight	13.5	0.95	14.2
2. At rate of 1-6 body weight	17.0	1.09	15.7
3. At rate of 1-5 body weight	21.0	1.26	16.6
4. All they would take twice daily	24.2	1.48	16.3

For the sake of economy, milk from cows known to produce milk of low test should be used. Ordinarily calves will do as well if not better when fed such milk. The importance of having the pails clean and the temperature of the milk as near that of freshly drawn milk (95 degrees to 100 degrees F.) is emphasized by experienced calf feeders. Calves should never be fed in a trough together as some will over-eat while others will be under-fed. The trough also cannot be kept clean. Hooper of the Kentucky Station found that during the first 7 to 10 weeks of the calf's life, calves will be more thrifty when fed milk through a nipple, due to the fact that as they suck the milk they mix it thoroughly with saliva and take it slowly. After the seventieth day the nipple was no more effective than bucket feeding. These devices cannot be recommended, however, unless extreme care is taken to keep them clean.

Feeding Grain and Hay

When the calves are two or three weeks old, they will begin to eat small amounts of choice hay and grain. The grain should be fed dry and not mixed with the milk. The best time to feed grain is just after the milk has been fed. The hay can be fed later. When dry feeds are fed after the milk the calves do not try to suck each other as much as they otherwise would. Thrifty calves will eat about one-half pound of grain at six weeks, one pound at two months, and two pounds when between three and four months of age.

While milk is the best food for the young calf, experiments by Davenport of the Illinois Station, and more recently by McCandlish of the Iowa Station, seem to indicate that milk is not entirely fitted to serve as the sole diet of ruminants later in life. McCandlish fed nothing but milk and salt to two calves. The animals did fairly well for three months but from that time on did not thrive. One calf died when 176 days old and the other when 208 days old. It is thought that as the stomach enlarges, the milk being very digestible leaves the residue of indigestible matter of insufficient bulk to cause the proper movement of the contents of the digestive system. This results in a stagnation and consequent production of poison or toxic materi-

(Continued on page 510)

BETTER COWS AND LEGUMES DID IT

CLIFFORD FARMER, MISSOURI

"YOU will know his place by the brown buildings," the stranger whom I had stopped in the road told me in directing me to the farm of U. P. Burns, south Missouri dairyman, "—and the good fences," he added as an afterthought.

And I soon found that his directions had been right for, after driving through miles of hill country where many of the farms were not even fenced, I could appreciate what had been meant by "good fences". I found when I met Mr. Burns and his son, Maynard, that "good fences", neatness, was only a characteristic, a characteristic I saw manifest in the cow barn, in the pastures, and in the dairy herd.

"When I bought the farm eight years ago," said Mr. Burns, "the fence rows were thirty feet wide and there was some brush growing everywhere. Wide ditches followed the hollows in each field. The land, post oak flats they call it around here, was pretty thin. In fact, many have told me since that it was the poorest farm in the neighborhood." Which statement corroborated what the county agent, Walter F. Delp, had told me.

Now the farm looks different. The brush and neglected fence rows are gone. Clover grows abundantly where once it took much fostering to get it to grow. Neat, convenient, but not expensive buildings have replaced the shacks. Good Holstein cows have been the pivot about which the rest of the farming operations swing.

Mr. Burns was a traveling salesman before moving to the farm. The increasing interest in dairying throughout his territory in the Ozarks only increased his desire to own a farm. Another factor that influenced him to make a change was his son, Maynard, then eighteen, who had to quit college because of weak eyes. Realizing that it would be impossible for the son to work indoors, Mr. Burns put the matter up to him and they decided to try farming with Holstein cows.

So they went out in search of a farm. Not having had much experience with different types of soil, they were led to believe that anything that was not too rough for cultivation would make a good farm. So when a 120-acre plot was found in Greene County priced very low, they bought it. The first year showed them that the land needed something. The corn grew only waist high, then turned yellow and made only "nubbins" and the pasture turned out to be mostly weeds. "Legumes," said the county agent and they took his advice.

"I think legumes were our salvation," remarked Maynard, the enthusiastic junior partner of the Burns & Son firm, "—and dairy cattle. We had the soil tested and found it was sweet. But clover would not grow. So we tried soy beans and they did the trick. After growing them we had no trouble getting the clover to catch. We had bought up a few dairy cows, grade Holsteins, and used the manure from the herd to spread on the thinnest spots of the farm."



MAYNARD BURNS AND A PAIR OF HIS "SKIMMILK" HEIFERS

To go over the farm makes it hard to believe that clover once would not grow for now it grows vigorously. But soy beans are still the favorite with the Burns as a legume hay for cows. They consider it a better feed for milk production and get a bigger yield per acre than with red clover. A rotation of corn (for silage), wheat, or oats and clover, with soy beans worked in when clover is killed by a late freeze, keeps up the soil fertility.

A registered bull was placed at the head of the grade herd at the very beginning. So good were his calves that they decided to buy a few registered females. Buying only four as a foundation, the herd of 30 head now contains 12 registered females. Home records have been kept of each cow's production. These records have enabled them to cull out the poorer cows, as younger females of their own breeding came on to replace them, and has also helped in bettering their feeding methods.

These records are very interesting. Taking a few cows at random through the books, we find one cow produced as follows:

1920, 255.2 lbs. fat; 1921, 278.2 lbs. fat; 1922, 310.9 lbs. fat; 1923, 401.0 lbs. fat.

And another cow's record is: 1921, 184.9 lbs. fat; 1922, 267 lbs. fat; 1923, 325.8 lbs. fat.

And another: 1921, 247 lbs. fat; 1922, 270.9 lbs. fat; 1923, 463.8 lbs. fat.

"The increase has been due to better feeding and management, a better knowledge of how to care for the cows," said Mr. Burns. "We have always fed mostly home-grown feeds and, of course, now that we are growing more per acre than formerly we have more to feed. Then weighing the milk showed us how easy it was to make the cows increase by better feeding and proved to us that it paid.

"I believe too much is said about better breeding and not enough about better feeding and management. I know of several farmers who have bought extra well-bred cattle, half starved them and then blamed the cattle for not producing well. In a way a cow is just a machine and you are going to take out just in accordance with what you put into her. I certainly believe in better sires and good blood, but I'm sure the average herd's production could be increased by better feeding."



THE COW BARN ON THE BURNS FARM, BUILT OF NATIVE OAK AND STAINED BROWN WITH OIL

Not only are the cows well fed, but here the young stuff receives careful attention in order to be grown into large, strong animals. Heifers, raised on skimmilk and a liberal grain feed with good pasture in summer, have been developed on the farm so well that with their first calves they have milked better than their dams. Stunting a heifer the first year can never be overcome, according to Mr. Burns who has learned much from experience the eight years he has been on the farm.

The "brown buildings" that the stranger along the road had mentioned were built of native oak, sawed on the farm, and stained with a cheap grade of oil, making them neat in appearance and weatherproof. The cow barn, 30 by 40 ft., joined at one end by a silo and an old building used for hay and bedding storage, is cool in summer and warm in winter. Concrete floors, steel stanchions, and plenty of windows for sunshine and ventilation make it a very convenient, economical barn. A roomy machine shed where all the farm implements are housed and a poultry house built of the same material and stained brown, add much to the appearance of the well-fenced place. All of the work of building was done by Mr. Burns and his son, both of whom are handy with tools.

Water from a 300-foot never-failing well is piped to all parts of the farm and into the dwelling. The home, roomy and comfortable, contains modern equipment including a radio set to make farm life a pleasure.

From a financial standpoint the farm venture has been a success. But it has been more than that to the Burns. Maynard's eyes have regained their strength after ceasing the indoor strain on them, the Burns have proved to themselves and their neighbors that they can make good where failure was predicted and a wonderful new future has been opened up to them. With the good herd of Holsteins coming on, a productive farm, and a comfortable home, free of incumbrances, have they not a right to be well pleased?

Ohio Holstein Breaks World Record for Age

HOARD'S DAIRYMAN:—Pauline Brightview No. 113832, a pure-bred Holstein owned by Daisy Hill Farms of Ohio, has just completed what is believed to be a world's record for cows fifteen years old or over. Her record, made at the advanced age of fifteen years, six months and after dropping her twelfth calf, is given as 23.47 lbs. fat (26.84 lbs. butter, 80% fat) from 551.7 lbs. milk. These figures are as furnished by Jas. A. Reynolds who is in charge of Daisy Hill Farms.



PAULINE BRIGHTVIEW, OWNED BY DAISY HILL FARMS, OHIO

This is the second time this great cow has set a new high mark for her age. Last year, at fourteen years old, she broke the world's record for that age with 24.04 lbs. fat (30.05 lbs. butter) in seven days and 98.4 lbs. fat (123 lbs. butter) in thirty days. As a nine-year-old, she made a strictly official year record of 895.76 lbs. fat, and 25,606.1 lbs. milk.

The record of Pauline Brightview as a mother is about as imposing as her record as a producer. In twelve freshenings she has dropped five daughters and seven sons. Her oldest daughter and first calf is a 1,000-lb. cow and has had six daughters and two sons. Her second daughter, a 28-lb. cow, has had three sons and two daughters and her third daughter, a 900-lb. cow, has had three daughters and two granddaughters.

In the present Daisy Hill herd may be found Pauline Brightview herself, who gives no evidence of being much past the prime of life, also three of her daughters, five granddaughters, and four great granddaughters, all through the direct female line. It is not every breeding establishment that can show such a family all descended from one cow.

New York. W. A. PRESCOTT.

A Houston roadsign painter suggests the following signs for railroad crossings:

"Come ahead. You're unimportant."

"Try our engines. They satisfy."

"Don't stop. Nobody will miss you."

"Take a chance. You can get hit by a train only once."—Houston Post.

Tiddledywink Raleigh and Five of His Daughters

S. R. WINTERS, WASHINGTON, D. C.



TIDDLEDYWINK'S SNOWDROP
Record: 8,054 lbs. milk, 564 lbs. fat at 2 years, 10 months.



JERSEY BULL, TIDDLEDYWINK RALEIGH



TIDDLEDYWINK'S ROSIE
Record: 8,868 lbs. milk, 505 lbs. fat at 2 years.



RALEIGH'S QUIET LADY
Record: 7,611 lbs. milk, 494 lbs. fat at 2 years; 635 lbs. fat at 3 years.



RALEIGH'S PET QUEEN
Record: 7,750 lbs. milk, 459 lbs. fat at 2 years; 635 lbs. fat at 3 years.



TIDDLEDYWINK'S FAVORITE
Record: 516 lbs. fat at 2 years; 630 lbs. fat at 3 years.

TIDDLEDYWINK Raleigh, probably the youngest sire of the Jersey breed of dairy cattle to qualify for a silver medal, has been purchased by the Bureau of Dairying of the United States Department of Agriculture for breeding experiments at Beltsville, Maryland. This bull, bought by the federal government from Cole Laughlin of Ohio, is one of the three proven sires to be used in experiments in which close inbreeding and outbreeding of dairy cattle are being compared.

Tiddledywink Raleigh is the sire of approximately ten daughters on test that are making creditable milk and butterfat records. His dam, Gamboge's Tiddledywink, was an important cow, being the grand champion at the National Dairy Show in 1912. The latter has another son that has qualified for both silver and gold medals, reference being made to Tiddledywink Noble. This gives the distinction to Gamboge's Tiddledywink of being the only important cow having two silver medal sons. Furthermore, the bull recently acquired by the Bureau of Dairying is expected to qualify for a gold medal, in which event Gamboge's Tiddledywink will have two sons that have been awarded both silver and gold medals.

The newly purchased bull for the dairy experiment farm at Beltsville is of a splendid type and of a good size, according to R. R. Graves, in charge of dairy cattle breeding experiments for the Bureau of Dairying. This sire has three daughters that have complied with the Jersey Register of Merit requirements. Moreover, the remarkable production records of the daughters of Tiddledywink Raleigh were made when being milked only twice a day.

Better Bulls in Connecticut

A. R. MERRILL, CONNECTICUT

THE pure-bred bull campaign inaugurated last October in five counties in Connecticut has just rounded out a rather successful year's work. This campaign was put on to eliminate, as far as possible, the scrub bulls so much in evidence in this state.

In order that accurate information might be available, surveys were put on in New London, New Haven, Windham, Middlesex, and Tolland Counties, which showed that over half the bulls in use were scrubs.

Connecticut has been looked upon as a market milk state and few people have ever considered that the raising of calves amounted to anything. The surveys showed that the number of heifers raised annually, in these five counties, ran from 1,150 to 2,700, and that at least half of these were sired by scrub bulls.

Connecticut has been importing about 7,500 cows annually. These cows have not been of a type that has tended to increase the milk production of the state which averages 4,242 lbs. per cow. Considering the number of cows brought into the state, annually, and also the number of heifer calves raised, it seemed self evident that the only way to increase the average production of our herds must be by some constructive breeding plan. Naturally the first step would be by the use of pure-bred bulls.

Preliminary to this better bull campaign Mr. H. F. Johnson, at that time county agent for New London County, had during the winter of 1923 carried on a dairy survey to determine the standard of dairying in that county. This survey paved the way, so to speak, for the surveys made in the other counties later on. In addition to the survey he had placed eighteen pure-bred bulls. This work seemed so much worth while that at the extension conference, held at Storrs, in October 1923, it was decided to put on a campaign for better bulls in the above named counties. Since this was distinctively a dairymen's problem it seemed only reasonable that the dairymen themselves should play an important part in the work to be done. The following method for carrying on the work was decided upon: The first step was to secure the approval of the Farm Bureau directors who appointed a farm bureau dairy committee. This committee, working for the county agent, appointed a county campaign committee made up of one member from each town who was to act as chairman of a town committee to be appointed from each town. These town committees made surveys of the dairy interests in their respective towns, securing information as to the number of cows and heifers kept, number of heifer calves raised yearly, and the number of pure-bred or scrub bulls kept on each farm. After this information had been secured, a town meeting of this committee was called, at which time the information gathered, supplemented with figures taken from Dairy Commissioner Holt's office, was discussed. General plans for the carrying on of the campaign were taken up. These plans included the sending out of publicity notes regarding the purpose of the work and stories of actual results obtained where pure-bred bulls had been used on grade cows, were written by Walter Stemmons, agricultural editor for the Connecticut Agricultural College.

Co-operative work was taken up with the different breed organizations who sent representatives to assist at public meetings, these representatives also assisted the county agent and town committees in visiting owners of scrub bulls. Public meetings were held in different towns throughout the counties and much publicity was given regarding the value of pure-bred bulls. The different towns and county publications assisted in this work by printing reports of the meetings and giving other information regarding the work from time to time. In all of the work there has been a fine spirit of co-operation shown by all of the parties interested. The actual responsibility of the campaign has been taken by the individual county agents who have been ably assisted by their county and town committeemen.

There are still many scrub bull owners to be visited in all of these counties, in fact not over half of the scrub bull owners in New Haven, Windham, and Tolland Counties have been visited to date.

Up to October first, 1924, 253 pure-bred bulls have been placed in these five counties, most of these replacing scrub bulls.

Probably the most intensive work has been done in New London County. The work in this county has set the record for all county work in the United States. Since the work started a year ago 112 pure-bred bulls have been placed. No other counties in the United States with the exception of two have ever reached anywhere near this mark. Blue Earth County, Minnesota, placed 106 bulls and a California County placed 104.

The work in this county was directed by Walter T. Clark, the present county agent, and he was assisted by John A. Simms, Extension Animal Husbandman. These two men with the assistance of their various committeemen have put across a piece of work that should receive great credit. This county is by no means an outstanding dairy county, consequently the work accomplished is still more noteworthy. These men have been able to show the value of better breeding and the dairymen have profited by their advice.

In all of the work on this campaign it has been up to the individual committeemen to help put the work across. Public spirit has done the work. No paid sales agents have ever been employed, but the actual work has been carried on by enthusiastic dairymen.

In order to help prospective purchasers, the Extension Service has called upon different breeders and associations to list available bulls that they have had for sale. The value of production has been emphasized. The minimum limits for production have been set as follows: Holsteins 12,000 lbs., Ayrshires 11,000 lbs., Guernseys 10,000 lbs., and Jerseys

(Continued on page 530)

DAIRYING IN SOUTHERN CALIFORNIA

A. J. MASON, CALIFORNIA

A SYSTEM of dairying differing from that of any other milk producing section of the United States has been developed in Southern California. It is the outgrowth of conditions peculiar to the Los Angeles district, and in many respects is contrary to theory and precedent.

Most of the whole milk producers catering to the Los Angeles market are within 50 miles of the city and operating upon land ranging in value from $500 to $3,000 an acre. Consequently they concentrate upon as small an acreage as possible and buy a large percentage of their feed. They are not concerned with the breeding end of the business and, when possible, avoid raising calves.

This results in a tremendous "turnover" of dairy cattle, authorities estimating that from 2,000 to 3,000 cows a month are necessary to supply the demand from the comparatively small district tributary to the city.

Exactly the reverse of the situation prevailing in other states is found, in that a cow which has just freshened and can be guaranteed as to production is worth considerably more than a "springer" of even better breeding.

In fact, breeding is a comparatively minor consideration with commercial dairymen of the Los Angeles district. They do pay considerable attention to form, capacity, and appearance, but are interested mainly in keeping their cows at the height of production during as many months as possible. They have not the land, feed, nor time to spend upon caring for "drys", erratic producers, heifers, and calves.

The general plan is to weed out every cow that will not produce 30 pounds or more, and many animals are retained only a year, although some of the best individuals in the stronger dairies are held two or three years.

Dealers are constantly scouring the state and even adjoining states for new stock to supply the ever-grinding mill. And, of course, one evil of the system is that many of the less desirable cows find their way back into the sale ring. Thousands of animals, however, which in other dairy districts might be considered worthy of breeding and retaining for a much longer period, are slaughtered.

A serious evil which has attended dairying in Southern California in the past was the "T. B." menace. Until the passage of a recent county ordinance making it a misdemeanor to bring into Los Angeles County or offer for sale any cattle not inspected and passed by an official, licensed veterinarian, hundreds of infected cows found their way to local producing plants.

By pasteurizing the milk, however, producers were enabled to market the output, and the traffic in doubtful animals reached large proportions. Now California is well on the way toward stamping out the tuberculosis evil with several counties already declared free areas and others under consideration.

Los Angeles County, anticipating a veritable onslaught of undesirable stock as soon as the hoof and mouth disease quarantine was lifted, made effective in June of this year her own regulatory measure, with provision and funds for strict enforcement.

Most elements in the industry, including the auction companies (which are an important factor) have seen the wisdom and necessity of this law, or at least the futility of opposing it, and have announced their intention of co-operating.

Auction selling is regarded as an integral part of the Los Angeles dairying system. In fact, it is doubtful whether the enormous traffic in cows could be maintained were it not for the speed with which the sales are conducted.

One local auction company during one year held more than 300 dairy sales, averaging 35 head, with an average total time for each sale of less than three hours! More than 12,000 cows were put through the ring by this same concern last year, at an average price of $125 a head. Most of these were sold "on time", with little or no payment down and the balance payable in nine months through an allied loan company.

It is estimated there are normally about 1,200 herds supplying whole milk to the city of Los Angeles, of which the most distant is not more than 100 miles away from the City Hall, with the majority from 10 to 50 miles out. Practically all these follow the general plan of high speed production without regard to length of life or ultimate disposal of the animal.

"A wasteful system," is the read-

(Continued on page 527)

INDIANA FEEDING EXPERIMENT

WHAT are the comparative values of soy beans, tankage, alfalfa pasture, and mineral mixture when fed self-fed free choice with corn to pigs weighing 74 lbs. beginning weight? This is a question answered by a recent report from the Indiana Experiment Station.

The experiment indicates that soy beans, when properly fed, compare very favorably with tankage and with alfalfa pasture as protein supplements in hog feeding rations. The experiment also suggests that simple mineral mixtures and alfalfa pasture can well be more generally used in pork production.

The conditions of the feeding experiment were as follows: The initial average weight of the pigs used was 74 lbs. Ten pigs were used in each lot. These pigs are to be carried to 220 lbs. final weight. The mineral mixture used was composed of 10 parts of wood ashes, 10 parts of 16 per cent acid phosphate, and 1 part of salt by weight. Corn was charged at $.84 per bushel, soy beans at $1.25 per bushel, tankage at $65 per ton, and pasture at $6 per acre. The results given cover the first 90 days of the experiment.

In the dry lot section group 1 had corn alone; group 2, corn and mineral; group 3, corn and soy beans; group 4, corn, soy beans, and mineral; group 5, corn and tankage; group 6, corn, tankage, and mineral.

In the alfalfa pasture section six groups of pigs were fed in a similar way to those in the dry lot section.

It is interesting to note that corn alone in dry lot feeding is most expensive when compared with protein supplements. It took 743 lbs. of corn worth $11.15 to produce 100 lbs. of pork in dry lot, whereas 290 lbs. of corn plus 100 lbs. of soy beans produced 100 lbs. of pork under dry lot conditions and the cost was only $6.43. The cost goes down to $6.02 when 286 lbs. of corn, 78 lbs. of soy beans, and 5.3 lbs. of minerals are fed in combination. Corn, tankage, and mineral produced 100 lbs. of pork at a feed cost of $6.28.

Here is one to think about. In lot one, dry lot section, it took 743 lbs. of corn worth $11.15 to produce 100 lbs. of pork. In lot one, alfalfa pasture section, it took only 372 lbs. of corn plus the alfalfa pasture to produce 100 lbs. of pork costing $5.83. In other words, 754 lbs. of corn fed in combination with alfalfa pasture will produce 200 lbs. of pork at a cost of $11.66 for the 200 lbs., whereas, if 743 pounds of corn are fed alone, dry lot feeding, it will only produce 100 lbs. of pork and the cost will be $11.15, or only $.51 less than for the 200 lbs. of pork in the alfalfa lot.

Corn, soy beans, and mineral produced 100 lbs. of pork at a feed cost of $5.70, when alfalfa pasture was available. Corn, tankage, and mineral produced 100 lbs. of pork at a feed cost of $5.67 under similar conditions.

Purdue experiments show that whole soy beans are just as efficient as ground soy beans for fattening hogs. It pays to feed a simple mineral mixture when soy beans are used as the protein supplement. They also show that mineral mixture should be fed when soy beans are hogged down with corn. Strong, healthy pigs are produced by sows fed on a corn-soy bean-mineral ration.

Soy beans without mineral are worth $1.12 per bushel as compared with $1.52 per bushel with mineral, when compared with tankage worth $65 a ton.

If corn is figured at $1 per bushel, soy beans without mineral are worth $1.08 per bushel and with mineral $1.64 per bushel.

With corn at $.84, soy beans at $1.25, tankage at $65.00, mineral $.02 and pasture at $6.00, soy beans in dry lot are worth $1.18 without mineral and $1.34 with mineral. On pasture, soy beans without mineral are worth $1.25 and with mineral $1.89 per bushel.

Lot	Ration	Ave. daily gain lbs.	Feed for 100 lbs. gain	lbs.	Feed cost of 100 lbs. gain
			Dry Lot		
1	Corn alone	.41	corn	743	$11.15
2	Corn; mineral	.56	corn	589	$ 9.32
			mineral	24	
3	Corn; soy beans	1.24	corn	290	$ 6.43
			soy beans	100	
4	Corn; soy beans mineral	1.54	corn	286	
			soy beans	78	$ 6.02
			mineral	5.3	
5	Corn; tankage	1.46	corn	250	$ 6.32
			tankage	33	
6	Corn; tankage mineral	1.55	corn	346	
			tankage	33	$ 6.28
			mineral	.9	
			Alfalfa Pasture		
7	Corn alone	1.30	corn	372	$ 5.83
8	Corn; mineral	1.39	corn	355	$ 5.65
			mineral	4.1	
9	Corn; soy beans	1.64	corn	306	$ 5.59
			soy beans	38	
10	Corn; soy beans mineral	1.65	corn	327	
			soy beans	23	$ 5.70
			mineral	5.4	
11	Corn; tankage	1.67	corn	328	$ 5.93
			tankage	25	
12	Corn; tankage mineral	1.75	corn	310	
			tankage	25	$ 5.67
			mineral	.6	



Lot 1—These pigs gained only .41 pound daily on corn alone dry lot feeding experiment at the Indiana station.



Lot 7—These pigs gained 1.30 pounds per head daily on corn alone and alfalfa pasture at the Indiana station.



Lot 4—These pigs gained 1.54 pounds per head daily on a corn —soy bean—mineral ration at the Indiana station.

Mississippi State Fair

HOARD'S DAIRYMAN:—The dairy cattle exhibit at the Mississippi State Fair, October 13—18, was an outstanding feature of the fair. A "Little National" was what one of the exhibitors termed it. And it looked like it was pretty aptly named as there were 240 head of Jerseys on the grounds. Dairy cattle and Jersey cattle are practically synonymous in this section of the country. Of course, other breeds have been introduced in a limited way but they do not seem able to displace the Jersey in the popular fancy. No other breeds were represented at the fair this year.

There is no estimating the benefit to this state of the splendid exhibit. Mississippians were not as strong among the exhibitors as has been the case in the past but they were strong at the ringside on judging day and in the barns all through the week. The largest exhibit previous to this year was 141 head in 1921. That gives an idea of the improvement in numbers. The quality of the animals was fully up to and probably better than any exhibit held heretofore in this state.

As stated above, the number of animals exhibited by Mississippians was smaller than had been hoped for. However, the number of individuals represented by the cattle owned within the state was quite large. Five county herds were on exhibit. A county herd is made up of two bulls and six females and must represent at least four owners. The five county herds would thus represent a minimum of twenty owners. As a matter of fact twenty-four were interested in the county herds. Add to that a considerable number of local people with small entries and it gave us quite an imposing group of beginners. That it had been well worth their time from an educational standpoint and they would be back again was the sentiment expressed by nearly all of them. And it must have been quite an interesting lesson to them. To see them grooming their cattle under the directions of the experienced herdsmen gave one an insight into the fraternal feeling existing among the owners of pure-bred cattle.

One of the most interesting exhibits of the fair was put on by the Illinois Central Railroad Company. It consisted of six pure-bred bulls, part of a lot of twenty which they bought two years ago and placed with farmers along their lines, and a total of fifty-six heifer calves. The larger part of these calves were grades. The lesson would have been more forcefully driven home if the dams could have been shown but it made a fine demonstration of the value of a pure-bred sire as it was. Incidentally one of the bulls was good enough to stand in second place in a class of twelve, while another won a fifth.

Professor J. P. LaMaster of Clemson College, South Carolina, awarded the ribbons. Competition was close in nearly every class and the premiums were pretty well distributed. Henderson had the junior champion bull in Dahlia's Noble Major 212471, while Ridge Spring Farms had the senior and grand champion in their three-year-old Glenn's Raleigh Lad 198654. In the female classes, Inderkill captured the junior championship on Chieftain's Flora Mary Dean 564604, a senior yearling heifer, and the senior and grand on Financial May Queen 579180. She showed size, capacity, udder development, quality, and type combined in a way that could not be denied. Fagan felt especially pleased when the calf classes were reached. His young bull, Leda's Raleigh's Grandson 206592, has been siring just the kind that Professor La Master likes and they were well up in the winning each time. All in all, it was a show from which good is bound to come. H. C. FERGUSON.

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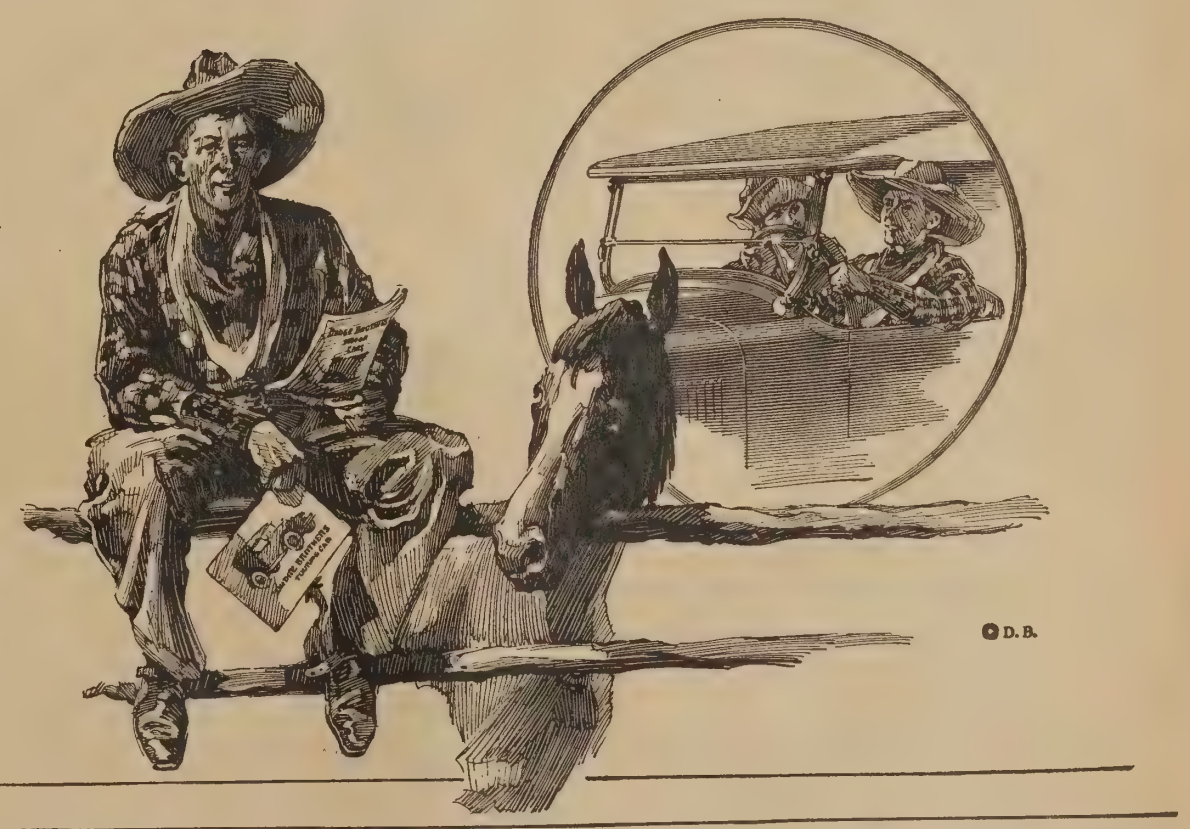
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A recent survey of 506 herds supplying the public with milk shows that 329 of these, or 65%, have been tested for tuberculosis within the past year and reactors removed. The fact that only 1.47% of all the cattle tested in Maine during the past year have reacted indicates that but very few cattle remain which are infected.

Maine cattle have been found to have fewer reactors than any other state east of the Mississippi River, several states having from 20 to 35 per cent reactors. Roughly speaking, for one reactor in Maine twenty are found in these other states.

Among milk dealers, a larger percentage of herds tested have been found near the cities and fewer herds tested which are supplying the small towns and villages.—F. A. BARBOUR, State Dairy Inspector.

Bert: And you girls never quarrel?

Gert: My, no! We live in an apartment where there isn't room for an argument.—Everybody's Magazine.

Boss—The last boy I had was worth twice as much as you.

Store Boy (timidly)—Please sir, did he get it?—Good Hardware.





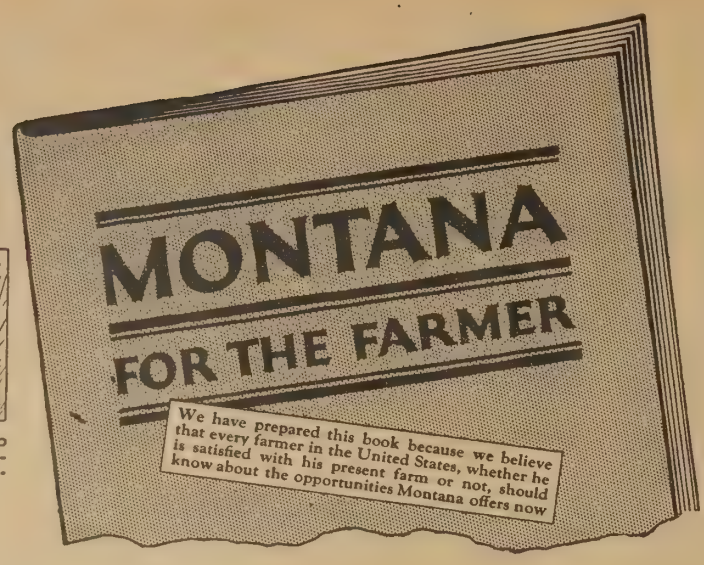
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C. M. Peterson, *who came to Montana from N. Dakota*



J. W. Randles, *who came to Montana from Ohio*

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FITS ANY PUMP AND MAKES IT HUMP

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Ind.	W. Hamilton	Sept.	G. J.	60.7	H. Overman
"	Clark-Scott	"	G. J.	62.9	L. H. Dreyer
Mich.	Chelsea & Manchester	"	R. J.	52.7	F. Notten
Mich.	Rives.-Jack.	"	G. H.	64.7	H. Schmidt
Wash.	Gr. Harbor	"	J.	69.6	J. Taylor
Nebr.	Douglas Co.	"	G. G.	65.8	J. C. Forburger
Iowa	Fayette 1	"	G. H.	54.1	W. Lincoln
Wis.	Cen. Monroe	"	G. G.	60.3	W. E. Hubbard
"	Cataract	"	R. H.	51.4	State School
"	Norwalk	"	R. H.	53.2	Telock Bros.
"	Cashton	"	G. D.	57.9	P. J. Neuheisel
"	Arcadia	"	G. H.	65.7	W. F. Rosenow
"	Eau Claire	"	G. H.	56.3	Hartl Bros.
"	Superior	"	G. G.	63.2	Douglas Co. Farm.
"	Mt. Hope-Lancaster	"	G. C.	66.2	Sisley, Brady & Stevens
"	Nor.-Jackson	"	G. H.	53.6	G. Gilbertson
"	Kick.-Clayton	"	G. J.	61.1	C. B. Holcomb
"	Rock Elm	"	R. G.	72.0	Wild Bros.
"	Ells.-Prescott	"	G. S.	57.9	J. J. Elling
Vt.	Conn. Valley	"	R. H.	71.7	C. O. Sawyer
Mich.	S. Menominee	"	G. H.	59.0	A. Fries
"	Cass Co.	"	G. G.	73.6	A. Aldredge
"	N. Antrim	"	G. H.	51.1	G. Drenth
Minn.	Pine Co. 2	"	R. H.	79.3	Weideman Bros.
Ky.	Campbell Co.	"	R. J.	67.0	E. S. Bird
"	Mason Co.	"	R. J.	86.3	Penant Bros.
"	Campbell Co.	Aug.	R. J.	71.0	E. S. Bird
"	Mason Co.	"	R. J.	74.0	Penant Bros.
Ohio	Licking Co.	Sept.	R. J.	67.3	F. Stevens
Ill.	Frank.-Jeff.-Marion	"	R. H.	88.2	Wardland Farms
Ore.	Columbia	"	G. H.	77.7	Widmer Bros
Mo.	Greene Co.	"	R. J.	52.8	J. C. Baxter
Wash.	Snohomish	"	R. G.	69.1	Valley Gem Farms
Ind.	Del. Co.	"	G. H.	73.2	E. T. Sharp
"	Culver	"	R. H.	66.5	J. A. Newman
Ia.	Des Moines	"	R. J.	60.5	G. E. McIntyre
"	Dubuque 3	"	G. J.	51.9	C. A. Hamil

Association Notes by Testers

West Hamilton County, Ind.: Four silos were built, three wood stave and one cement, two being built for summer use. Six cows entered in R. O. M. testing. One member equipped his milk house with a steam boiler. Five barns were whitewashed. The condensery paid $1.60 per cwt. and the creamery $2.00 for market milk. Milk retailed for 12c per quart in September.—T. D. Barclay.

Clark—Scott, Ind.: Oscar Erni's pure-bred Jersey finished her lactation period of 343 days with 603 lbs. fat. This cow was first in the state class at the state fair. Mr. Erni also has a grade Jersey which in the first six months of the testing year produced 383 lbs. fat. Market milk sold for $2.32 per cwt. Sweet cream brought 44c per lb. fat in September.—W. W. Barnett.

Chelsea and Manchester, Mich.: All herds in this association have been tuberculin tested and very few reactors found. The soil on over 20 farms has been tested by the tester and all but one need lime. Nearly all members use pure-bred sires. Market milk sold for $3.00 per cwt. and retailed for 8—10c per quart in September.—G. Crowell.

Rives—Jackson, Mich.: Two separators were tested with good results. One barn was whitewashed. The sixth member has started keeping milk records. Nearly all members feed grain. Corn is nearly mature here. In September market milk sold for $2.50 per cwt. The creamery and cheese factory each paid $1.70 per cwt. for milk.—J. Bird.

Grays Harbor, Wash.: Milk and fat averages were lower in September due to dry pastures, the driest in several years. The condensery paid 52c per lb. for fat, the cheese factory and creamery 42c, in September.—F. R. Haynes.

Fayette No. 1, Ia.: Several members started feeding their cows grain. Green corn is being fed to some herds with satisfactory results. The creamery paid 45c per lb. for fat in August.—C. White.

Superior, Wis.: Most members have started feeding for winter production. A large number of herds are kept in barns at night. The highest cow made 354 lbs. fat in six months. There are also a number around 300 lbs. fat. Market milk sold for $1.90 per cwt. and retailed for 10—13c per quart in September.—H. High.

Mt. Hope—Lancaster, Wis.: Two members installed milking machines. Two new barns were completed. About one-half the members feed grain to cows on pasture. The cheese factory paid 45—50c per lb. for fat, the creamery 38c. Milk retailed for 10c per quart in September.—B. G. Paulson.

Northfield—Jackson, Wis.: Alfalfa acreage is on the increase. Association stock and calf club calves won several ribbons at surrounding fairs this fall. Butterfat brought 39c at the creamery in September. Farmers are not encouraged to feed grain in any amount.—C. Hoke.

South Menominee, Mich.: Two new dairy barns are being built and nine members feed silage and grain to supplement pasture. In September milk retailed for 10c per quart. The cheese factory paid 40c per lb. for fat.—R. D. Maxon.

Cass Co., Mich.: Two new members started using milk sheets. Five diplomas were received from the National Dairy Show. Feed is a hard proposition, with no corn and early frosts feared. Silo filling has begun. High butterfat average was 35.4 lbs. made by T. B. Moore with a herd of 8 pure-bred and grade Holsteins. The association average for September was 19.3 lbs. fat. Market milk sold for $2.12—2.60 per cwt. in September.—A. Morley.

North Antrim, Mich.: This association boasts of 31 members and is in its third successful year. Butterfat sold for 35—36c per lb. in September. The 241 cows tested averaged 449 lbs. milk, 20.5 lbs. fat, which is very low due to many cows being dry. The net gain for cows on test was $4.61.—G. G. Mullett.

Pine Co. No. 2, Minn.: Most cows are dry. The association had its lowest average in September, being 20.1 lbs. fat. About 40 cows will reach the 365-lb. mark by the end of the year, which is next month. The cheese factory paid 41c per lb. for fat, the creamery 40c. Milk retailed for 9c per quart in September.—H. Roth.

Franklin—Jefferson—Marion, Ill.: Thirteen cows were purchased in Wisconsin by the Wardland Farms. A few members attended the National Dairy Show in Milwaukee and purchased some new equipment. Silo filling and hay making is going on in full blast. In September market milk sold for $3.00 per cwt. and retailed for 12½—15c per quart. The creamery paid 37c per lb. for fat. Two new milkers have been purchased since the middle of August. One new Delco light plant has also been purchased.—G. R. Smith.

Columbia, Ore.: Butterfat took a sudden drop of 5c a lb. but is slowly recovering. The fight against the sale and manufacture of oleo is on in full blast in this state and indications point to a tough battle. Market milk sold for $2.20 per cwt. and retailed for 8—11c per quart. The cheese factory paid 44c per lb. for fat in September.—W. T. Noble.

Snohomish Co., Wash.: The first of the year a new association will be started for the small dairyman. The plan of operation will be for each dairyman to take his own samples. These will be gathered up by the tester and tested at some central station. This arrangement will enable a tester to care for several herds each day. The new association will in no way affect the working of the present association which will continue as before. Market milk sold

the first half of September for $2.50 per cwt., the last half of September for $1.80, and retailed for 10c per quart. The condensery paid $1.80 per cwt. for milk in September.—D. L. Saunders.

Greene Co., Mo.: The outlook for dairying is very good as the local market is in strong demand for good quality product and good feed is plentiful and moderately priced. The 333 cows tested averaged 429 lbs. milk, 19.63 lbs. fat in September. Local breeders did well at the Ozark Stock Show. Market milk sold for $2.50 per cwt. and retailed for 12c per quart in September.—V. L. Gregg.

Culver, Ind.: The herd of J. A. Newman has qualified for the bronze medal given by the Indiana State Dairy Association for a herd with ten cows producing in excess of 300 lbs. fat yearly. This is the second herd from this association to secure this honor. The pure-bred Guernsey herd of C. E. Lewis had the high fat average for September of 39.8 lbs. fat. Market milk sold for $2.45 per cwt. and retailed for 10—12c per quart. The cheese factory paid $1.30 in September.—W. R. Matthews.

Des Moines Co., Ia.: Records are now complete for ten months on 20 herds in this association. The average production of the best cow in each herd is 6,539 lbs. milk, 318.8 lbs. fat during the ten months, while that of the poorest is 3,163 lbs. milk, 150.5 lbs. fat. The average feed cost for the first 20 cows is $61.71 and for the latter 20 cows $59.71. The most economical producer in this association is a registered Jersey 5-year-old that produced 6,098 lbs. milk, 366 lbs. fat on $43.76 worth of feed. The most expensive producer is a registered Guernsey 9-year-old that produced 2,371 lbs. milk, 127 lbs. fat on $160.19 worth of feed. The cow with the highest record is not the most economical, nor is the cow with the lowest record the least economical. Jersey, a cross bred Jersey—Holstein 5-year-old, produced 9,378 lbs. milk, 439.5 lbs. fat on $74.42 worth of feed.—C. M. Deem.

Faribault No. 2, Minn.: This association completed six months' work at the end of September. The high cow in the association is a grade Guernsey owned by Lewis Almberg, with 5,939 lbs. milk and 319 lbs. fat. The amount received for this fat was $137.92. The feed cost was $13.11, leaving a net profit of $124.81. Last April two men fed legume hay. This winter there will be six members feeding alfalfa, three clover, and one soy bean hay. Nineteen members have silos; five have milking machines, one of which was installed this summer. Eight members have drinking cups. Two faulty separators were replaced by new ones. One member has put in a new ventilation system and one drinking cups. Members of this association are ordering their mill feeds in carload lots and getting it much cheaper.—J. Welsh.

Iowa Testers Organize

HOARD'S DAIRYMAN:—This year an attempt was made at the Dairy Cattle Congress to establish a more close contact with the testers. The strength of the associations is dependent upon the strength and ability of the testers. The first annual banquet and convention of testers during the Dairy Cattle Congress was of inestimable value to everyone connected with cow test association work.



GUERNSEY HERD OF ED. BAUMBACH

This herd has an average of 335 lbs. fat in the Central Monroe County, Wisconsin, Association. The cow at the extreme right made 402 lbs. fat last year, and for the first two months of present year has made 152 lbs. fat.

One of the veteran testers, Oliver Constable, expressed the consensus of opinion of the testers when he stated at the banquet, "The successful tester must possess dependability, ability to co-operate, a good personality, and a wealth of determination to succeed.

"A meeting of this kind gives a tester renewed faith in his work and a determination to do better work when he returns to his association. I have hoped for an opportunity of this kind for years."

Forty-nine enthusiastic testers, and association members made the first banquet one of the most lively as well as instructive gatherings of the week.

Director R. K. Bliss of the Extension Service gave the principal address of the evening. Others on the program were: Earl Weaver, professor dairy husbandry; Clyde Bectelheimer, secretary of the Iowa Creamery Managers' Association; F. E. Ferguson, field secretary, Iowa State Dairy Ass'n., testers and members of the Extension Dairy Husbandry Department. C. B. Finley, professor of the Dairy Husbandry Extension Service, was toastmaster.

Following the banquet a testers' association was organized with R. C. Munkwitz of the Pioneer Association, Waterloo, as president, Ed. Mathre of Mason City, vice-president, and J. E. Deakins of New Hampton. as secretary-treasurer.

The association plans to hold two meetings the coming year and to handle the annual banquet at the Dairy Cattle Congress.

Iowa. B. ODERKIRK.

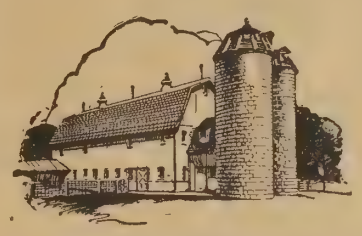
Dairylike Zanzibaria, a Jersey owned by Ayer & McKinney of New York, made a very good showing on her first Register of Merit test when she produced 759.34 pounds fat and 14,978 pounds milk in 365 days as a junior four-year-old.—American Jersey Cattle Club.

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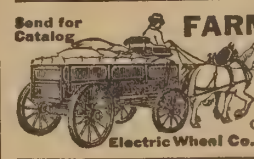
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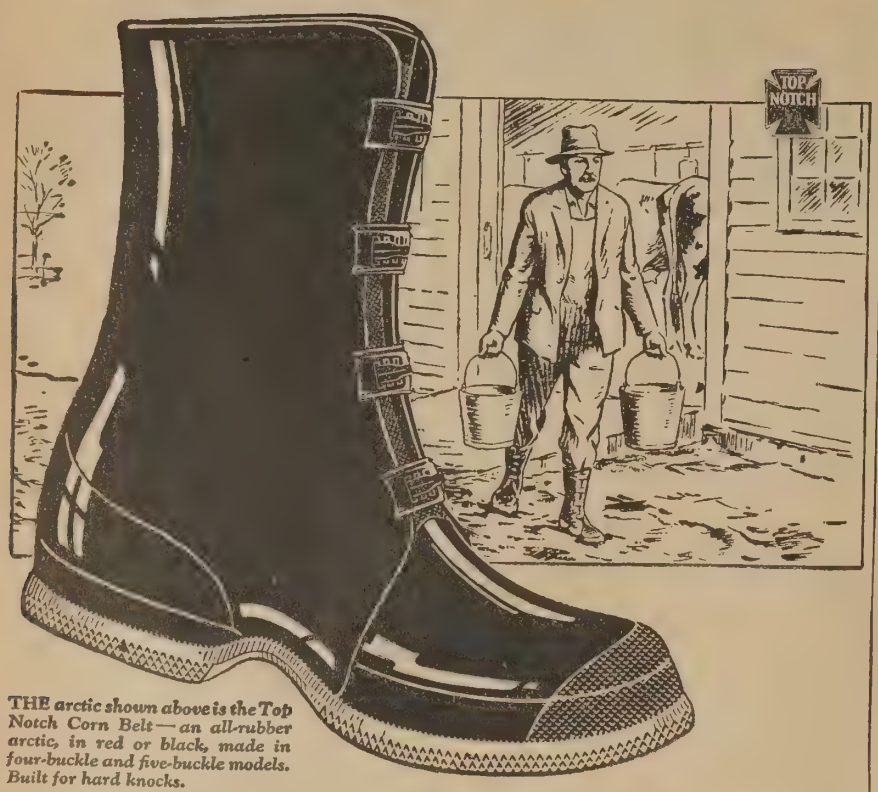


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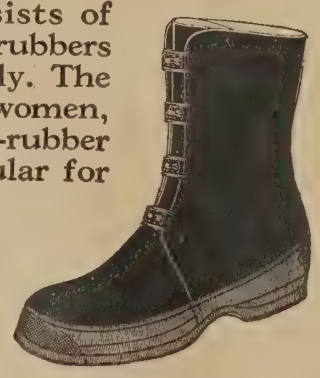
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A GUARANTEE OF MILEAGE

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Wing Comes Back

HOARD'S DAIRYMAN:—In your Oct. 17th issue Mr. Jones from Maine takes issue with some of my thoughts and questions my being a farmer at all. Merely for the purpose of relieving his mind, may I state a few facts?

My father was a New York farmer who came to Ohio seeking more fertile soils and settled in this section a few years before my birth. He reared his family upon Puritanical principles; we were taught to work, to study our Bibles; to honor and obey our parents. He was a skilled farmer and he taught us thoroughly, both theory and practice, in this profession.

He left us 196 acres of well tilled, fertile soil and I have farmed continuously all my life with the exception of five years when my health failed. At present I am handling a little over 500 acres; for years I have started the day at from 4 to 4:30 and among my neighbors I have the reputation of leading an active life. Life has been no kinder to me than to the average man. My early dream of a college education and work as an electrical engineer was shattered when at 18 my health failed and I lost five full years in regaining it.

I was fortunate as many another man is in marrying a true helpmate. I am fortunate to still have her with me.

I was less fortunate when our only daughter, just budding into womanhood, and a child who would be the pride of any parent, went onto the surgeon's table, gayly, obedient to the slightest wish of her parents, and a few moments later went to the Great Beyond, taking much of her mother's heart and mine with her.

I am indeed fortunate in having four children left, little Ben and Joe who are four and six years, respectively, and as sweet as anybody's children. Charles Winston, who is ten, a sturdy boy, resembles his father in being slow in speech and thought, and Gardner, 14, who stands only about an inch below his father, five feet, ten, and has many of his father's traits of character and ambitions.

In business I have had the pleasure of making comfortable amounts of money at times and again of taking losses that were sickening. All of these things, however, I consider as unimportant, except as they might or might not affect my thinking and my theories of life.

From what I have seen, those who actually get the most out of life have suffered deeply, have labored under serious disadvantages, and have been deprived of the ease that money gives. It is this observation that leads me to say that life is mostly what we make of it ourselves. I believe that we appreciate the things around us very largely as we are receptive to the influences with which our Maker has surrounded us.

A few days ago I clipped from Hoard's Dairyman a remarkable and very unusual editorial. It says in part, "Agriculture may be said to include not only the cultivation of the land but the culture of the people who live on land. Wealth may be defined as anything that ministers to the wants and happiness of man and the ownership and possession of which can be transferred from one person to another. Its original sources are the sun, soil, air, water, plants, animals, and labor." Broad and true as this statement is, it seems to me that it should be made even broader. I wonder if I can show you just what I mean. I stood at the edge of the mountain whose top formed our summer range in Utah. Before me stretched a panorama so wonderful that no man could look without a feeling of wonder. First came mighty canyons, mile after mile of them, their north slopes pine and spruce covered, the south slopes dotted with cedar. Farther away were countless smaller canyons, like the waves of the sea when storm threshed. Beyond these the rim of the Book Cliffs, edging the desert, its grey line stretching smooth and regular for many miles from Green River to Castle Gate, in my line of vision. Still beyond was the great San Rafael desert rolling in gentle foothills and draws that looked no more than ditches from where I stood. Across its comparatively smooth surface crept a train, so small that it hardly seemed possible that it was real. As far as the eye could reach ran the desert. On days that were very free from haze a range of mountains, looking like a bank of low hanging clouds, could be seen, a full two hundred miles away.

Many, many times this scene unrolled before me and each time I thought unconsciously, "What hath God wrought?" Who owned this great tract? It happens that practically all of it is so wild and of so little value, as money goes, that it is the property of the U. S. government. That, however, is unimportant; the scene, and all that it means, is indelibly impressed upon my brain, and belongs to me. If you were there we could share it and there need be no jealousy over the matter whatever, for there is enough of it for all. Who owns the blue vault overhead? Who owns the south wind? Who owns the sun's rays that make our planet a comfortable place in which to live? Who owns the rain that refreshes our plants and makes them grow? Who owns the energy that changes cold soil to living plants, and thence to animals? Who owns the birds and flowers? Who owns the brush that today is transforming the leaves from their summer green to garnet, carmine, copper, and gold? Certainly He who planned the world in all its beauty in the beginning does. Intentionally He made it a pleasant place to live with countless things to delight the eye and all the senses.

That being true, and because He placed these things here to carry certain messages to us, are they not mine and yours? Is this not wealth that is not capable of being made private property, certainly not transferable, and all the better that it can not be so?

Actually, is there not far more of wealth in the world in a form that money can not buy than in that which is purchasable? And if this wealth is given freely by our Maker, need we worry greatly over things that we can not buy? The balance is in our favor, because we who live in the country receive more of the limitless blessings than do those who live in cities.

Ohio. CHAS. B. WING.

Pure-breds Do Pay

HOARD'S DAIRYMAN:—No doubt some of you farmers have often heard Mr. D. D. Aitken say that any man with average intelligence can buy a pure-bred cow and that she will pay for herself in three years.

Otto Wenger, association tester on the Aitken farm, has found that Mr. Helms, who is manager of the Aitken farm and also owns a pure-bred herd of his own, did in his first venture in pure-breds buy one cow which paid for herself in three years. Below is the story of the performance of this cow.

Mr. Helms purchased Queen Vale Mercedes Burke De Kol five years ago when she was three years of age, and since that time she has produced four daughters and one son, and she also has two grandsons and five granddaughters.

He sold the son when he was one year old for a sum equal to the purchase price of the original cow and also sold two daughters and two



QUEEN VALE MERCEDES BURKE DE KOL

grandsons, making a total of $905 received from the sale of offspring from this one cow. Two daughters and five granddaughters are still retained in the herd.

Queen Vale Mercedes Burke De Kol produced under semi-official work 23,225 lbs. of milk containing 655 lbs. fat in one year. She was the leading cow in milk production in Genesee No. 3 C. T. A. for the year 1923.

All of her daughters to freshen have made short and long time official records. One daughter, Mary Jane Segis De Kol, at the age of 3 years being the leading cow of all classes in butterfat for the year 1923 in Genesee No. 3 C. T. A., produced 17,874 lbs. milk with 551.5 lbs. fat.

Another daughter, White Mag Mercedes Pietertje, was the leading cow of the two-year-old class in Genesee No. 3 C. T. A. for the past year, having a record of 15,225.9 lbs. milk and 505.3 lbs. fat in 365 days. She also has a 21-lb. 7-day record.

The two daughters mentioned above and the five granddaughters still owned by Mr. Helms are from sires up to and above 1,200 lbs. of butter in one year, one being sired by Maplecrest Korndyke Hengerveld, Mr. Aitken's famous old century sire, and two by Prairie Maid Prilly Lad, a bull of real merit having a 1,200-lb. dam and a 1,100-lb. sire, owned by Mr. William McCully, Dr. A. Z. Nichols, and Mrs. Clement of Hillsdale. This bull, his owners will tell you, proves the virtue of groups of farmers buying a sire together, thus making it possible for them to have the use of an exceptional sire.

Michigan. OTTO WENGER.

Edgerstoune Ayrshire Wins Silver Medal

One, two, three, four, and Nether Craig Bright Jean makes the fifth straight silver medal winning for the daughters of Hobsland Lucky Boy at Edgerstoune Farm, New Jersey. "Bright Jean", as a junior three-year-old, in 300 days has produced 11,696 lbs. milk, 505.55 lbs. fat; dropping a living calf which was carried 202 days of the test period. She becomes the fifth highest Ayrshire of her age in the Roll of Honor, thus qualifying as a silver medal cow. As a two-year-old at the 1923 Boston Show, Eastern States Exposition, and the National Dairy Exposition, she stood first, third, and fourth respectively.

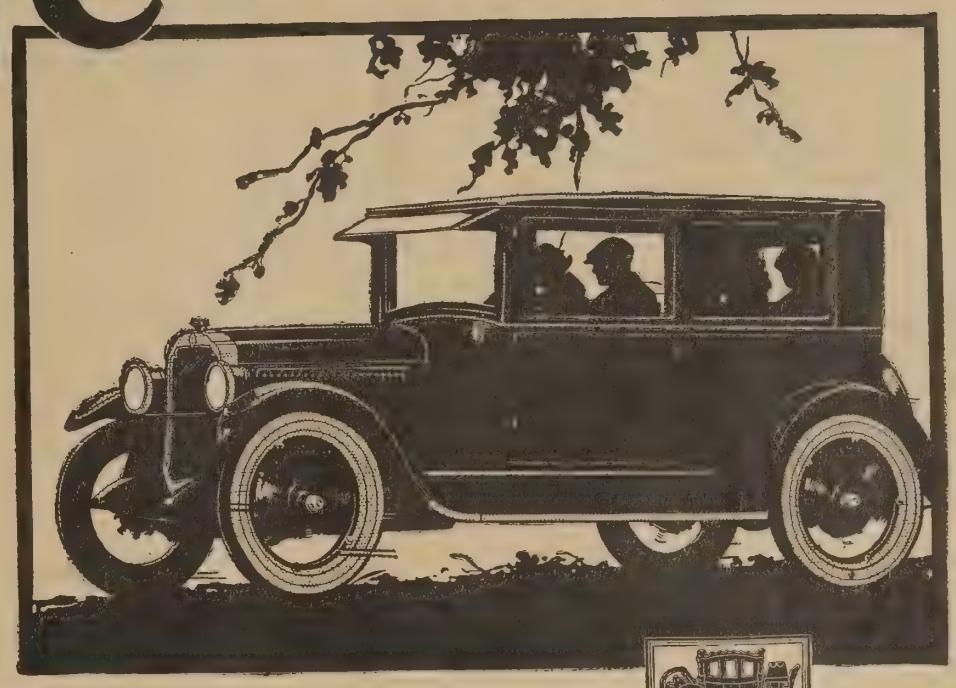
The "Lucky Boys" during the past few years have been consistent winners in the show ring in Scotland and America. Of the get of Hobsland Lucky Boy, six sons and fourteen daughters are recorded on the Ayrshire Breeders' Association files as prize winners. Included in the winnings are four grand championships, one reserve champion, one junior champion, and twenty-four firsts. Among these is last year's National grand championship on bulls won by Hobsland Lucky Star.

Coupled with this outstanding showyard record is the performance of Lucky Boy's first five daughters tested in America, all tested with first calf. All silver medal winners!

The average production of these five sisters with first calf is 12,989 lbs. milk, 526.31 lbs. fat. Separating the Roll of Honor and the Advanced Registry records the averages are more comparable due to the difference in length of test period. Three Roll of Honor (300 days, with calf) records average 11,680 lbs. milk, 472.37 lbs. fat. Two Advanced Registry (365 days) records average 14,952 lbs. milk, 607.21 lbs. fat.

These five Ayrshire cows have all been tested at Edgerstoune Farm.—Ayrshire Breeders' Association, Vermont.

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EDITORIAL COMMENT



A. D. LYNCH, director of the dairy marketing department of the Illinois Agricultural Association, hits the farmer who keep poor cows when he says: "The farmer who has cows not worth the milking, and who sells milk from such animals in competition with that of efficient cows, is guilty of unfair trade practice and is largely responsible for the present surplus of dairy products. Dairymen who flood the market with milk of 'boarder cows' are unfair and unwise business men because they cut prices for other producers in addition to their own self-inflicted personal loss."

THE WILL TO CO-OPERATE

G. Harold Powell, formerly general manager of the California Fruit Growers' Exchange, has said of co-operative marketing organizations: "A co-operative organization, if it is to be permanently successful, must grow out of economic necessity and must crystallize around a specific economic question. The reason for its existence must lie in some vital service which it is able to perform if it is to have strength enough to live in the face of the competition to which it will be instantly subjected. It will have to compete with existing organizations and this competition will be directed towards its elimination.

"The co-operative spirit must grow slowly. It is, in fact, a point of view, and the farmer acquires it as a permanent conviction only when it comes to him, step by step, out of the abundance of his own experience. Fairness, the absence of jealousy, mutual confidence, and loyalty are fundamentals in successful co-operation—and the will to co-operate must dominate the membership."

IMPROVING SWISS CHEESE

The Bureau of Dairying some years ago undertook to perfect a plan of manufacturing Swiss cheese. Various cultures were studied for the purpose of determining if it were not possible through science to develop a more accurate process of manufacturing Swiss cheese than is being so generally followed. The heavy losses sustained by producing more seconds than firsts, and even lower grades than seconds, inflicted heavy losses upon the Swiss cheese industry.

A considerable number of Swiss cheese factories are now using this new process of manufacture and are obtaining better results than under the old process of making Swiss cheese. There are so many conditions confronting the Swiss cheese maker that the process has not worked out so it is one hundred per cent accurate, but it has been the means, when properly used, of increasing the percentage of high quality cheese made.

In this year's National Dairy Exposition the first prize Swiss cheese was manufactured by using modern cultures and from clarified and standardized milk. This first prize cheese scored 98, which is exceptionally high. We cannot reasonably expect that all cheese manufacturers, even by cultures, will score this much, but we do believe through the use of cultures and this improved system of making Swiss cheese, there will be a higher percentage of first quality product. This will mean a return to the Swiss cheese industry of many dollars and will lead to an increased consumption of Swiss cheese.

DAIRY BIGGEST INDUSTRY

K. L. Hatch of the Wisconsin College of Agriculture made the following statement before the National Dairy Cattlemen's Conference held in Milwaukee October 1:

"Let it be understood at the outset that there is no uncertainty about the future of the dairy industry. It is the biggest business in America today involving more capital, more manufacturing plants, more human units, than any other single industry. The returns from this industry to the farmers alone who are engaged in it, amount to more than two and one-half billion dollars a year. When we take into consideration the capital involved in farm investment, in cattle and barns, in factories and plants, in machinery and equipment, and apportion these between the various farm and industrial enterprises involved, it soon becomes apparent that dairying is easily the nation's paramount business."

Since it has been so closely demonstrated by scientists everywhere that good milk is essential in the diet of human beings, it fixes for all time the permanency of the dairy industry. It has been known for ages that milk is an important food, but we did not have a flood of testimony from scientific sources to prove just how essential it is. Not only is milk an important food, but the crops grown for the nourishment of cattle, such as alfalfa, clover, and legumes of all kinds, are great soil builders. We have then two outstanding factors—milk, an indispensable food for all mankind, and a group of plants essential to building a permanent system of agriculture. Put in another way, we have milk to nourish our bodies properly and legumes to feed properly our soils. Is it any wonder that the dairy cow fills such an important part in the welfare of the nation?

URGES LARGER CONSUMPTION OF MILK

In a recent address before the American Dairy Federation, Dr. Lee K. Frankel, vice-president of the Metropolitan Life Insurance Company, in substance said:

"Milk is the most important single food in the dietary and no other food contains so much nourishing substances. Milk is particularly rich in lime and the deficiency of lime in the human body is responsible for many diseases."

Dr. Frankel stressed the importance of advertising the food value of milk. We believe the dairy industry should fully understand what this big company is doing in teaching the people of the nation to consume more dairy products.

Some months ago we gave mention to this company carrying on a national advertising compaign in behalf of the food value of milk. This campaign was carried on for business reasons, as the Metropolitan Insurance Co. is satisfied that people who consume dairy products are healthier and will live longer than those who eat sparingly of, or do not eat any, dairy products.

Dr. Frankel informed his dairy audience that he was looking for more information concerning the food value of milk to supply his 20,000 agents who are visiting two and one-half millions homes a year. What a mighty force is 20,000 men for advancing the use of dairy products! This should be a challenge to the dairy farmers everywhere throughout our broad land and lead them to produce nothing but high quality milk. It is a remarkable testimony to milk when an outstanding company will spend thousands of dollars attempting to teach its policy holders to consume more milk.

MANY FEEDS FOR HOGS

Recent investigations show that the combination of certain feeds for cows or hogs or other types of farm animals is an important matter for the feeder's consideration. It is possible to combine two feeds that do not supplement each other well and have poor results. On the other hand, we know that a combination of certain feeds is advantageous. One seems to help the other, or at least provides the elements of nutrition which one feed or two feeds may lack.

For instance, it has been found at the Wisconsin Experiment Station, and reported by Professor F. B. Morrison, that a ration containing yellow corn, tankage, linseed meal, and chopped alfalfa hay is more efficient than corn and tankage. Hogs receiving corn and tankage gained less than a pound per day, while those receiving yellow corn, tankage, linseed meal, and chopped alfalfa gained 1.15 pounds. As Professor Morrison has stated, this difference in daily gain means that the pigs fed this new ration reached the market rate of 200 pounds in 29 days before those fed the old ration of corn and tankage. Feeding this combination, therefore, saved one month's labor in feeding and caring for the pigs and also the feed bill for one month.

We still have men who think that corn is about all the hog requires to produce proper gains. Corn and skimmilk, when fed at the rate of 3 pounds of skimmilk to one pound of corn, provide a most excellent combination. A little corn, skimmilk, and alfalfa hay provide a good ration for brood sows. In short, it has been found in recent years that the pig will utilize several feeds and make better gains than when limited to but one or two kinds. Alfalfa is valuable for the hog because it supplies mineral matter in abundance, and we have learned in the past few years that mineral substances play a greater part in economic gains than we anticipated.

BREEDING FOR TRUE DAIRY TYPE

Slowly but surely is the human mind evolving more accurate and definite ideas concerning the right breeding of dairy cattle. One writer puts the question as follows:

"We must constantly and unceasingly breed for our best conception of the dairy type and form."

It is a good statement and sensible. Men do not see things alike. They do not have the same concept of the dairy form. There will be differences of ideas and as a consequence they will breed these differences into their cattle. Such is the diversity that Nature is constantly establishing.

But in the main a nearer approach is had to the great central truth of form, if we follow the writer's idea—breed to "our best conception of the dairy type and form". If we do our best, breed to the best, select the best, then reinforce by bestowing our best care and feed, we will constantly come nearer to perfection.

Some men are only breed breeders. Be it Holsteins or Jerseys, Guernseys or Ayrshires, they can see nothing but the perpetuation of the breed. They are simply breed partisans. The breed covers everything, is everything to them. There is no well grounded plan or system of action with such men. They are blindly doing the work of the blind.

But the problem means more than breed to the true breeder. What he is after is a knowledge of principles, those somewhat hidden and ever mysterious laws, whereby the greatest harmony and adaptability of form to purpose may be secured. Two things he sees clearly: (1) That the dairy purpose or function can be enlarged and established by a wise system of procreation. (2) That as that function becomes more perfectly established, the more clearly defined becomes the dairy form. In the main, and by a large majority, does this hold good in all breeds of dairy cattle. But in between these two great landmarks lies a territory still full of mystery and misunderstanding, full of all manner of foolish notions and unwise conceits.

If breeders of dairy cattle would become better students of the physiology of the dairy function and see more clearly than they do the intimate connection between type and form, and the best expression of the desired function, we believe there would be fewer failures in the breeding of dairy cattle.

All any breeder can hope to do in his short life is to produce a high average in his cattle. It is the bull that will beget the largest number of high average cows that he should strive to produce. There should be no aim to produce phenomenal cows. If they come, so be it, but it is too much a game of hazard.

Three hundred pounds of fat a year per cow is still a very high average in the breeding herds of dairy cattle in this or any other country.

We must fasten our eye more steadfastly on the question of the true dairy type and form and be guided by the laws and conditions that govern in this realm.

Questions Concerning the European Corn Borer

One of the most important insect pests in Ohio at the present time is the European corn borer. Recognizing it as a major pest, the Department of Entomology began work in the spring of 1923, hence our studies of the insect have extended over one season only. In the light of the information thus gained, as well as that obtained from other sources, the writers answer some of the questions commonly asked by corn growers.

What is the European corn borer? It is an insect that prefers to feed on corn. It eats practically any part of the corn plant above ground, but more particularly the pith of the stalks. It will probably prove to be the most destructive corn insect.

Where did the European corn borer come from? Europe is the native home of this insect. It was introduced into North America through commercial agencies. The first borers brought into the United States are thought to have been in broom corn imported for manufacturing purposes.

When did the insect come? The European corn borer was first found in the United States in 1916. In 1920 severe losses occurred in Canada. The following year (1921) the insect was discovered in Ohio. Without doubt the original infestation in Ohio came from moths, which, aided by favorable winds, flew across Lake Erie from Canada.

How rapidly is the insect spreading in Ohio? Due to the co-operation of the Federal Bureau of Entomology, we have definite knowledge that the pest is spreading.

Is the infestation becoming more severe? The maximum infestation found in Ohio in 1922 was one per cent, or one plant in one hundred. The maximum found in 1923 was seventeen per cent. Without question the insect increased enormously in numbers during the last season.

How does the European corn borer spread? This pest spreads by natural flight of the moths and by artificial means. The spread by natural flight can not be checked. The spread by artificial means, such as the transportation of infested corn by automobiles, wagons, etc., is checked by quarantine measures. The efficiency of quarantine measures is, of course, largely proportional to the co-operation by the public.

Where does the heaviest infestation occur in Ohio? The most severe infestation in Ohio was found by federal workers in Lucas County just east of Toledo.

Is the insect doing commercial damage in Ohio? No commercial losses have resulted. The average infestation in the infested territory is still less than one per cent.

How does this pest injure the corn? We have already said that it feeds on all parts of the plant above ground. Its chief injury, however, is generally the result of its feeding upon the pith of the stalk and shank or in the ear. If the borers are sufficiently numerous, the pith may be almost entirely consumed, thus leaving the stalk practically hollow. As a result, the food supply of the ear is not only cut off, but the stalk is likely to be broken over by winds. In either case there is a loss If the food supply is cut off, the ear will be more or less chaffy. Should the stalk be broken over, the ear and perhaps the whole stalk will lie on the ground where they will tend to spoil or decay In sweet corn grown for the market the presence of worms or larvae under and in the husks or in the cobs makes the ears unsalable.

Will the European corn borer stop the growing of corn? No. However, it is safe to predict that it will reduce the yield and perhaps the acreage. The communities or counties that follow the recommended control measures most intelligently will suffer least.

Where do the borers come from and how do they get into the corn? The moths appear in the corn fields about the middle of June. Each female lays 300 to 400 eggs. The eggs hatch in about a week. The young worms or larvae begin to feed at first upon the leaves and tassel, but later they begin to bore into the stalk. These larvae continue to feed through July, August, and September, and at the end of this period have become full grown. The larvae live in the cornstalks all the winter, even zero weather apparently does not affect them. About the first week of June they change to the pupal stage while still in the stalk. In a week or ten days the moths emerge from the pupal case and crawl out of the stalk to begin a new generation. In Northern Ohio there is only one generation in a year.

Does the European corn borer feed on other plants? In Massachusetts, where there are two generations a year, this insect has more than 200 food plants. In Ohio it has been found feeding on ragweed, pigweed, and smartweed. Undoubtedly other plants will be recorded next season.

What aid may we expect from its natural enemies? We have no reason to expect any appreciable aid from birds and native insect parasites. The latter parasitized less than two per cent in 1923. Imported parasites will be introduced in 1924.

What insects are most often confused with the European corn borer? The corn ear worm and the common stalk borer are most commonly mistaken for the European corn borer. When in doubt as to the identity of a corn insect, send specimens to the Department of Entomology, but this material should always be killed by dropping it into boiling water for a few seconds or into denatured alcohol. Living larvae must not be sent through the mail.

What control measures are advised? Let it be remembered that control measures now advised are only tentative. At present the most important recommendations for Ohio are as follows:

If all the corn fodder in Ohio could be shredded or made into ensilage, the corn borer problem would be greatly simplified. Those who follow these practices will do well to continue them.

It has been found that if infested stalks are plowed under in the late fall the borers will perish. Those who find it possible to employ this method should do so. For the greater part of Ohio, however, it will prove impractical with present farm practices.

At the present time it is apparent that the most practical as well as the most efficient measure is burning the stalks. Stalks left in the field, refuse stalks around feed lots, etc., should be burned. When? Before June 1. Why? To destroy the borers before they become moths and thus escape. Or, better still, this burning should be done at a time designated by men in charge of clean-up campaigns.

Investigation in Ohio has shown that a great many borers are left in the stubble in the field. It has been further observed that the longer the stubble the more borers they will contain. Fully 20 per cent of the infested stalks have borers in a 24-inch stubble, whereas only 8 per cent are in a six-inch stubble. The communities that cut corn the lowest and that burn the greatest percentage of the refuse stalks and fodder will suffer least from corn borer damage.

How can corn growers aid in the fight? The corn growers can aid most by keeping themselves intelligently informed concerning the true status of the insect. Efficiency in control will demand county wide co-operation. All growers should be ready to respond at the proper time.—Ohio Experiment Station.

Alfalfa and Sweet Clover Win

A farm management study of southwestern Minnesota farms by Willim L. Cavert and G. A. Pond of the Minnesota Agricultural College brought out the great economic importance of alfalfa for hay and sweet clover for pasture to the dairy farmer. Bulletin No. 89, Agricultural Extension Division, gives the information which is based largely on cost records for the years 1920 to 1923, inclusive, on the average of twenty-two representative farms in Cottonwood and Jackson Counties. The bulletin has the following to say about alfalfa and sweet clover:

"Alfalfa hay has long been known to be one of the very best kinds. In this region the cost of a ton of alfalfa hay was $5.70 and of clover and timothy hay, $8.36. The average yield was 2.2 tons of alfalfa hay and 1.1 ton of clover and timothy. Sweet clover is by far the most productive pasture crop for the region and promises greatly to improve the opportunities for profitable cattle production."

"Whatever the type of cattle produced, two of the chief handicaps in this section of the state have been the lack of high quality legume hay, clover or alfalfa, and a good pasture. However, in recent years it has been found that Grimm alfalfa thrives exceedingly well in this region. Cost records show that alfalfa is both the cheapest hay to produce on a per ton basis and also the most valuable for feed. In addition to the hay, some farms obtain hog pasture from the alfalfa so that the actual net cost is somewhat less than the figure given. At present more than half of the farms of a statistical route depend in part on alfalfa for their hay and the acreage is being rapidly increased. The lack of an abundance of good pasture has been, perhaps, as much of a handicap to profitable cattle production as the lack of a high quality hay. Here and there farmers have discovered that sweet clover, which formerly was feared as a weed because of the luxuriance with which it grew along the roadside and railroads, is one of the most valuable pasture grasses. Fortunately, in most places in central and western Minnesota the soil is abundantly supplied with the necessary element—limestone.

Bad Flavor in Milk

I have been having a lot of trouble all summer with undesirable flavor and odor in milk. The taste is bitter, there is an odor to it, and the cream seems to be sort of coagulated but not ropy. This has occurred at different times when pasture would get short and then would clear up when the cows were turned into fresh pasture. Could it be possible that bacteria are the cause or is it some weed? We took sample tests from each cow and all were affected except a new cow we purchased a month ago. Quite a little sorrel and some mare's tail weeds grew in the pasture but no more than in neighbor's pasture.

Indiana. H. C. M.

The varieties of undesirable flavors and odors in milk may be attributed to one or more of the following causes:

1. The internal or physical condition of the individual cow.
2. Absorption within the body of the cow from highly flavored feeds.
3. Absorption into the milk after production.
4. Bacterial development within the milk on standing.

The fact that all of the cows gave the objectionable flavor and odor at times would tend to eliminate the first cause given as the source of the trouble.

If the milk is handled in a clean, sanitary way from the time it is drawn until it is used, the third and fourth causes could be eliminated. This would involve, however, careful habits of milking, clean, pure air in the barns, milk utensils that are really clean, removing the milk from the barn immediately after it is drawn, possibly aerating it, and either cooling it to 50° F. or less or else pasteurizing it at 149° F. for 30 minutes and then storing it in clean containers at 50° F. or less.

The Dairy Bureau of the U. S. Department of Agriculture did some experimental work at the Beltsville, Maryland, farm which may help you to locate your trouble and which has to do with the absorption of objectionable flavors and odors within the body of the cow.

In this experiment 15 pounds of green alfalfa were fed to cows one hour before milking. Very decided objectionable flavor and odor was produced as compared to the check group. Where 30 pounds of green alfalfa were fed to cows one hour before milking there was a further increase in bad flavor and odor.

Where 15 and 30 pounds of green alfalfa were fed immediately after milking the per cent of objectionable flavor and odor was reduced to almost negligible quantity with very little difference between the two amounts of alfalfa.

Green alfalfa was fed 3 hours before milking but failed to eliminate the flavors and odor but did reduce it slightly as compared to the feeding one hour before milking. However, when the green alfalfa was fed five hours before milking the objectionable flavor and odor was almost eliminated.

Comparisons were also made between milk from the "one hour before" feeding that had been aerated over a cool surface immediately after being drawn and cooled to below 45° F. with the same kind of milk not so handled. By this method they were able to reduce the bad flavor and odor very materially.

By combining the two methods of feeding either five hours before milking or immediately after milking with aeration and cooling they produced milk of very excellent quality.

They also found that feeding 25 pounds of green corn immediately before milking produced a slight tendency to noticeable flavors and odor that was objectionable as compared with feeding the corn after milking but the difference was so slight as to be negligible.

Perhaps the only way that you can determine the source of the trouble is to check up on the methods of handling the milk and if satisfied these are right, then run a check on the cows and the feed by arranging for a non-eating period for five hours previous to milking. Some weed in the pasture may be the guilty party.

If you check up on your methods of handling the milk it will be necessary to sterilize the milk utensils to prevent possible bacterial contamination from one milking to the next. The organism that causes ropy milk will carry over in the milk utensils unless these are thoroughly sterilized.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D HOARD

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EDITORS
A. J. GLOVER, P. C. BURCHARD

General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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Corresponding Editorial Staff:
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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $3.00 including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

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Coming Events

Nov. 12-13—National Co-operative Milk Producers' Federation meets at Detroit, Mich. Secretary, C. W. Holman.

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Dec. 10-16—Pacific Slope Dairy Show, Oakland, Calif.

Mother: Bobby, I'm discouraged trying to teach you etiquette. You never seem to remember.

Bobby: I guess, mother, I'm better at learning forgetiquette.—Selected.

Uniformity of Cheese Not All

HOARD'S DAIRYMAN:—I have read the article entitled "Importance of Uniform Quality of Cheese" in the October 24 number of Hoard's Dairyman. The article aureoles "loaf" cheese in general. As to the importance and desirability of uniform quality in the production of cheese, that must depend upon the standard of quality fixed. A uniform quality of cheese of low standard or of mediocre standard cannot be regarded as either meritorious or desirable. Mere uniformity regardless of the standard of quality may be more detrimental than beneficial. A troublesome fact in this affair is that we have at the present time not less than one-half dozen establishments engaged in producing processed loaf cheese, each claiming a different and superior process in its preparation. This does not spell uniformity. Moreover, there is a goodly number of cheese factories in Wisconsin that are manufacturing "loaf" cheese, employing only normal cheese making methods.

Assuming, as the article in question does, that the pasteurizing of the cheese is carried out within a few weeks of its final consumption it becomes apparent that if processed loaf cheese is "well cured", it must be because it is prepared from well cured cheese, and as you state in your editorial, there is no inconsiderable class that wants only well cured cheese, while still another class wants only slightly cured cheese. It goes without saying that no slogan of uniformity can render the same cheese both well cured and only slightly cured at the same time. The attitude of your editorial is well taken that there is a demand for variety in cheese. The article also claims that pasteurizing always brings out the defects in the cheese. Unless "brings out" is construed as drives out, this contention would seem to refute the widely heralded advertising that the processing in the production of loaf cheese makes good cheese better. So much is revealed in the article about the processes involved in preparing loaf cheese, that the wonder is why the story is left incomplete, why *all* the different kinds of material employed and their respective functions are not disclosed to the public.

It is to be hoped that in a subsequent article all the real and true facts as to the composition of processed loaf cheese will be disclosed. Will the writer of the article deny that either wittingly or unwittingly he has not named all of the constituents of processed loaf cheese?

Wisconsin. J. Q. EMERY.

Jersey Breaks Two Records With First Calf

Oregon is at the record breaking business again, this time using an imported Jersey heifer, Imp. Xenia's Oxford Lilac, to turn the trick. She was bred by Mr. J. S. Bisson of St. John's, Island of Jersey. She was imported in April, 1923, by West & Reid, and was taken across the continent to Portland, Oregon, where she was sold at auction to Harry D. Iliff for $550 on June 21. She was then trucked seventy miles to Independence, and started test on August 1, when two years and four months of age.

In the year following she produced 821.70 pounds fat and 13,122 pounds milk.

This splendid record is the highest one ever made by an Island bred Jersey in this age class, and is, in addition, the highest junior two-year-old Oregon Jersey record—American Jersey Cattle Club.



What the Master Painter used for painting the barn

ANTON RADTKE who lives four miles out of Winsted, Minn., called on his painter friend, Ernest Harper of South Minneapolis, to paint his barn.



Send for "The Farmer's Eagle" —A Guide to Farm Painting

Three hundred pounds of Eagle White Lead in Oil were used to give the barn two coats. The pleasing result is shown above.

What the picture cannot show, but what is even more important, is the durability of the protection that is given the barn by the two coats of good old fashioned white lead in oil.

The qualities that insure this and make Eagle White Lead favored by the Master Painter are developed in the slow sure Old Dutch Process. Eagle takes longer to make, but it lasts longer on the finished job.

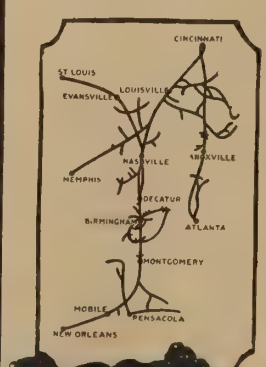
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The L. & N. Railroad is interested in helping dairymen locate in the South, in order to help settle up the country along its track. It has no further interest in any real estate development. It will be glad to give you full information about operating conditions, transportation, markets and so forth in this territory. Write today.

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THE OLD RELIABLE

HENRY C. WALLACE

IN the death of Secretary Wallace, agriculture has lost a capable and faithful friend. He was a son of "Uncle" Henry Wallace who for some years was a preacher, but poor health and a love for things rural caused him to turn his attention to agricultural journalism and at the age of 60 he established Wallaces' Farmer. He was editor of this paper for a period of twenty-one years and after his death his son, Henry C. Wallace, took his place.

Henry C. Wallace was born at Rock Island, Ill., May 11, 1866. He graduated from the Iowa State College in 1891, and from 1892 to 1894 he was professor of dairying at the Iowa State College. In 1895 he was made associate editor of Wallaces' Farmer and in 1916 became editor of that publication. President Harding appointed him Secretary of Agriculture and on March 4th, 1921, took up the duties of that office. He held this position until his death which occurred Saturday, October 25th.

Mr. Wallace was married November 24, 1887, to Miss Carrie May Brodhead and six children were born to them, three girls and three boys.

Besides devoting himself to editorial work and being Secretary of Agriculture, Mr. Wallace was a member of several farm organizations and held offices in several of them. Through these organizations he was placed in contact with the real problems of the farmer. He was reared in town and on the farm, and this gave him opportunity to know the life and work of those who live in the city and on the farm. This experience served him well, particularly when Secretary of Agriculture, for in this position he served both the farmer and the consumer.

Henry C. Wallace had an agricultural mind; he had a deep interest in all farm problems, and a keen desire to make rural life attractive and enjoyable. To gain this end farming must be given the same opportunities as are extended to all other industries and it must be made profitable. His life was directed to bringing about improvement in marketing farm products and in farm practices that would increase the farmer's income. He sought on every occasion to obtain returns for the farmer that would be in keeping with his labor and investment.

The death of Secretary Wallace is a distinct loss to the nation, for his large experience and keen understanding of farm problems made him a useful and capable servant of agriculture.



HENRY C. WALLACE

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The Short Course at the University of Wisconsin which opens November 17th offers excellent training for a man who wishes to specialize in live stock work. The work offered is part of a training which fits a man to become an efficient herdsman, a cow tester, or a manager of a live stock farm.

In addition to a study of the judging, feeding and care of farm animals, work in veterinary practice, farm dairying, farm bookkeeping, and other allied courses are offered.

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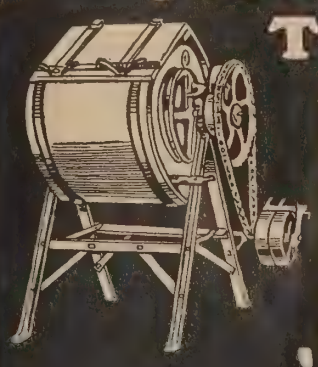
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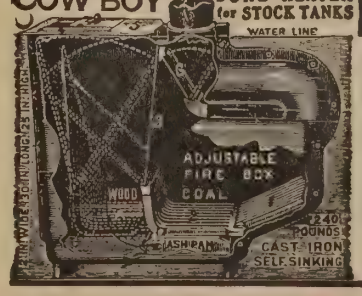
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Fall and Winter Feeding

With oats and hominy still high in price you can save money by feeding your dairy herd one of the following rations:

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300 lbs.	Diamond Corn Gluten Meal	400 lbs.	Buffalo Corn Gluten Feed
600 lbs.	Bran	500 lbs.	Bran
100 lbs.	Oilmeal	100 lbs.	Oilmeal
1000 lbs.	(25% Protein)	1000 lbs.	(20.6% Protein)

Feed No. 1 if your roughage is timothy or mixed hay; No. 2 if you have much clover or alfalfa. Feed a pound of either ration to 3 lbs. of milk if your cows are Jerseys or Guernseys; a pound to 4 lbs. of milk if Holsteins or Ayrshires.

Each ration is productive, economical, easy to mix, safe to feed and palatable. Each will give you as much milk for less feed cost. You can prove it by keeping records of feed consumed and milk produced.



23% Protein

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Corn Products Refining Co.
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40% Protein



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Feeding the Dairy Calf

(Continued from page 497)

als which undoubtedly causes death. Eckles of the Minnesota Station found that water-soluble vitamin B in the form of yeast and of antiscorbutic vitamin C in the form of orange juice was without effect when calves were fed a sole diet of milk. However, the addition of calcium carbonate appeared to relieve the abnormal condition within a short time.

Vitamins for Calves

In a discussion of the various factors which must be considered in preparing a balanced ration for growth and milk production, the importance of the vitamins was pointed out. Whole milk has been found to be a balanced food for growth as would be expected from the fact that it is the natural food for young animals. When skimmilk or other substitutes are fed in the place of milk, the question arises as to the vitamins supplied in the substitutes. Fortunately, the leguminous roughages contain an abundance of the vitamins found in milk fat and can take the place of the valuable fat as soon as the calves will eat hay and grain. Feeds low in fat soluble vitamin A, such as skimmilk, whey, white corn, and linseed meal when supplemented with alfalfa hay, have proven entirely satisfactory. Water soluble vitamin B is present in sufficient amount both in roughages and grains. That an abundance of this vitamin is present in ordinary rations, was demonstrated in an experiment at the Minnesota Station. One-half of the pure-bred calves born in the dairy herd received yeast (rich in vitamin B) daily until six months old and were compared in growth and health to the others. No difference between the two groups could be seen.

Bone development in growing animals would undoubtedly be aided by the presence of vitamin D which assists in the assimilation of calcium and phosphorus. This vitamin is found in abundance in leguminous hay properly cured and pasture grass. If other types of roughages which are low in calcium or phosphorus are fed, one-half ounce daily of bone meal, ground rock phosphate, wood ashes, slacked lime, or chalk should be fed. Salt and water at will should never be neglected.

Changing to Skimmilk

As soon as the calves are able to eat hay containing the vitamins, the whole milk may gradually be replaced by skimmilk at the rate of one pound per day. This substitution can usually be completed by the time the calf is three or four weeks old. If during the gradual change to skimmilk the calf goes off feed or scours, the feed should be reduced and no further change made until back to normal. Slightly larger gains can be made with whole milk as shown in trials at the Kansas and Indiana Stations, but the butterfat is too valuable to feed under ordinary conditions. To keep the "bloom" on show calves, they are often fed whole milk until one year of age or more.

As fat is an energy feed, the skimmilk should be supplemented with carbonaceous or energy feeds rather than high protein feeds. The following comparison between the composition of whole milk and skimmilk emphasizes the fact that additional protein feeds are not required:

	Whole milk %	Skimmilk %
Water	87.10	90.50
Fat	3.90	0.10
Protein	3.40	3.57
Sugar	4.75	4.95
Ash	0.75	0.78

Early investigators tried to substitute liquid fats for butterfat but the superiority of these calves over calves fed grains was not sufficient to warrant the use of comparatively high priced fats or oils.

Experiments have shown that the farm grown grains are excellent supplements to skimmilk. Ground oats and corn meal were fed at the Iowa Station, kafir meal at the Kansas Station, and barley at the Virginia Station with good results. Ground carob pods as well as beet pulp were fed successfully at the California Station, to supplement skimmilk. The choice of grains will depend upon the market price. It has been shown at the Nebraska Station that when skimmilk is fed liberally during the first six months that light feeding of either corn or mixed grains with alfalfa hay produces as good gains in weight as those fed more liberally.

As weaning time approaches, the corn or other grain should be supplemented with other feeds such as oats, wheat bran, and linseed meal. A very popular grain mixture for calves and heifers consists of corn meal 3 parts, ground oats 3 parts, wheat bran 1 part, linseed meal 1 part.

The Iowa Station recommends the following mixtures: Corn 5 parts, oats or bran 3 parts, and oil meal 1 part; and oats 3 parts, bran 1 part, and oil meal 1 part.

At the Missouri Station the following grain mixture is fed: Ground corn 2 parts, whole oats 2 parts, wheat bran 1 part, oil meal 1 part. If only a limited amount of skimmilk is available one of the mixtures containing considerable protein may well be fed to supplement the milk.

Self-feeders for Calves

The free choice system of feeding swine which has been found successful, does not appear to be adapted to calf feeding. In a trial by McCandlish of the Iowa Station, self-fed calves showed a preference for unground grains but consumed a ration containing a large amount of oil meal. The nutritive ratio 1:3.5 is narrower than that recommended by the feeding standards.

Nevens at the Nebraska Station also tried the self-feeder. In addition to the grain, two parts of alfalfa meal were added to the mixture to increase the bulk when the calves were three months old. Skimmilk and alfalfa hay were fed in addition. While the self-fed calves consumed large amounts of feed, the average daily gain was 2.34 pounds. It is believed that by properly mixing grain with alfalfa meal or other cut roughages, calves could be grown to maturity at a minimum labor cost, a reasonable feed cost, and without any injury to the dairy qualities of the calves.

Sour Milk

While it has been thought that sour milk will produce indigestion, trials by Woodward of the U. S. Dairy Division indicate that this is not true. He states that in no case did rapidly soured milk cause digestive disturbances, even when the change from the sweet to sour was made abruptly and with calves only a few days old. While it is not as palatable as sweet milk, good gains were made. He concludes that dairymen might just as well let the milk for calf feeding become sour during the summer months instead of going to the trouble and expense to keep it sweet. While milk soured by pure lactic acid bacteria is probably not harmful, the possibility of dangerous types of bacteria developing at the same time makes the practice questionable.

Eckles points out the importance of feeding either sweet or sour milk and not sweet milk one day and sour milk

the next as young calves are sensitive to violent changes.

Pasteurized Skimmilk

When skimmilk is obtained from creameries, it should be pasteurized to kill all disease-producing bacteria. This precaution will lessen the danger of spreading tuberculosis and also infectious scours among calves. Feeding trials have shown that pasteurized skimmilk is equal to unpasteurized skimmilk for calves.

Dry Skimmilk and Semi-solid Buttermilk

Dried skimmilk powder when dissolved in nine parts of water forms a product which has been found equal to skimmilk for calf feeding. It is rather expensive and sometimes difficult to obtain in small lots. As compared to feeding whole milk, skimmilk powder will make 100 pounds of feed at about one-half the farm price of the former.

Condensed or semi-solid buttermilk has also proven successful as a skimmilk substitute. Woodward of the Washington Station fed from 1.25 pounds at three weeks to 4 pounds at three months diluted in warm water at the rate of five pounds at a feeding regardless of the quantity of condensed buttermilk dissolved in it.

Whey

Whey is low in protein but contains considerable milk sugar which is of value. Humphrey at the Wisconsin Station recommends that if whey is used for calf raising, it should be sweet and clean and fed at about the temperature of freshly drawn milk. Each patron of a cheese factory should have special cans and have them filled directly from the cheese vat. It should be fed only after the calf has been well started on whole milk.

Otis of the Kansas Station compared whey with skimmilk as a feed for calves. In the early trials the whey-fed calves gained very poorly. Later by replacing alfalfa for prairie hay and using a grain mixture composed of kafir corn and sifted oats, thrifty, healthy calves were raised. It appears that success in using whey will result by the careful selection of supplementary feeds.

Oil meal or other high protein feeds are needed in the grain mixture to supplement whey due to the low protein content.

Diluted Whole Milk

At the Connecticut Station, White and Kuelling compared the value of whole milk diluted with water and skimmilk. The milk was diluted with 75% of water. They conclude that while diluted whole milk proved more expensive than skimmilk, the gains were produced at a price low enough to warrant the practice on farms where whole milk is sold since it eliminated the investment in a separator.

Miscellaneous Feeds

Molasses. The feeding of blackstrap molasses to young calves was tried by Calloway of the Louisiana Station. The molasses was fed on the grain as soon as the calves would begin to take grain—one or two ounces at each feed. The molasses was gradually increased until at six months of age two pounds were being fed. It was found that sugar-cane blackstrap, except in excess, was not laxative when fed with grain. It is nutritious, a good appetizer, and tends to make the grain more palatable.

Silage. The desirability of feeding corn silage to dairy calves at an early age was tried by White and Kuelling of the Connecticut Station. The calves were allowed silage as soon as they would eat it. They conclude that feeding silage before two or three months of age is not desirable as it widens the ration and increases the chance of scouring. Later, silage was relished and forms a good feed for calves.

Cottonseed Meal. Due to the toxic or poisonous properties of cottonseed meal it cannot be fed safely to calves until they are six or eight months old. It may then be gradually fed up to two pounds per day. Other protein concentrates such as linseed meal are to be preferred, however.

Feeding Whole Grain. An experiment conducted at the Michigan Station by Shaw and Norton shows that it is not necessary to grind grain for calves. The following table shows the small amount of grain which passed through the digestive tract of the calf as compared to that passing through the digestive tract of heifers and cows:

Proportion of Grain Eaten Recovered in Feces

	Whole corn recovered	Whole oats recovered	Equal parts whole corn and oats recovered
	%	%	%
Cows	22.76	12.06	26.45
Heifers	10.77	5.48	17.50
Calves	6.28	2.98	5.78

That calves prefer whole grain to ground grain was also shown in a study by McCandlish of the Iowa Station. He offered corn both whole and cracked and oats both whole and ground in a study of the "free choice" system as applied to calves. Very little of the ground corn or oats were eaten. Another manifestation of an aversion

(Continued on page 530)

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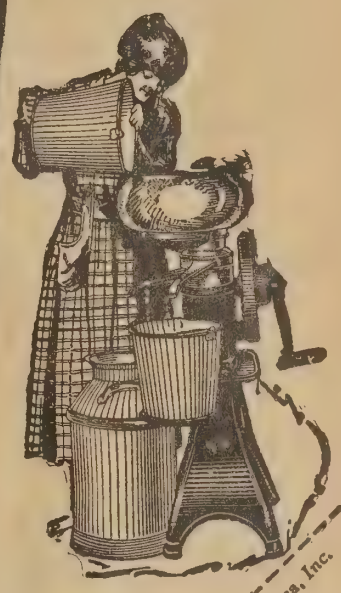
Ask your local dealer to demonstrate this easy-running, close-skimming, long-lived BALL-BEARING machine to you. Even if ready cash is not plentiful, you need not hesitate. Pick out your McCormick-Deering Primrose (there are five sizes), then ask the dealer for his liberal terms—you have 12 Full Months to Pay!

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writes one recent purchaser of a McCormick-Deering Primrose. His experience is typical. Think of it! The machine pays for itself in the butterfat it saves. You cannot afford to be without the convenience and economy of the World's Easiest-Running Cream Separator. Talk to your local dealer, or mail the coupon today.

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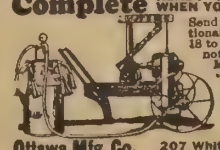
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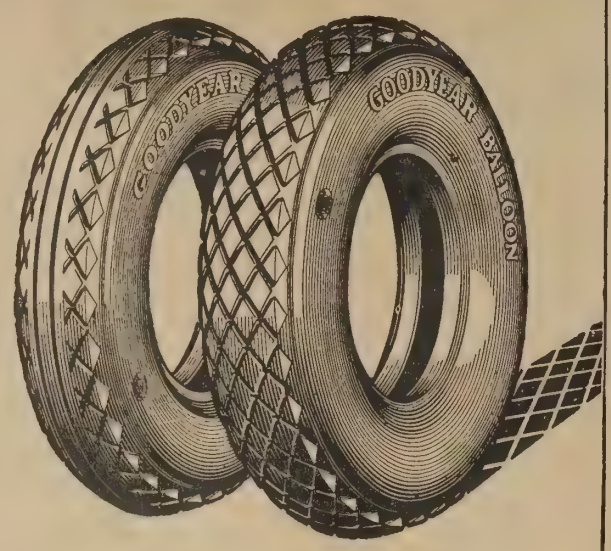
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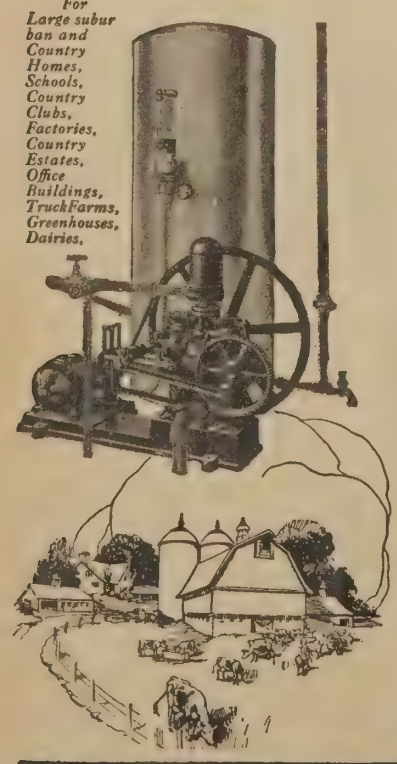
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The dairy farmer without an adequate supply of running water is fighting a losing battle.

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When Writing to Advertisers, Please Mention Hoard's Dairyman

Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

WASHINGTON, D. C., OCT. 28—The unexpected taking away of Secretary Henry C. Wallace has left a feeling of profound regret and sadness among the agricultural workers in Washington, both in and out of the Department. He was recognized as the most farmer minded man who ever sat at the head of the Department or in a President's cabinet. There is no doubt in the minds of those who knew him well—your correspondent feels that he can class himself in this group—that his death was as much a death at the post of duty as was the death of a soldier in the trenches. He gave his life to the service of the Department and its work for agriculture, and he literally gave his life for this service. His critics, there are a few, were critics of minor details of administration, never of the sincerity of his mind or his heart and their relationship to his work. If there is an exception to this statement the exception of itself classes the critic as either not honest with himself, or else willingly at fault in not knowing the facts before making the criticism. The problems of the administration of the Department and the problems of personal adjustment of official relations into a somewhat discordant atmosphere in the President's cabinet, of assisting agriculture and at the same time meeting and adjusting friction from antagonistic views and antagonistic policies, were the elements of a burden which wore out the secretary's physical vigor. His death leaves a vacancy in a position, and at a time of stress, hardly less serious than when he assumed the position. The funeral Monday at the White House was very largely attended by diplomats and high government officials. Assistant Secretary Gore returned immediately to the Department and is acting secretary until an appointment is made by the President. Acting Secretary Gore, and a number of department officials, and Secretary of the Interior Work, as the personal representative of the President, accompanied Mrs. Wallace and the funeral party to Des Moines, Ia., where the services of interment were held on Wednesday.

There is much talk of the possibility of Ex-Gov. Lowden, president of the American Dairy Federation, being named as successor to Secretary Wallace. It seems to be conceded that Mr. Lowden can have the appointment if he indicates his desire for it. At the same time Washington gossip veers to several others as more likely to be named and accept, including Governor Hyde of Missouri; L. J. Taber, Master of the National Grange; Samuel Adams, former president of the Agricultural Editorial Association; W. L. Dickenson of Iowa; and some others.

Corn Disease Problems

The Illinois Agricultural Experiment Station has just recently issued a bulletin dealing with corn disease problems. The title of the bulletin is: "Corn Root, Stalk, and Ear Rot Diseases, and Their Control Through Seed Selection and Breeding."

The corn root, stalk, and ear rot diseases are a group of diseases seriously affecting the corn crop. In general most of these diseases cause a reduction in field stand, a reduction in health and vigor of surviving plants, and a reduction in both yield and quality. They may cause a yellowing of the leaves, delayed silking, and pollenation, firing, and a general blighting of the plants, lodging, barrenness, and a nubbin production in various forms. The authors feel that where inferior and infected seed is used, losses to the corn crop from disease, including smut and rust, can very conservatively be placed at 20 per cent.

The bulletin is illustrated throughout with very fine reproductions of comparisons. It will make a very valuable addition to the library of the careful student of corn culture. Write to Illinois Agricultural Experiment Station, Urbana, for Bulletin No. 255.

Missouri—Kansas Songs

On Wisconsin, On Wisconsin
With your dairy cow,
We are here to visit you, so you can tell us how.
Oklahoma, Missouri, Kansas wish you all success,
Here's a health to all your hospitality.

Holstein standing in a clover field,
And it ain't going to do no harm,
You milk her in a ten-gallon pail
To irrigate your farm.

Chorus—Oh, it ain't going to rain no more.

The Jersey cow is a cow so fine,
To give you butterfat;
But the milk she gives from morn till night
Won't feed a big tom cat.

The Guernsey cow with her yellow milk,
Is a cow that is mighty fine,
If you want to build your bank account
Get into the Guernsey line.

Tune—"It Ain't Going to Rain No More".

We've seen your barns and silos,
We've seen your skies so clear,
But tell the world we won't go home
Till we get that glass of beer.
(Tune—It Ain't Going to Rain No More.)

I'm forever boosting Holsteins,
I mean the black and white;
They look so fine, give milk sublime,
And win the ribbon every time.
My fortunes always growing
They fill the pail so full.
I'm forever boosting Holsteins,
Yes, the good old black and white.
(Tune—I'm Forever Blowing Bubbles.)

They Go Together

Willie Willis: Pop, what is a mortgage?

Mr. Willis: Oh it's something that comes with an automobile, my son.—Good Hardware.

Says Sam: Good books stir a man's mental circulation more than ever these cool fall evenings.



FERN OF GLENVILLE

Marlboro County, South Carolina, has long been considered one of the banner cotton producing counties of the South. The cotton crop was the only source of agricultural wealth in the county, and Marlboro produced more cotton than any other county of similar area. Such was the situation when the cotton boll weevil invaded the area, and it became plain that diversification was necessary if farm values were to be maintained.

In July, 1917, C. S. McCall, Marlboro Co., bought his first pure-bred Guernsey. He attended a sale at Burkeville, Va., and bought the cow, Fern of Glenville, paying $190 for her as a senior yearling.

She freshened with her second calf in January, 1920, and Mr. McCall placed her on test—the first cow he had ever tested. She made a class DD record of 8,657.3 pounds of milk and 470.49 pounds of butterfat. At the end of this test, she was started again, and finished a class B record of 12,628.2 pounds of milk and 693.67 pounds of butterfat.

With her next calf, she started so well that it was decided to give her another chance to make a good record, and the result was that Fern of Glenville has just been announced as the holder of eighth place in class AA, with a record of 15,157.6 pounds of milk and 815.62 pounds fat.—American Guernsey Cattle Club.

Own Your Feed Factory

Save $10 to $20 per ton

With these two wonderful new patented machines you can duplicate any high priced balanced ration mixed feed on the market and save half their cost.



The Masticator Hammer Mill is the only mill that makes fine meal of cornstalk, corn in shuck, alfalfa, pea-vines, oats, any kind of grain or any other roughage. Operated with 8 H. P. engine.

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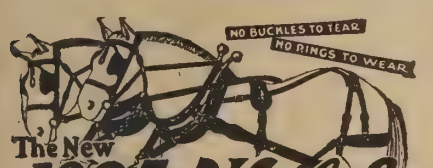


We give you the best known standard formulas free. Two famous feeding experts will help you with your feeding problems. Whether you are feeding dairy cows, cattle or poultry you need this equipment.

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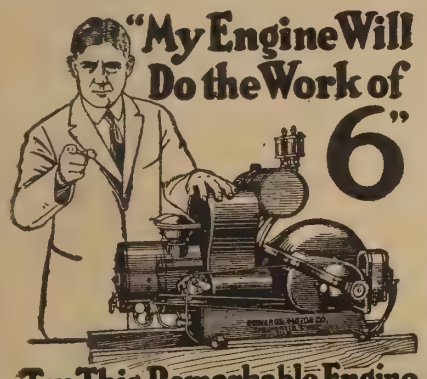
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Northwest Dairy Notes

HOARD'S DAIRYMAN:—The Carnation Milk Products Co. celebrated its 25th anniversary during September of this year. Founded in 1899 by Eldridge Amos Stuart, who still remains active president, the Carnation Milk Products Co. in the last quarter century has grown from a one-man concern into a vast commercial organization possessing ten condenseries on the Pacific Coast, alone.

Originally carrying the cans of milk from store to store by hand, Mr. Stuart's organization today has 34 condenseries operating in 12 states, with a distribution of nearly 1,000,000 cans daily. Recently the Carnation Milk Products Company purchased a large butter and cheese factory in France, and all its equipment and machinery.

⚜

With the establishment this year of the annual products show of Western Washington dairy products, there will be added a department to the Western Washington Fair at Puyallup that promises to become one of the biggest features in years to come.

The show this year, to be held in the new Electric Building, will be of much interest to the consumer and producer of milk, as it will set forth so that all may understand the standard system of grading and inspecting milk, cream, butter, and cheese, and to add to the novelty and attractiveness of the display will be an artistic feature that in eastern shows has drawn and held crowds for hours. Miss Alice McCookley, in a refrigerated glass studio case, will model all kinds of the daintiest and delicate flowers out of butter.

⚜

Glass lined thermos tanks of 1,500-gallon capacity are being used for the first time in the Northwest by the distributing plant of the Mayflower Dairy of Seattle, Wash. These trucks will be used in transporting milk to outlying districts. The Milk Transportation Co. of Seattle has just taken delivery of five 5-ton Whites, thus equipped. It is possible, by using this method of transportation, to move milk a distance of 300 miles and not lose over two degrees of temperature on the hottest day. In this case, however, the trucks are only covering a radius of 50 miles, so there is practically no loss of temperature between the concentration point and the distributing plant.

The tanks are made of steel, fused with glass on the inside, giving a completely glass lined interior. On the outside of this steel shell is three inches of cork insulating material, and this is held in place by a second steel shell. This construction not only assures the heat insulation that is required, but gives the tank the necessary sturdiness that is required to stand up to the shocks of the road.

The cost of each tank is $2,000, and this, compared to the cost of the $750 for tanks of a similar capacity for the distribution of oil and gasoline, gives an idea of the quality of the material used in the milk trucks.

⚜

Definite action toward construction of the dairy plant of the Yakima Dairymen's Association was brought forward at a recent meeting of the executive board. Plans for financing construction were completed. A holding company will be organized. This company will build the plant and lease it to the association under agreement for its purchase by the association. The building will cost $12,000 to $15,000. G. M. Chase and other local men are interested in the matter.

Washington. E. E. PATTERSON.

GMC

Pressure Lubrication Keeps GMC Engines Right

In addition to their many other advantages for dairy farm use, GMC Trucks offer you a better engine—longer lived.

Pressure lubrication, until lately an exclusive feature of fine passenger cars, now safeguards the operation of GMC engine surfaces—eliminates wear—saves engine repairs.

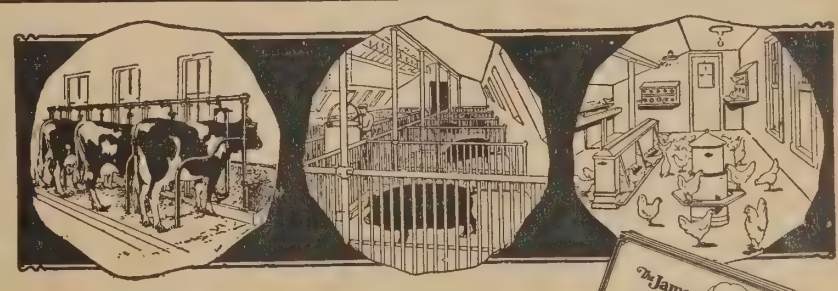
Every GMC engine bearing surface is supplied with oil under constant pressure from a simple gear pump located at the bottom of the oil pan. The bearings get oil if there is any oil at all in the crank case. You know what that means!

Pressure lubrication is a striking instance of the quality of GMC engineering and the care GMC takes to build you the most dependable truck.

GENERAL MOTORS TRUCK COMPANY
Division of General Motors Corporation
PONTIAC, MICHIGAN

General Motors Trucks

GMC



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Every Cow—Hog—Hen Farmer Can Use *JAMESWAY* Plans and Equipment

You'll be surprised at how little it costs to own and enjoy a Jamesway equipped, work-saving dairy barn, a sunny sanitary hog barn, or a comfortable, ventilated poultry house to increase your earnings. Write and get our Jamesway "Pay from Earnings" Plan on stanchions, stalls, carriers, water bowls, etc. As little as $10 to $12 per month will give you the finest dairy barn equipment you could want on this plan. And think of the increased earnings, shortened hours of labor, and a more pleasant place to work in!

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will tell you how you can have these advantages. Also tells how increased earnings soon pay their cost—and yield clear profits afterwards. If building, or remodeling, be sure to get Jamesway plans first. Our local Jamesway man will be glad to call and help you. Write today and mention how many cows, hogs, chickens, etc. you keep.



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How to get a good dairy barn.
How to remodel an old barn.
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The Essentials of a Good Cow Stall.
How to give cows pasture comfort in a barn.
How to judge a stanchion.
How to feed cows for profit.
How to insure "safety first" with the bull.
How to make the cleaning job easy.
How to water your cows in the barn.
How to have better hogs and bigger litters.
How to make more money from your hens.
How Jamesway "Pay-from-Earnings" plan pays for your equipment as you use it.
And many other helpful pointers on cow, hog and hen problems.

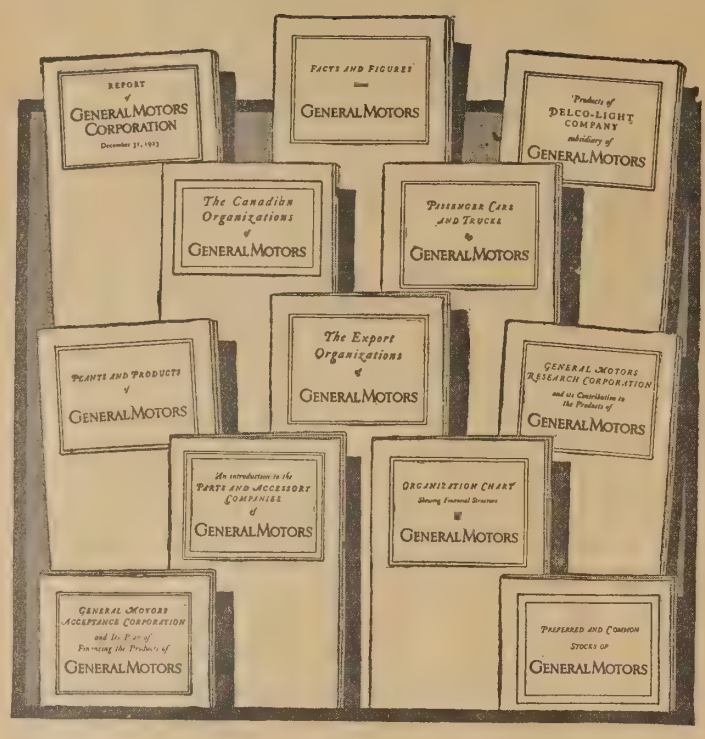
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KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

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Send for one or all

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There has been printed a series of interesting booklets, dealing with the subjects listed below.

FACTS AND FIGURES ABOUT GENERAL MOTORS
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PLANTS AND PRODUCTS
STOCKS—PREFERRED AND COMMON
GENERAL MOTORS ACCEPTANCE CORPORATION (*GMAC* PLAN)
GENERAL MOTORS RESEARCH CORPORATION
DELCO-LIGHT ELECTRIC PLANTS AND FRIGIDAIRE
EXPORT ORGANIZATIONS
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Any or all of these booklets will be mailed to you, if a request is addressed to Department of Financial Publicity, General Motors Corporation, 224 West 57th Street, New York.

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Wayside Musings — When a Baby Made The Front Page

JOSEPH S. MORRIS, WISCONSIN

AS we pick up our magazines, newspapers, or weeklies our attention is frequently called to the picture of a baby or a little child on the front or cover page. For a long, long time this would not have been considered a good front page feature, but more and more we are coming to consider the baby as the most important factor in human society and there is a reason why this is and should be so.

In the Gospel according to St. Luke, in your Bibles, the eighteenth chapter, fifteenth to seventeenth verses, we are told that the mothers were bringing their children to Jesus that He should touch them. When the disciples of Jesus observed this they rebuked the mothers. But mothers are always seeking blessings for their children and the disciples should have known that it was quite natural for those mothers to want this wonderful Man to bestow a blessing upon them. Of course, Jesus was very busy. The disciples probably felt that the mothers were imposing upon their Master by pressing about Him with their children. In the minds of these good men who were Jesus' close companions, children were of secondary importance. The main business was for Jesus to have opportunity to get his ideas and ideals to grown men so that His kingdom might grow. Jesus used the occasion to teach them a very great lesson, the lesson that children are our most valuable "assets," "for to such belongeth the kingdom of God", and "whosoever shall not receive the kingdom of God as a little child, he shall in no wise enter therein".

If there had been newspapers in those days such as we have today we should have seen on the front pages the next morning pictures showing the Great Teacher with somebody's baby in His arms bestowing His blessing upon it, and in the story it would have gone on to tell how the followers of Jesus resented the mothers pressing for attention to their babies and how the Master had rebuked them and told them that His kingdom could not come until all had learned how to be open to truth and receptive, as is a little child. I am not so sure that we have learned that lesson yet.

It was on that day in the long ago that a baby made the first page. Even though there were no newspapers it came to the attention of men that in building the good babies were of first importance. Today almost every great nation centers its attention upon babies and well they may for those who are to be the men and women of affairs twenty-five or thirty years from now are the babies of today.

Nurses and doctors advise the mother how to care for the baby when it comes. The great dairy interests provide clean and pure milk for food for babies and little children, and for all the rest of us, too, for that matter. And then as the little child grows up in the home it gets its first great lessons in love and kindness and unselfishness. Fathers and mothers plant seeds in the child's mind and heart that will bear fruit in all the years of life. And then there is the school to train and discipline the mind and the church to teach reverence, truthfulness, and brotherliness, and the colleges and universities to help in guiding to effective and efficient life. Oh, there are so many things that go into the process of developing a real man or woman that it may well be considered life's biggest job.

I think we may truthfully say that all progress in business, in agriculture, in industry, in government, in professional life depends upon the wisdom with which the early training of the child is directed. All real, big, permanent development must wait for the fitting, the training of men and women who have the ability to make better conditions prevail. Wonderful as are all the inventions and methods of life that bless our day, we need to remember that all were born in the minds and hearts of men and women. The baby, the human factor, is the greatest.

I do not believe we can think too much of our children unless in our love for them we foolishly fail to correct those faults that lead to bad, weak, or selfish characters. There isn't anything in all the world that gets hold of the human heart as does a baby. I think the great God implanted in us the instinct to love and protect our children because this is His method of improving the world. We find ourselves living again in the lives of our sons and daughters. No other gift of God can bring the thrill that comes to men and women as they hold in their arms their own lives reproduced in this wonderful being, the baby. All the world seems different and better with the coming of children. We want to build a better, happier world because we want our children to live in a better and happier world.

This is an important period in human history—the period in which babies "make the first page".



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It shows the latest fashions, coats made in Paris by Carha and imported by us. There is everything a woman needs for her personal use, for her family and for her home. This Catalogue fully supplies the man's and the boy's needs: clothing, everything for personal use, everything for the farm and the automobile.

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Dairy cows fed GOLD MEDAL VITAMIN DAIRY RATION are breaking their previous records for milk and butter-fat production.

Because GOLD MEDAL VITAMIN DAIRY RATION is so assimilable the digestible nutrients are nearer on a parity with the guaranteed analysis than in most other dairy rations on the market. The guaranteed analysis is as follows: Crude Protein, not less than 20%; Crude Fat, not under 5%; Crude Fibre, not over 8.5%; Nitrogen Free Extract, not less than 51.5%. (Total Carbohydrates 60.0%.) Note the low fibre content—still this ration is bulky enough to insure complete digestional processes.

For maximum milk production feed GOLD MEDAL VITAMIN DAIRY RATION the year around.

GOLD MEDAL FEEDS are prepared by the millers of GOLD MEDAL FLOUR with the same quality guarantee.

WASHBURN CROSBY COMPANY

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GOLD MEDAL Vitamin Dairy Ration (20% protein)
NORTH STAR Molasses Dairy Ration (16% protein)
GOLD MEDAL Hard Wheat Mixed Feed (16% protein)

GOLD MEDAL Vitamin Egg Mash (22% protein)
GOLD MEDAL Egg Mash (with dried buttermilk—22% protein)
GOLD MEDAL Poultry Fattener
GOLD MEDAL Live Car Feed
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DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets dull with trading in small volume for week ending Oct. 25th. Buyers see no prospects of advance and have held to immediate requirements. More interest in held cheese although in some markets it was necessary to sell at prices pretty well in line with fresh goods. Production heavy for season.

The average wholesale prices on American cheese, style Twins, for the week ending Oct. 25, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Oct. 25 1924	Oct. 18 1924	Oct. 25 1923
	Cts.	Cts.	Cts.
New York	20.0	20.0	25.7
Chicago	18.1	18.8	23.8
Boston	21.0	21.3	26.7
San Francisco	19.2	19.2	25.7
Wisconsin Boards	17.6	18.6	24.6

The receipts of cheese at these markets were 4,058,158 lbs. for the week as compared with 2,869,947 lbs. last week and 4,501,251 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets opened the week ending October 25 in an unsettled condition, but recovered toward the close with prices practically back to the previous week's level. Weakening factors were heavy production and the lack of demand for heavy holdings of storage butter. Support at close principally due to scarcity of top grades. Some export business although slight.

The average wholesale prices on 92-score butter for the week ending Oct. 25, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Oct. 25 1924	Oct. 18 1924	Oct. 25 1923
	Cts.	Cts.	Cts.
New York	37.7	39.0	48.2
Chicago	36.7	37.5	47.0
Philadelphia	38.2	39.5	49.0
Boston	37.5	38.8	48.0
San Francisco	38.2	39.1	46.2

The receipts of butter at these markets were 10,202,378 lbs. for the week as compared with 9,637,896 lbs. for last week and 9,232,096 lbs. a year ago.

Wisconsin October Condensery Prices

(Wisconsin Department of Markets)

The following table gives the prices paid for milk delivered at the plants listed below. Hauling charges must be deducted from these prices if prices for milk on the farm are desired. Some of the plants in the list are not strictly condenseries as they make a practice of bottling part or nearly all of their milk and prices paid by such plants usually run higher than those paid by straight condenseries. Some plants pay a certain price the first half of the month and different prices the last half. In such cases the prices for the two periods are averaged. If prices for the current month are not available the price for the preceding month is given.

City	Price to producers per 100 lbs.	Test of basis of payment %	Price paid for 3.5% milk
Berlin	$1.75	4.0	$1.53
Bloomer	1.80	4.0	1.57½
Brooklyn	2.00	3.5	2.00
Burlington	1.80	4.0	1.60
Chilton	1.80	4.0	1.57½
Clinton	2.00	3.5	2.00
Columbus	1.85	3.5	1.85
Darien	1.90	4.0	1.66
Delavan	1.80	4.0	1.60
East Troy	1.65	3.5	1.65
Elkhorn	1.65	3.5	1.65
Footville	1.60	3.5	1.60
Fox Lake	1.65	3.5	1.65
Genoa City	2.40	3.5	2.40
Greenville	1.80	4.0	1.57½
†Hartford	1.60	3.5	1.60
Jefferson	1.60	3.5	1.60
Johnson Creek	1.60	3.5	1.60
Juneau	1.90	4.0	1.70
Manawa	1.80	4.0	1.57½
Markesan	1.65	3.5	1.65
Marshall	1.85	3.5	1.85
Mayville	2.00	4.0	1.75
Merton	1.60	3.5	1.60
Monroe	1.80	4.0	1.57½
Monticello	1.80	4.0	1.57½
Neillsville	1.68	4.0	1.47
New Glarus	1.60	3.5	1.60
New London	1.80	4.0	1.57½
North Prairie	1.60	3.5	1.60
Oconomowoc	1.60	3.5	1.60
Orfordville	1.80	4.0	1.57½
Osseo	1.80	4.0	1.57½
Richland Center	1.75	4.0	1.53
Sawyer	1.60	3.5	1.60
Sharon	1.90	4.0	1.66
Stoughton	1.90	4.0	1.66
Sullivan	1.60	3.5	1.60
Waukesha	1.62	3.5	1.62
Walworth	1.70	3.5	1.70
Watertown	1.60	3.5	1.60
Waupun	1.65	3.5	1.65
West Bend	2.00	4.0	1.75
Weyauwega	1.80	4.0	1.57½
*Albany	1.55	3.5	1.55
*Belleville	1.60	3.5	1.60
*Darien	1.90	4.0	1.66
*Denmark	1.70	3.6	1.66
*Green Bay	1.50	3.5	1.50
*Hillsboro	1.60	3.6	1.56
*Lake Mills	1.50	3.5	1.50
*Middleton	1.57	3.5	1.57
*Lodi	1.86	4.0	1.68
*Oostburg	1.70	3.6	1.66
*Racine	2.71	3.5	2.71
*Reedsburg	1.86	4.0	1.68
*Sparta	2.00	4.0	1.75
*Spencer	1.61	3.5	1.61
*Valders	2.10	4.0	1.84

*denotes prices paid for September.

†Price for Hartford last month should have been $1.60 instead of $1.50 as given.

September Powdered Milk

(Report by U. S. Dept. of Agriculture)

Producers supplying powdered milk plants during September received from $1.58 to $2.45 a hundred for 3.5% milk. These plants pay from 10c to 30c a hundred for skimmilk and from 9c to 18c a hundred for buttermilk.

During September powdered whole milk sold for 56c to 60c per pound as case goods and for 22c to 28c per pound in barrels. Powdered skimmilk sold for 40c to 44c per pound as case goods and for 4½c to 11c a pound in barrels. Dried buttermilk sold for 3½c to 12c a pound in barrels.

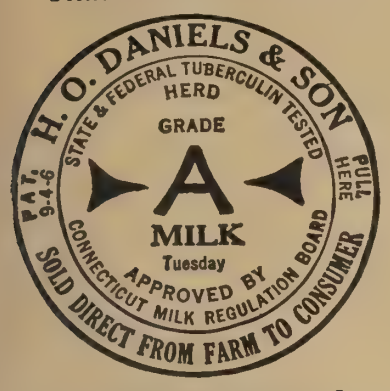
Carload Prices of Hay, Straw, and Feed, Oct. 25, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26.75	27.00	....	21.50	.....	25.00	24.00	23.50	18.00	24.00	18.00	24.00	....	16.00	
No. 1 Clover, mixed	20.00	.....	....	20.00	.....	.....	....	.....	16.50	18.00	16.50	.....	.....	15.00	....
No. 1 Clover	.....	.....	....	20.00	.....	.....	.....	.....	18.00	16.00	....	20.50	....	16.50	.....
No. 1 Alfalfa	.....	28.50	.....	.....	.....	33.00	30.00	28.00	27.00	23.00	22.00	.....	17.00	20.00	27.00
Standard Alfalfa	.....	25.50	.....	.....	.....	24.50	28.00	26.00	....	18.00	19.00	....	15.50	18.75	26.00
No. 2 Alfalfa	....	23.50	....	....	.....	23.00	25.00	23.00	24.00	13.00	16.00	18.00	13.50	16.50	25.00
Oat Straw	13.00	14.50	14.00	13.00	.....	.....	.....	.....	10.00	9.50	8.00	.....	7.50	.....	.....
Feed—Bagged															
Wheat Bran															
Spring	31.50	.....	31.50	30.00	.....	33.50	.....	.....	29.00	26.50	24.00	.....	.....	.....	.....
Soft Winter	34.00	.....	33.50	31.50	35.00	.....	.....	27.00	29.50	.....	24.75	25.00	.....	.....	38.00
Hard Winter	33.25	.....	33.00	30.50	.....	33.00	.....	.....	29.00	.....	.....	24.50	24.00	23.00	.....
Wheat Middlings		....					.....	.....					.....	.....	.....
Spring (Standard)	33.00	....	32.50	33.00	34.00	.....	.....	.....	32.50	29.50	26.50	.....	.....	.....	.....
Soft Winter	40.50	.....	40.00	38.00	35.00	41.00	.....	.....	36.00	33.50	.....	.....	.....	31.50	45.00
Hard Winter	.....	.....	.....	38.00	.....	37.00	.....	.....	36.00	40.00	.....	32.00	31.00	31.50	.....
Wheat Millrun	32.75	.....	.....	.....	.....	36.50	.....	.....	.....	.....	28.00	.....	.....	27.00	37.00
Rye Middlings	.....	.....	.....	32.50	.....	.....	.....	.....	.....	.....	25.50	.....	.....	.....	.....
High Protein Meals															
Linseed	51.00	.....	50.75	50.00	.....	.....	.....	.....	48.50	45.00	44.50	47.50	49.00	49.00	48.00
Cottonseed (41%)	49.50	.....	48.00	46.50	.....	.....	.....	40.00	44.50	44.00	45.50	42.00	.....	.....	.....
Cottonseed (36%)	45.50	....	45.00	43.50	44.25	38.00	.....	38.50	41.50	41.00	42.00	40.00	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	60.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	34.00	.....	.....	28.00	29.00	27.50	.....	26.50	27.00	23.00	30.00
Gluten feed	47.95	.....	46.90	44.70	46.50	.....	.....	.....	42.70	40.80	44.00	.....	.....	.....	.....
Hominy feed (white)	44.00	.....	43.00	.....	45.00	47.00	.....	.....	40.00	37.50	.....	39.00	35.00	.....	.....
Hominy feed (y'llow)	43.75	.....	43.50	.....	44.00	47.00	.....	.....	40.00	37.50	36.50	.....	35.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	.....	40.00	.....	.....	.....	50.00
Dried Beet pulp	.....	.....	.....	38.50	38.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.00

San Lac Seals

The "Ideal" Pull Cap That Pulls Business



You Who Produce and Distribute Your Own Milk

If you want to hold your present customers in spite of competition—use San Lac Seals. If you want to secure new customers without extending your present route—use San Lac Seals.

The convenience and sanitary features of the San Lac Seal appeal to housewives. They prefer the San Lac Seal. They tell their neighbors about them.

San Lac Seals will hold your present customers and secure new ones. Send for samples and show them to your best feminine adviser. She can tell you what advantage it would be to use them.

Every milkman can afford to use San Lac Seals. 10,000 seals will cost you only $15 F. O. B. factory, including cost of design. This investment is not large and will show you how much they are worth as customer getters and holders.

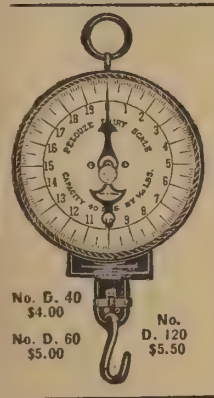


Cross-section view of bottle top with SAN LAC SEAL in place. Note the straight cap which covers the pouring lip of the bottle.

The use of San Lac Seals in your town is inevitable. Introduce them and gain the benefits.

Write for Sample Cap and Price.

THE BEAVERLAND CORPORATION
150 Bostwick St., LOWVILLE, N. Y.



"PELOUZE"
Dairy Scales

Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound
Guaranteed AccuraTe

Made to comply with Departments of Weights and Measures. Large Circular Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail. Order direct or through any leading Supply house. Specify "Pelouze."

No. D. 40 $4.00
No. D. 60 $5.00
No. D. 120 $5.50

PELOUZE MANUFACTURING CO.
232-242 East Ohio Street, Chicago

October Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers for 3.5% milk delivered at factories during October is based on reports made by 119 condensed and evaporated milk firms:

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.17	$2.17
Middle Atlantic*	19	1.58—2.62	1.84
South Atlantic	1	2.32	2.32
E. No. Central	73	1.47—2.40	1.64
W. No. Central	4	1.57—1.65	1.60
North Western	12	1.57—1.72	1.63
South Western	10	1.60—1.79	1.65
United States	119	1.47—2.62	1.70

*Fifty-eight additional factories reported prices to be based in part on the current month's wholesale butter quotations. Twenty-three factories reported prices not determined, and nine reported plants closed.

The eight factories in the Middle Atlantic Section not included in the previous report averaged $1.86 per cwt. for 3.5% milk in the 201—250-mile freight zone from New York City.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for September:

	Range	Ave.
Condensed, per case	$5.20— 6.35	$5.75
Condensed, per cwt.	6.90—11.00	9.51
Evaporated, per case	3.24— 4.50	3.87
Evaporated, per cwt.	7.23—12.50	9.14
Condensed skim, per cwt.	4.00— 7.50	5.95
Evaporated skim, per cwt.	2.00— 7.60	3.96

FOND DU LAC, Wis., Oct. 31—Average cheese prices (majority of sales), f. o. b. shipping point: Twins, 18c; single Daisies, 18½c; Longhorns, 18½c; square prints, 20c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange, Nov. 1: Single Daisies, 17¾c. On Farmers' Call Board, Oct. 31: Single Daisies, 17¼c; Longhorns, 17¾c; square prints, 19⅝c.

MILWAUKEE, Nov. 3—Creamery, extra, tubs, 38c; standards, 37c; extra firsts, 35@36c; firsts, 31@32c; seconds, 30@32c.

Eggs—Fresh gathered firsts (new cases), including cases candled, 47@47½c; ordinary first standard cases), 45@46c; miscellaneous lots, shippers' cases returned, candled, 42@44c; seconds, dirties, 29@30c; checks, 20@28c.

Cheese—American full cream, Twins, 18@18½c; Young Americas, 18½@19c; Longhorns, 19@19½c; Daisies, single, 19@19½c; squares, 19½@20c; American, 32c; Pimento, 34c; Swiss, 42c; Bricks, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

CHICAGO, Nov. 3—The butter market today ruled steady with trading quiet. Buyers showed little interest in spite of the liberal offerings on the part of sellers. Eighty-six and 87-score butter was showing some accumulation as these scores were moving slowly. The centralized car market was steady, with practically no buying interest noted. Some 90-score storage centralized reported sold at 35@35¼c. Fresh butter: 92-score, 38½c; 91-score, 37c; 90-score, 36c; 89-score, 34c; 88-score, 32c; 87-score, 30½c; 86-score, 29½c. Centralized car lots—90-score, 37c; 89-score, 34½c; 88-score, 31½c.

NEW YORK, Nov. 3—Butter—Firm; receipts, 5,392 tubs; creamery, higher than extras, 41@42½c; creamery extras (92-score), 40½c; creamery firsts (88- to 91-score), 34@39½c; packing stock, current make No. 2, 26c.

In doing or saying, think not of the apparent effect, but the actual justice.—ALFRED PALMER.

SALE ANNOUNCEMENTS

Nov. 11—Guernseys. Grades and pure-breds. Mecker County Guernsey Breeders' Ass'n., Dassel, Minn.
Nov. 12—Holsteins. Dispersal Oriolevale Herd, Neillsville, Wis. Wayne F. Potter, Prop.
Nov. 14—Holsteins. Postdale Farms Dispersal, Durand, Michigan.
Nov. 14—W. W. Marsh Cherub Guernsey Sale. Inter-state Fair Grounds, Trenton, N. J.
Nov. 15—Goodhue County Holstein Breeders' Annual Sale, Zumbrota, Minn. 60 Registered Holsteins.
Nov. 15—Holsteins. Sale of the Milking Herd of Registered Holsteins. Hollyhock No. 3, Dousman, Wis. W. L. Baird, Sales Mgr.
Nov. 17—Pure-bred bull sale, Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Secretary.
Nov. 17—Holstein Dispersal, Oak Hill Stock Farm, John H. Smith, Prop., Crown Point, Ind.
Nov. 17—Brown Swiss. Dahlem & Schmidt, El Dorado, Kansas.
Nov. 18—Holsteins. Bull Bros., Aberdeen, S. D.
Nov. 18—Holsteins. Annual Quality Sale. Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Sec'y., Waukesha, Wis.
Nov. 19-20—Guernseys. The Western Wisconsin Guernsey Cattle Breeders' Sales Ass'n., West Salem, Wisconsin.
Nov. 20—Holsteins. Cowdenside Herd Sale. R. N. Thompson, Cowden, Ill.
Nov. 20—Holsteins. Barron County, Wis. Annual Fall Sale Grades and Pure-breds, Barron, Wisconsin.
Nov. 21—Holsteins. Manitowoc Co. Holstein Breeders' Consignment Sale at Manitowoc, Wis. Chas. Hampke, Secretary.
Nov. 21—Holsteins. Monclova Stock Farms, Monclova, Ohio.
Nov. 21-22—Arden—Mineral Springs Fall Sale, St. Paul, Minn. 70 Registered and 100 Grade Holsteins.
Nov. 24—Walworth Co. Holstein Bull Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 24-25—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Manager.
Nov. 25—Holsteins. Dispersal Sale of H. H. & R. C. Walker at Du Quoin State Fair Grounds, Du Quoin, Ill.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.
Dec. 2—Holsteins. Western Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Webster City, Secretary.
Dec. 3—Holsteins. Eastern Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Sec., Webster City.
Dec. 9—Holsteins. Dispersal of J. M. Kelley herd at Baraboo, Wis. Frances Darcey, Sales Manager.

FORWARD WISCONSIN
FARM FACTORY COMMERCE

What Do You Believe?

ARE our factories and the men who try to carry them on, good or bad for our state?

That is a question all citizens of Wisconsin must think about. They should get the facts and answers for themselves. They should not let the hearsay of vote-chasers decide it for them.

Look Around. See for yourself what factories have done for your town or other towns you know about, and what they have meant for the building up of farms and communities.

Shall we let unfair laws hold back Wisconsin industry? Any unsound laws such as:

1. Making it a crime for anyone (except the farmer) to work more than eight hours a day.
2. Wage insurance for idle men.
3. Higher taxes than are paid in other states.

Some of our large industries have already turned their Wisconsin plants into branch factories. When big industries turn their plants into branch factories four things happen that affect every citizen:

1. Wisconsin loses the right to collect income taxes on business not done in the state. On the average ninety per cent of their products are sold in other states.
2. We lose the right to assess taxes on officers and stockholders who go to live in other states.
3. We lose the right to collect inheritance taxes from the estates of those who have moved away.
4. Most of all, we lose the advantage of the presence of men of ability and capital who can help to build our communities and our state.

Send for free booklet; "The Story of Wisconsin"

WISCONSIN MANUFACTURERS' ASSOCIATION, Madison, Wis.

THE COMMITTEE IN CHARGE OF THIS "FORWARD" PROGRAM IS:
CARL A. JOHNSON, President Gisholt Machine Co., Madison
WALTER KOHLER, President Kohler Co., Kohler
GEORGE VITS, President Aluminum Goods Mfg. Co., Manitowoc
W. H. ALFORD, Vice-President Nash Motors Co., Kenosha
OTTO H. FALK, President Allis-Chalmers Mfg. Co., Milwaukee
F. H. CLAUSEN, President Van Brunt Mfg. Co., Horicon
GEORGE F. KULL, Secretary Wisconsin Mfrs. Ass'n., Madison

Farm and Factory Must Prosper Together



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Danny Goes to Club Meeting

Foreword: Another chapter in the "Adventures of Daniel Dare". Although not perfect by any means, the secretary's report may give you some ideas about writing such a report. The facts which Danny gathers at this meeting with regard to the history of club work should interest you. Perhaps you will find some program and business meeting helps here, too. Read on.

"THE meeting will please come to order." President Jimmie Watkins gave three sharp raps with his gavel upon the table top. The buzzing stopped. Twelve pairs of eyes turned toward the president.

"The secretary will please read the minutes of the last meeting." David Baker arose, picked up the book and began.

"The last meeting of the K. K. K. was called to order by the president at 3 o'clock Saturday afternoon, October 18. It was held at the home of Conrad Simms. The secretary's report was read and approved. Roll call was then taken and each member answered by giving a report upon his project. Several reported that they had already selected seed corn and picked out the piece of ground they were going to use the following spring for their project. It was voted that Daniel Dare gave the best project report. As there was no further business to be conducted at this meeting, it was adjourned at three thirty and followed by the program prepared by the committee of which Harold Hopkins and Bill Burns were the two members. There were some very good numbers on the program including readings, songs, and a talk by our club leader, Mr. Matthews. The program committee is to be congratulated upon the fine entertainment they provided for us. The club was then happily surprised by Mrs. Simms who served delicious refreshments consisting of home-made ice cream and cake. A vote of thanks was given to Mrs. Simms for the very splendid hospitality which she extended the club on that day. We then went outside and had a very fine ball game. This ended the day's activities and we left for home about five o'clock."

"If there are no corrections to be made, the minutes will stand approved as read," President Watkins announced. "We will now have roll call. Please answer by reporting on your project."

The secretary then called the roll and each club member stood up and gave a report. Occasionally the leader interrupted with a question or two. When the boy questioned could not answer, the question was given to the whole club.

"Is there any further business to be brought up at this time?"

And so the meeting proceeded until at last—"If there is no further business, the motion is in order for adjournment, following which we will have our regular program."

"I move we adjourn!"

"Second the motion."

"All those in favor of adjournment, please signify by saying 'Aye'."

A unanimous chorus resulted.



No, this is not Teddy Roosevelt, but "Daddy" (R. A.) Moore, head of the Agronomy Department at the Wisconsin College of Agriculture. Professor Moore, among other achievements, is connected with the early history of club work.

"Fellow club members, we have the unusual privilege today of having with us our Assistant State Club Leader, Mr. McCarthy. He has come quite a ways to be with us. I am now going to call upon him to give a short talk. I think he is going to say something on the subject 'The Story of Club Work'."

Mr. McCarthy arose and—"Mr. Chairman, I have been very much impressed with your very fine business meeting. I think it is splendid that you boys and girls have the opportunity of getting together in this family-sort-of-a-way and talking things over, but at the same time injecting business methods into your meeting. I am glad to be with you today and I will try to say something which may be new to you.

"Club work is hardly twenty-five years old. About the first that was done along this line was some time around 1900 when O. A. Benson, a rural school teacher in Iowa, organized a club of rural boys and girls for out-door nature study.

"I think you will be much interested to know that one of the first boys' clubs was a corn club. Perhaps we really couldn't call it a club, as we know it today, but at any rate the principles were just the same then as they are now.

"Soon after Mr. Benson formed his out-door nature study club, Professor R. A. Moore of the Wisconsin College of Agriculture, who had been developing some new strains of corn and wanted them to get out among the farmers of the state, thought the best way he could do it would be through the boys and girls. So he distributed quite a large amount of good seed corn. He then arranged a contest in Richland County. More than $300 were offered in prizes. The boys and girls were furnished with pure-bred seed. The first year about four hundred boys and girls took part. Within five years, fifty-one counties held similar contests. It is estimated that in 1912 approximately 20,000 boys and girls competed in Wisconsin alone.

"About the time 'Daddy' Moore started his corn club work in the North, Dr. Seaman A. Knapp, of the Bureau of Plant Industry in the U. S. Department of Agriculture, started a similar line of work among the boys and girls in the South. In 1905 there was a failure of the cotton crop because of the boll weevil. Dr. Knapp, after an investigation, told them that a variety in rotation of crops was necessary. Dr. Knapp had heard of the work going on up North, so he decided to make the boys in his country demonstrators in the art of corn growing. In this way, the corn clubs in the South were organized. Thousands of boys and girls enrolled.

"As a result of this work, great quantities of corn were thrown onto the southern market and the next problem was that of marketing. The hog seemed to be a profitable means for marketing corn and the pig club idea got started.

"Girls began to show more and more interest in club work and in a short time garden and canning clubs came into existence. By 1912 club work throughout the cotton belt was firmly established.

"In 1914 the government saw fit to nationalize the club movement. The Smith—Lever act was passed in 1914 and gave club work a sound, financial backing. A half million boys and girls are enrolled in club work throughout the United States at the present time. Nearly every state in the Union has boys and girls enrolled.

"Now the fundamentals laid down in this early work by Dr. Knapp and Professor Moore have remained unchanged throughout all these years of 4-H Club development. These fundamentals are: (1) that the boy or girl should own a project; (2) should conduct the project according to directions; (3) should keep records on the project; and (4) should make an exhibit.

"I have here a little button in the lapel of my coat and I see that all you boys are wearing the same button. What is it you see on this button? A four-leaf clover, that's right, and what do the four H's stand for? Head, hands, heart, and health. What does the four-leaf clover stand for? Ah, you say good luck. No, and yes. I think the four-leaf clover stands for pluck, but do you know, if you work, work, work, you can work that letter 'p' right off, and what you have left will be 'luck'.

"Now I want to congratulate you boys and girls on your splendid meeting. I want to urge you to keep right on with club work. Your president here, Jimmy Watkins, has made a fine record, and one which the rest of you boys will have hard work to beat, but remember, it can be done.

"I think a good way to close the afternoon session would be first to repeat the 4-H club creed and then sing some good old club songs. All together now on the creed.

"I pledge my head to reason, my heart to loyalty, my hands to service and my health to efficiency for the good of my country, my community, and my home.

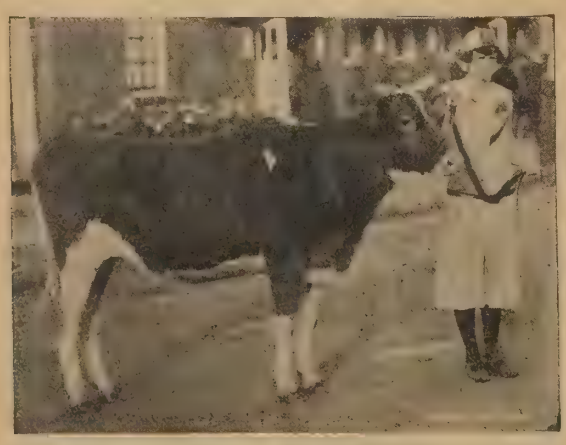
"Now what will we sing? What will it be? Hurry up."

And so the meeting was turned over into a song fest. They sang many club favorites, including "Hail, Hail, the Club's All Here", "I'm Forever Boosting Club Work", and others.

Then came the refreshments and after that a ball game outside, but before the club had dispersed, a big vote of thanks was given to Mr. McCarthy for the message he had brought, and to Mrs. Watkins for her splendid hospitality and most excellent refreshments.

What a jolly time they had at their club meetings! The club met once a month at the home of some member. The first Saturday afternoon in each month was set aside as the regular meeting date.

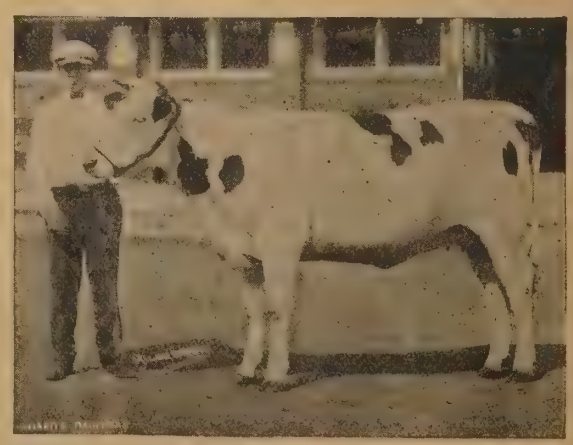
Daniel Dare went home with a new vision of what club work meant and with a new determination to win out in spite of whatever obstacles he might come up against. The spirit of club work had entered Daniel's soul and made his body fairly tingle with ambition.



MARGARET RUSSELL, A HOARD'S DAIRYMAN JUNIOR, SHOWED AUGUST GUSSE'S YEARLING GUERNSEY IN THE CLUB CLASS AT THE NATIONAL DAIRY SHOW AND WON A BLUE RIBBON



MEET ADOLPH MISTELE AND HIS BLUE RIBBON JERSEY YEARLING HEIFER, NOBLE GYPSY LADY. HANDSOME PAIR, DON'T YOU THINK? THEIR HOME IS IN WISCONSIN



EARL CROWELL, LIKEWISE A HOARD'S DAIRYMAN JUNIOR, WON FIRST AT THE NATIONAL ON HIS YEARLING HOLSTEIN HEIFER SHOWN HERE

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

In the October 31 issue the following articles are discussed: "Gasoline Engine Troubles and Remedies", "Nutrition Dairy Barn Completed", "A High Point at the National Dairy Exposition", "What Cow Testing Will Do for the Dairy Farmer", "Building Success on Quality", and "Keeping up Fertility on Dairy Farms".

How can you tell whether or not the carburetor on your engine is getting gas? By opening the drain cock under the carburetor. If fuel flows out freely it is in good shape. It is a good idea to drain the carburetor occasionally to get rid of water and any foreign matter that may collect.

What is the purpose of the new dairy barn at Beltsville, Maryland? The new $20,000 dairy barn on the Experimental Farm of the Dairy Bureau is two stories in height, 36x118 feet in dimensions and is built of concrete and tile with a gable roof. It will serve the two-fold purpose of containing an experimental laboratory and housing dairy cows for the purpose of studying animal nutrition.

Why was the grade cow exhibit at the National so important? It showed the high value of good purebred bulls. No cow was allowed in the grade cow exhibit with an average of under 350 lbs. of butterfat in one year. Cows under four years of age had to produce 250 lbs. of butterfat.

What will the cow testing association do for the dairy farmer? It will help him to discover the unprofitable cows; help him increase production and profits; teach him the best crops to grow; help him buy feed co-operatively; and develop community spirit.

Give Mr. Ramsay's rule for success. Believe in yourself and your work. Set a fair price and hold to it. Put your hand to the plow and work like blazes with your eye on the goal.

How can soil fertility be kept up on the dairy farm? By liberal application of manure, by proper growing of legumes, by the addition of lime, phosphates, and potash when needed.

Junior Letters

Keep on Trying

Hoard's Dairyman Juniors:—I joined the calf club a year ago last May. The first meeting we had we elected officers for the calf club, then elected a local leader, president, and vice-president and secretary-treasurer. I was elected secretary and treasurer and my work is to keep minutes, call meetings, and keep the treasurer's report. In July we began to go judging and the middle of September we had county fair when our calves were judged. My calf took second place. The county agent picked out the team to go to the state college. We took fifth place, but we weren't disappointed. We are going to keep trying till we make a success of taking first place.

New Mexico. Robert Jones.

Best Jersey Club Members

Hoard's Dairyman Juniors:—We are two girls from Louisiana; both of us belong to the Boys' and Girls' Agricultural Club. One of us belongs to the poultry club and the other to the Jersey Calf Club. Our county agents' names are Miss E. Deshatels and Mr. I. J. Heath. I, Gertrude Sharp, am a member of the best organized club in the state, Seventh Ward. Dorothy's brother, Staples, and I won the first prize for being the best boy and girl Jersey calf club members in the state. The prizes were Panama hats.

I, Dorothy McClendon, am a poultry club member of the ninth ward club. I take great interest in raising Rhode Island Reds. Last spring I had an incubator hatching; it was very interesting to watch them come out of the shell. I won prizes at both the Baton Rouge Poultry Show and at the Boys' and Girls' Short Course last summer (1923).

We would appreciate and answer all letters received. Our addresses are Dorothy McClendon, Harelson, La., and Gertrude Sharp, Baton Rouge, La., R. F. D. No. 2, Box 85.

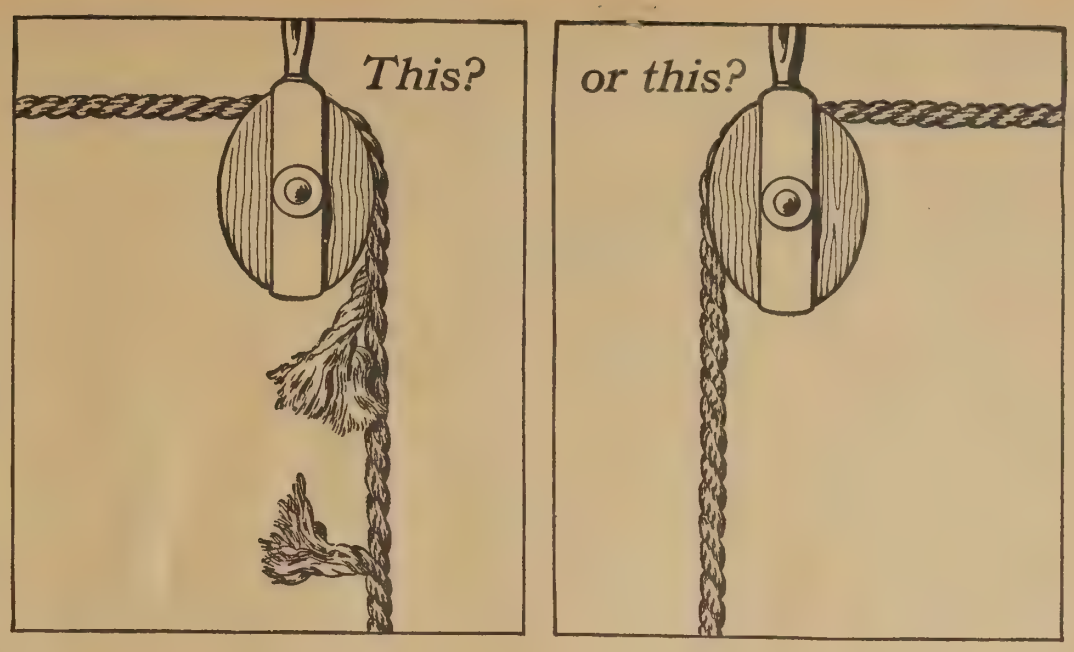
Dorothy McClendon and Gertrude Sharp.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

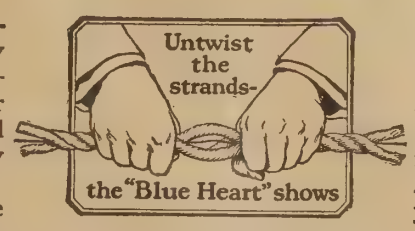


You can tell *beforehand* how a rope will wear

TIME and work will eventually prove the value of *any* rope. But that's too late—*after* you've spent your money. Know beforehand and you'll save both money and disappointment.

There *is* a way to tell rope value in advance—a sure way. Not by outward appearance, for ordinary rope may look better than it is. And even in manila ropes there is wide variation. Many grades of manila fibre can be spun into "manila rope".

Untwist the strands of a rope before you buy. If you see a thin, blue thread marker—the "Blue Heart"—running in the center between the strands, then you may be sure of these facts about the rope.



What the "Blue Heart" signifies

The "Blue Heart" marker means that the rope is genuine H. & A. "Blue Heart" Manila Rope spun from high grade, pure selected manila fibre by rope makers with over half a century's accumulated experience.

It means also that in any size, on any job, the rope will wear longer and deliver without fail the strength you have a right to expect. For the selected fibres of H. & A. "Blue Heart" Manila Rope are drawn, spun, laid and properly lubricated so as to insure the smooth working of every fibre, yarn and strand.

Buy rope scientifically. Know what you are getting. Untwist the strands and look for the "Blue Heart"—our registered trade mark that assures you of dependable rope value.

GUARANTEE

H. & A. "Blue Heart" Manila Rope is guaranteed to equal in yardage and exceed in tensile strength the specifications of the U. S. Government Bureau of Standards. Any H. & A. "Blue Heart" Manila Rope found not to be as represented will be replaced.

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For other jobs where a high-grade sisal rope is wanted, use the best—H. & A. "Red Heart" Sisal Rope—spun from selected sisal fibre by the same skilled rope makers.

Whatever may be your use for rope you will find an H. & A. brand of cordage to meet your requirements.

Special offer

The coupon below with 25c will entitle you to our special Halter Lead made from H. & A. "Blue Heart" Manila Rope. It is ½ inch in diameter, 7 feet long, and is fitted with a snap at one end. It is offered to introduce to you the great strength and wonderful wearing qualities of H. & A. "Blue Heart" Manila Rope.

If your dealer does not carry H. & A. "Blue Heart" and cannot supply you with this special Halter Lead, fill out the coupon below and mail it to us with 25c, coin or stamps, and your dealer's name. A Halter Lead will be sent you prepaid at once.

The Hooven & Allison Company
"Spinners of fine cordage since 1869"
Xenia, Ohio

H. & A. "Star Brand" Binder Twine

evenly spun from the best fibres, is of full yardage, ample strength, and is used from coast to coast by farmers who claim it is never cut by insects

H&A

Gentlemen: H. D. 11-7

Enclosed is 25c for which please send me one H. & A. "Blue Heart" Manila Halter Lead.

My Name.....

Address.....

My Dealer's Name.....

Address.....

H&A "Blue Heart" Manila Rope

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Ship your FURS

To McMILLAN FUR & WOOL CO.
MINNEAPOLIS, MINN.

Old Reliable (35 yrs.) and Largest Dealers in the Northwest. Pay High Prices. Quick Returns. Satisfaction.

Free! Circulars to anyone interested in Raw Furs. Trappers Guide to those who ship to us.



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Registered Holstein cows, heifers and bulls for sale, Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

I am offering my entire herd of Holsteins for sale, 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1.250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

1,000 lb. yearly record two year old bull for sale. Prilly breeding, sires nearly all heifers and straight rumps. Retest. Price $500.00. O. WESTERHEIDE, New Douglas, Ill. 15-*

A few serviceable and near serviceable registered Holstein bulls. Also all classes of females. MARINETTE COUNTY ASYLUM, Peshtigo, Wis. 15-4

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Holstein Herd Sire for sale or will trade for either grade or pure bred federally tested females. "North Star Gift Champion," a 4 yr. old son of "Johanna Bonheur Champion". Dam, the great 1,000 lb. cow "Little Gift of Spring Valley". Light in color, easily handled and guaranteed. Write or visit Walcowis Farms, Lake Geneva, Wisconsin 17-*

For Sale—Seventeen bred Holstein heifers. ED. WILLIAMS, Barneveld, Wisconsin. 17-2

For Sale—10 Registered Holstein heifers bred to 37 lb. sire, freshen Dec., Jan. RIVERSIDE STOCK FARM, Peshtigo, Wisconsin.

Holsteins springers and fresh cows in car lots. W. STRAUSS, R. 5, Watertown, Wis. 17-2

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

10 Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

Registered Guernsey male 7 months, papers transferred, express prepaid. GERTIE SWISHER, DeLand, Illinois. 16-3

To Make Room for winter will sell 15 Registered cows and heifers, some with A. R. records. Also a few young bulls of serviceable age. Price reasonable. Send for lists. VERNDALE GUERNSEY FARM, Burlington, No. Dak. 16-2

Two Serviceable Guernsey Bulls for sale. Dams have over 500 lbs. fat. Six bulls 6 months old. Dams and grandams average 697 lbs. fat. Sale list. HOMER RUNDELL, Livingston, Wis. 9-Spl

Registered Guernsey Bull Calves. A. R. breeding. Forty dollars up. B. McADAM, Mosinee, Wis. 15-spl

Pure Bred Guernseys—Yearling bull, sire's dam 710 lbs. fat, grandam sold for $2,500. Priced to sell. Several cows and bred heifers. ECHO BAY FARMS, Geo. E. Schuette, Supt., Elcho, Wis. 17-2

Jersey Bull—Typy two year old from University of Wisconsin herd. Reasonable. GLEN EYRIE FARM, Delavan, Wis. 16-2

For Sale—Ten Jersey cows and heifers at a bargain. Accredited herd. M. C. VOSBURG, Fort Atkinson, Wisconsin. 17-2

STOCK WANTED

Guernseys: Ten fresh or springers, with cow testing records, must be guaranteed free tuberculosis and abortion and priced right for cash. J. HOWARD CLIFFE, Ivyland, Pennsylvania. 12-*

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

For Sale—German Shepherd Police puppies and grown stock; the ideal farm dog, natural heelers and real watch dogs. Will trade for Guernsey heifers. HILLACRE KENNELS, Oskaloosa, Ia.

Spayed Shepherd Females, heelers with nerve. Satisfaction guaranteed. WILBUR DAY, Brighton, Iowa.

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. Catalogue. BECKENNELS, Herrick, Ill. 14-4

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

Two double unit Universal Milkers, complete with pump and fittings, $175. Also Victor Junior power churn $75. Both guaranteed first class condition. WALTER GERWIG, Forreston, Illinois.

For Sale—No. 98 De Laval clarifier with motor, used five months, $175. Address BOX 340, care Hoard's Dairyman.

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Alfalfa Hay—For sale. Choice pea green second and third cutting. Weights and grades guaranteed. Write for delivered prices. ALBERT MILLER & CO., 192. No. Clark St., Chicago, Illinois. 12-*

Baled Hay and straw for sale. Let us quote you. Prompt service. FRED SEEHAFER & SON, Marshfield, Wis. 13-5

Baled Hay—We are now baling our surplus alfalfa. If you would like a carload place your order now. Market prices. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 16-4

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

TOBACCO

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; smoking, five pounds, $1.25; ten, $2.00; pipe free. Pay when received. Tobacco guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 14-4

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Kentucky. 16-4

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50. Smoking 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and recipe free. FARMERS UNION, Paducah, Kentucky. 17-4

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

PATENTS

Patents Procured: Trade Marks registered—A comprehensive, experienced, prompt service for the protection and development of your ideas. Preliminary advice gladly furnished without charge. Booklet of information and form for disclosing idea free on request. RICHARD B. OWEN, 86 Owen Bldg., Washington, D. C. 17-Spl.

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

PARTNER WANTED

Want experienced and successful dairyman farmer as sharing partner in large dairy ranch, registered Ayrshires, first class buildings, running water, alfalfa, located on good highway near two railways. Partner should be able to invest to the value of half the equipment, but this is not absolutely necessary if right man is found. References required. R. D. GEORGE, Boulder, Colorado. 15-3

Wanted—Experienced dairyman, 40 cows, one helper or partnership 50-50. BOX 178, Rockville, Md. 16-2

FOR RENT

Wanted—A good, reliable married man to take charge of modern dairy farm on share basis. The farm consists of 200 acres under cultivation and is located right on the edge of town and only five minutes walk from high school. There are fifty head of pure bred Holsteins, about twenty-five will be milking this winter. Address BOX 332, care Hoard's Dairyman. 16-2

Several well improved farms in Minnesota and eastern North Dakota can be rented on favorable terms by persons who have their own help and experience with livestock. Corn, alfalfa, hogs and dairying insure good earnings. For complete information and free book descriptive of the country, write to E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minnesota. 8-*

For Rent—Dairy farm, 432 acres. Located at city limits, Beloit, Wisconsin. DON VAN WART, Agent, Beloit, Wis. 15-3

FARMS FOR SALE

"Official facts on Wis. farms. Write DEPT. AGRICULTURE, Capitol 25, Madison, Wis." 10-8

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

For Sale—460 acres; 40 miles from Chicago. Farm consists of 200 acres of fertile, heavy producing, black soil, under high state of cultivation. 260 acres Blue Grass and Oak Timber. 2 modern dwellings; 2 other good dwellings; 2 concrete silos; barn and other outbuildings erected in 1922. Full equipment of new farm utensils. Ideal plant for feeding and dairying. You would have to see this farm to appreciate its value. R. W. COOPER, Owner, Gilberts, Ill. 15-spl.

Opportunity awaits you in Southeastern Montana. Corn, alfalfa, beans and small grains are dependable crops on Northern Pacific Railway Company's selected low priced lands—20 years to pay at 6 per cent—direct from Company to farmer. Address J. H. COOK, Eastern Land Agent, 803, Northern Pacific Railway Company, St. Paul, Minn. 17-Spl.

Montana grain farms and stock ranches for sale or rent. Correspondence invited. J. B. GERGEN, Division B, Box 1197, Great Falls, Mont. 17-Spl.

Highly Improved 400 acre dairy farm. 70 Holstein dairy cows. Close Kansas City. Attractive price. MANSFIELD BROTHERS, Ottawa, Kansas. 17-2

125 Acres Valuable wood, 18 cattle, horses, crops, bull, hogs, separator, gas engine, machinery, vehicles, hay, vegetables, firewood included to settle affairs; estimated pulp, 100,000 ft. timber should pay for all; good quality soil, brook watered wire fenced pasture, variety choice fruits; good 6 room house, piped water; large basement barn, silo, garage, etc. Unusual value at $4,500, only ½ cash. Details pg. 26 New Illus. Catalog, 152 pages money making farm bargains. Free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

FARMS WANTED

Want southern or central Wisconsin farm of from 120 to 360 acres with stock. WALTER MILLER, Brumder Bldg., Milwaukee, Wis.

WANTED TO RENT

Experienced dairy farmer (Swiss) with own help wants to rent fully equipped dairy farm. Ohio preferred. JOHN STAUFFENEGER, R. 2, Alliance Ohio.

EXCHANGE

Unimproved Land—No mortgage, to exchange for equity in improved farm, stock and machinery. V. E. CONWELL, Ladysmith, Wisconsin.



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Civil Service Positions—Mail service employees needed. For instructions write FRANK PERGANDE, 35-9137 Bartlett, Milwaukee, Wisconsin. 16-*

Ten Testers Wanted before December 1st for one year in Cow Testing Associations. Prefer single men over twenty one years of age having Short Course or herdsman training. Tell experiences in dairy cattle feeding and operating Babcock tester first letter. With salary $75 to $80. Write CRAMER, Dairy Records Bldg., Madison, Wis. 17-2

Wanted—Men with practical dairy experience for cow testing association work by December first. Salary about $75.00 per month. Give references first letter. H. E. JAMISON, Dairy Department, University of Illinois, Urbana, Illinois. 17-2

Wanted—Single men for barn work on up to date dairy farm. De Laval milkers used. Wages $50.00 per month to start. Board and room furnished. ROKER FARMS, La Salle, Illinois.

Fireman, Brakeman, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 17-4

Wanted—Help on dairy and poultry farm near St. Louis. Good farm products route established. State qualifications, pay expected and references in answer. Would consider good working partner. Thoroughbred Holstein herd. P. W. HARSH, Webster Grove, Missouri, R. 5, Box 415.

Wanted—At once, married herdsman—Guernseys. House, garden and milk furnished. State age, experience, number of children and wages in first letter. LLOYD RUNDELL, Roberts, St. Croix County, Wisconsin. 17-2

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted—Position feeding and milking test cows or as herdsman. Holsteins preferred. Married, 43. Twenty years experience. Understand breeding, feeding, general farming. Have developed several 1,000 pound cows. Available December first. State wages. L. G. GLEIM, Arlington, Iowa. 16-2

Expert Holstein Cattleman desires position as manager of large Eastern or Southern farm or estate. Has bred Holstein cattle for 25 years, also fed and developed some of the highest record cows of the breed. Familiar with the best lines of Holstein breeding. Thoroughly experienced in the development and management of large farm or estate. Looking for position on salary and commission or straight salary basis. American, 46, married, no children. Address BOX 335, Care Hoard's Dairyman. 17-2

Experienced Farm Manager desires position on large dairy farm. Wife to cook for hired help. Best references. Address 2325 Ohio Ave, Madison, Wis. 17-2

Wanted—Farm or dairy work. Single, experienced. MEL KRAMER, Rocky River, Ohio.

Position Wanted—As manager or superintendent, dairy or pure bred stock farm. 36, married, 15 years experience in selecting, milking, feeding, fitting, showing Jerseys, Guernseys, hogs and farm. Steady and reliable. Permanent position if I prove my ability. One or two year contract. Prefer Jerseys and Southern States. Ready Jan. 1. High personal references. Am now employed as manager. Give full particulars. Address BOX 337, Care Hoard's Dairyman.

Herdsman open for position at once. Married, no children, age 25, experienced. College and practical education, life time as dairy farmer. Can furnish best references. State wages and requirements first letter. Address BOX 336, Care Hoard's Dairyman.

Wanted—Position as dairyman. Good herdsman, feeder, and calf raiser. Good in bottling and butter making. 3 years experience. Excellent references. AARON CASLEY, Plainsfield, Ill.

Single Man, age 37, wants position. Good test cow milker, feeder, and calf raiser. Knowledge of Babcock testing and butter making. Would combine dairy and poultry. Address BOX 333, care Hoard's Dairyman.

POSITIONS WANTED

Position Wanted—By an experienced farmer as farm manager, foreman or first class farm mechanic. Address BOX 339, care Hoard's Dairyman. 17-9

Dairyroom man wants work on up to date farm. Experienced. State wages etc., in first letter. Address BOX 338, care Hoard's Dairyman. 17-2

Wanted—Position as farm manager, or would take farm on shares. Best of reference as to ability, honesty. BERT TURNER, Libertyville, Ill.

Position Wanted as herdsman on small dairy; age 27, single, good feeder and dry hand milker, life experience in dairying and farming, best of references if necessary. Address BOX 341, care Hoard's Dairyman.

Two Good Records for Pinehurst Ayrshires

Pinehurst Farm Ayrshires are bred for production. Recently two more records above 500 lbs. fat were added to the list made by members of this herd.

Flossie's White Beauty, a five-year-old, gave 11,341 lbs. milk, 527.20 lbs. fat in 346 days for the Advanced Registry. In the Roll of Honor, 300-day production, she is credited with 10,662 lbs. milk, 491.90 lbs. fat; carrying a living calf 230 days of this period.

Hazel's White Belle, also a five-year-old, gave 14,077 lbs. milk, 577.67 lbs. fat in 347 days for the Advanced Registry. In the Roll of Honor she becomes the champion for her age with 13,265 lbs. milk, 541.69 lbs. fat; carrying a living calf 222 days of the 300-day period.

Pinehurst Farm is owned by Leonard Tufts, North Carolina.—Ayrshire Breeders' Association.

The Agricultural Experiment Station, University of Wisconsin, has just recently issued a bulletin dealing with "Contagious Abortion in Cattle", that will make a valuable addition to the dairy library especially on those farms where this disease has given trouble.

The subjects discussed are: 1, Prevalence of and losses due to cattle abortion; 2, Causes of abortion in cattle; 3, How abortion starts and spreads; 4, When and where the germs locate; 5, Results of abortion infection; 6, How to detect the disease; 7, What to do and how to do it; 8, Complications and sequels of abortion; 9, Practical suggestions for herd and stable management.

Write to Agricultural Experiment Station, Madison, Wis., for Bulletin No. 368.

Aunt Ada's Axioms: Thrift may be carried too far; it is better to put in a water system now for mother than to give her a fine tombstone a little later.

LARGE DAIRY, GENERAL PURE BRED STOCK, SPECIAL CROP FARM

One of the Best Farms in East Offered FOR SALE at Price that Insures Quick Sale.

Illness in family necessitates sacrifice 450 acres fertile crop land; verdant, well watered pastures; virgin timber; large, well kept buildings at little more than half its value. Buildings—Barns, hog house, poultry houses, tenant house, residence would cost $25,000 to build. Personal property valued at $15,000. Timber estimated worth $25,000. Farm will produce in normal year $15,000 to $20,000 crops and produce. Stocked with good dairy, some cows pure-bred, pure-bred poultry, pure-bred hogs. A large balanced business. 1 mile from 2 shipping stations; improved road runs through farm. Short haul to public market by truck: few hours to New York City by rail.

C. J. PLANCK, Binghamton, N. Y.

PERSONAL STATIONERY

200 SHEETS and 100 ENVELOPES $1.00

Printed with your Name and Address

Clear, white bond paper, with envelopes to match. Your name and address printed in beautiful, rich blue ink, on both paper and envelopes, and sent to you postpaid for only $1.00. (West of Mississippi river and outside of U. S. $1.10.) If inconvenient to send money, we will ship C. O. D.. Money returned if you are not more than satisfied. Order today. **Write name and address plainly.**

AGENTS MAKE BIG MONEY taking orders for us. Write us today for our agent's proposition.

ELITE STATIONERY COMPANY
7073 Main Street Smethport, Pa.

Home Farm Holstein Sale

One of the oldest and best known Holstein herds in the Middle West was broken up when the Home Farm herd owned by W. B. Barney & Sons, Iowa, was dispersed October 14. It was a herd well known for both good type and production and the sale brought buyers from Ontario, Missouri, Minnesota, Wisconsin, and Iowa.

Fifty-seven head sold for $13,810, an average just short of the $250 mark with $850 the top figure. Hollyhock Farms, Wisconsin, paid this for an 1100-lb. daughter of Sir Sadie Cornucopia.

Mack and Wood did the selling.

The following list includes those animals selling over $250 and buyers' names:

Leslie Ash, Minnesota	
Home Farm Prince Fobes	$350
Fredmar Farms, Missouri	
Sadie Whitebird of Home Farm	$435
Home Farm Sadie Vale Empress	625
Sadie Whitebird of Home Farm 3d	260
W. J. Elgie, Ontario	
Sadie Gerben of Home Farm	$550
Quoque Korndyke Sadie Vale 2d	450
Hollyhock Farms, Wisconsin	
Sadie Cornucopia Whitebird	$850
Sadie Fobes of Home Farm	500
Quoque Korndyke Sadie Vale	685
Chas. Otis, Iowa	
Home Farm Sadie Vale Lorella	$325
Sadie Whitebird of Home Farm 2d	275
State of Iowa	
Home Farm Sadie Vale Ebertje	$305
Home Farm Sadie Vale Clothilde	310
Otho Evans, Iowa	
Home Farm Ormsby Sadie Vale	$265
Peter Lund, Iowa	
Sadie Ormsby of Home Farm 2d	$295
L. W. Kennedy, Iowa	
Home Farm Ormsby	$250
Delos Matt, Iowa	
Home Farm Lorella	$260
Minnesota Holstein Co., Minnesota	
Home Farm Pietje Florence	$460
Harold Winterink, Iowa	
Sadie Cornucopia Gerben Maid	$295

Louisiana Dairymen Organize

HOARD'S DAIRYMAN:—The dairymen in the parishes of East and West Feliciana met at Lindsay, Louisiana, and organized the Feliciana Dairymen's Association.

The objects of forming an association were declared to be, first, to form the dairymen into a co-operative business organization, to facilitate the buying of feed, fertilizer, and equipment at quantity prices; and, secondly, to co-operate with other local dairymen's associations with the view of taking into consideration the predicament of the dairy farmer on account of the drought and to secure a fairer price for milk.

Few people realize that such crops as hay, oats, turnips, mangels, carrots, and clover, and all other crops which furnish winter feed for cattle, are 100 per cent failure, hence the farmer is brought face to face with the great hardship of buying all the feed necessary to produce milk until April, 1925. Such a condition is unprecedented and impossible unless the price of milk to the dairymen is improved.

MALCOLM DOUGHERTY, Sec.

Two California Holsteins Enter 1,000-lb. Class

Recent reports from the office of the Supt. of Advanced Registry of the Holstein-Friesian Association give notice of two more Holstein cows that have entered the ranks of the 1,000-lb. butterfat producers.

Helen Veeman Woodcrest, a 4-year-old bred and owned by F. M. Helm of California, produced 36,217.7 lbs. milk containing 1,003.86 lbs. fat (1,254.82 lbs. butter) in a year.

The next cow to qualify for this honor is Lady Korndyke Canary Johanna, also a 4-year-old, bred by F. S. Kenfield of Michigan, and now owned by L. B. Van Blaricom of California. She produced 27,274.6 lbs. milk containing 1,008.1 lbs. butterfat (1,260.12 lbs. butter) and is the 86th Holstein cow to produce in excess of 1,000 lbs. fat in a year.

Milk Record Sheets

For years Hoard's Dairyman has been preaching the necessity of keeping records of the production of each cow. Only by knowing how much milk each cow actually gives is the dairy farmer able to improve his herd. Our Book Department has various sizes of milk record sheets to make it easy to keep tab on your cows. Complete samples with price list will be sent for 5 cents in stamps. Address Hoard's Dairyman, Fort Atkinson, Wis.

Imported Melotte

with the *self-balancing* bowl. Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. Runs so easily, bowl spins *25 minutes* after you stop cranking unless you apply brake.



$7.50 After 30 Days FREE TRIAL

Catalog tells all—WRITE

Caution! U. S. Bulletin 201 shows that vibration of the bowl causes *cream waste!*

30 days' free trial — then, if satisfied, only $7.50 and a few easy payments — *and* — the wonderful Belgium Melotte Separator is yours.

Catalog FREE

Send today for free separator book containing full description. Don't buy any separator until you have found out all about the Melotte and details of our 15 year guarantee.

MELOTTE H. B. BABSON, U. S. Mgr. 2843 W. 19th St., Dept 28-58 Chicago

BULL BROS.

HOLSTEIN SALE!

Tuesday, Nov. 18

TERMS CASH

Owing to loss of barn by fire we must sell

70 Registered Females 70

Offering will include 50 heifers up to four years, all daughters of K. P. B. A. Fedora King, a proven grandson of King of the Pontiacs from Novelty Fedora Hengerveld, 1022 lbs. butter, 22,000 lbs. milk, 4 years; 800 lbs. at 2 years.

K. P. B. A. has daughters with 900 lbs. as 2-year-olds to 1100 lbs. at maturity.

These heifers have been raised on hay entirely; no ensilage has been fed on farm for past seven years, and they have passed their lives outdoors.

Herd is free from tuberculosis and is absolutely free from abortion, as the number of female offspring will prove—nearly 100 head sired by K. P. B. A. from an original herd of thirty-five head in five years.

Sale held at 10 o'clock, on farm 3 miles west on Yellowstone Trail, **ABERDEEN, S. D.**

The Old Reliable La Crosse County Guernsey Breeders' Association will sell

175 Registered and High Grade **GUERNSEYS**

West Salem, La Crosse Co., Wis., Nov. 26

THE DAY BEFORE THANKSGIVING

75 Registered Guernsey cows, heifers, and bulls. The choice of La Crosse and adjoining counties. A. R. cows with records of 500 and 600 pounds of fat as well as their sons and daughters.

100 High Grade Springing Guernsey cows and heifers. Young, big and good. All from Federal Accredited Herds or just tested. Send for catalog sale list and full particulars. A postal card will do it.

H. W. GRISWOLD, Sale Manager **West Salem, Wisconsin**

The Second and Biggest

GUERNSEY AUCTION!

of Meeker County Guernsey Breeders' Association

Dassel, Minn. At Fair Grounds, in Heated Pavilion. Sale at 10 A. M. **Nov. 11**

45 High Grade Cows, 5 Purebred Cows, Purebred Bulls of serviceable age

All stock T. B. tested in Meeker County. All stock in sale fresh, on or before sale date, or by Christmas after. Many have cow testing records and **HIGHEST PRODUCING COW IN MEEKER COUNTY CONSIGNED TO SALE.** Sale is on a holiday, so be there!

MEEKER COUNTY GUERNSEY BREEDERS' ASSOCIATION, Bank of Dassel, Clerk. Auctioneers: Marcus J. McQuire, Bernard Anderson. Sale Committee: Alfred Norin, Leo Baumgartner, A. B. Rayburn, Sales Mgr.

SALE of

Purebred Holstein Milk Cows

A FEW BULLS and WELL BRED HEIFERS

Herd Federal Accredited

SATURDAY, NOV. 15th

The offerings include the blood of S. P. O. M. 41st and Sir Bess Ormsby Fobes. An opportunity to buy at your own price.

This is a reduction sale to meet our milk requirements, as our milk trade is larger in summer than in winter.

Sale Commences at 1 P. M. at Farm No. 3

Write for Information

HOLLYHOCK FARMS, Dousman, Wisconsin

FRED SOUTHCOTT, Manager

Barron County Holstein Breeders' Annual Fall Consignment Sale, BARRON, WIS., NOV. 20 100 Head of Purebred and Grade HOLSTEINS—carefully selected

35 pure-bred females, the majority of which are due near time of sale. 20 high class young bulls from 7-day and yearly record dams. 45 high grade cows and heifers, the cows all have C. T. A. records of 275 lbs. of fat or over; the heifers are from dams with the same requirements; selected from Barron County's 10 Cow Testing Associations. Barron County has had two complete Area tests and is adjudged free from T. B. Cattle sold with a 60-day retest guarantee. A safe place to buy.

Selling force:—Krause, Scott, Hemmbrook

For Catalogs write: **ERNEST LE JEUNE,** **Rice Lake, Wisconsin**

GOODHUE COUNTY BREEDERS' SALE

60 - PUREBRED - 60

ZUMBROTA, Minn. **HOLSTEINS** **NOVEMBER 15th**

Goodhue County is one of the leading dairy counties of Minnesota and contains many noted Holstein herds. In selecting the cattle for this sale the committee has kept in mind the kind of cattle buyers are looking for and as a result this sale offers Holsteins of unusually high quality.

50 FEMALES

"TYPE" has been given first consideration in selecting these animals. Only good individuals have been considered.

"BREEDING"—Granddaughters of such bulls as "37th", Sir P. O. M., King Korndyke Colantha Ormsby, Sir Korndyke Bess, "Piebe" and Dutchland Creamelle Colantha Lad.

"AGE"—Only young cows, bred heifers and a few heifer calves.

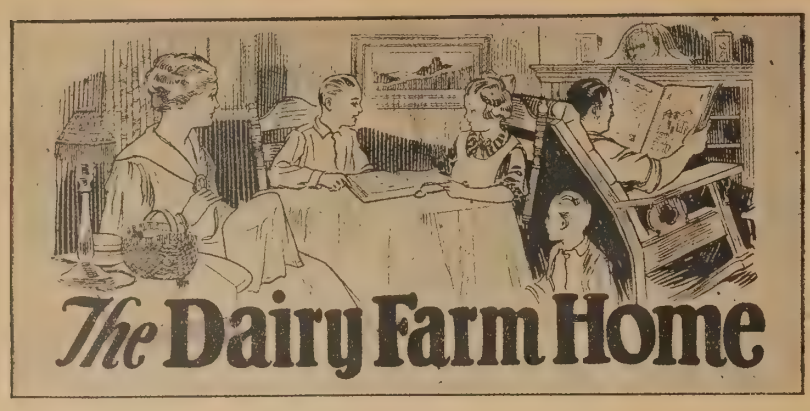
10 MALES

A BETTER LOT of bulls from the standpoint of type would be hard to find.

NEARLY ALL of them are ready for service.

All Cattle are tuberculin tested and selling with retest privilege. Send for descriptive Folder.

Twin City Pedigree & Service Co., Sales Mgrs., 211 Market Bank Bldg., Minneapolis, Minn. (Goodhue Co. Farm Bur. Cooperating)



LUCY THOMPSON

Fur Trimmings

There are quantities of fur going to waste in people's attics just because the pieces are out of style and so badly worn in spots that they are no longer presentable. It is just such pieces as these that are turning otherwise very plain dresses into smart, up-to-the-minute styles.

I was trying on ready-made tailored dresses last week and could not help thinking of the ease with which a medium-priced garment could be made to look expensive and different just by the addition of three or four small pieces of fur.

Many of the dresses this season are severely plain as to line. Some have the round necks that we are now used to, even though they are unbecoming to the "skinnies". Others have the straight, boyish, rolling collar but all have the same straight lines that we have been having. There are just enough exceptions to this rule to make us comfortable in the belted and gathered dresses if we happen to prefer them.

One of the pretty coat dresses I saw had a narrow band of fur across the back of the collar, one at each wrist, and a small square patch of it on either side of the back for the belt to slip through. This was a very expensive garment but it was the sort that could be duplicated again and again without the fur and that could be added at home—provided you have the old piece to make it from.

A lovely harmonious outfit could easily be made by not only trimming the dress but the hat with the same fur. It is being used in all sorts and shapes of little patches and some of the most attractive of these are just small triangular or round pieces sewed to a plain hat and made into the shape of a flower or other design.

Working with fur is no easy thing, neither is it impossible if you use care and remember always to cut the skin from the under side and use a sharp knife; a safety razor blade is good for this.

I saw a pretty neck piece the other day made from a worn-out piece of mink. There was just a straight piece of the fur about twelve inches by three or four. This was lined with brown silk which in turn was covered with brown chiffon. Sewed to either end of the fur was a piece of the chiffon, accordion-plaited, and about a yard long. The lower ends were finished with a small square of the fur.

The Across-the-road Barn

"It is just inviting an accident if there are small children in the family and the farm is on a main highway," said a woman lately. She was speaking of the custom of putting a house on one side of the road and the barns directly across.

"They run on all sorts of errands, dozens of times a day, from house to farm buildings and no one can expect a child to use the caution that an older person does. Traffic in the country knows no speed limit except that of the individual machine and drivers are not on the watch as they are in cities."

This is a point worth considering if you are thinking of building. It is not the only one, though. It has always seemed too bad to me when there is all out of doors to put the barns in that they are so often put right where they have to be looked at whenever the mother has a few minutes to sit on the porch or at the front window.

It is impossible to keep the stables immaculate and such dirt as must be there is right and in its place but just the same its place should be the background and not the front of the picture.

Past Finding Out

Skirts are really shorter. It makes me want to shout for there was no enjoyment in trying to walk in the long ones we have lately had and besides they were ugly on most of us.

There are always those who will say that if short skirts are good, knee length is better. That is the sort that always goes to the ugly extreme on everything and I shudder to think that we may soon be looking at the same bobbed skirts that we had a few years ago. That was war time and they said it was a saving in cloth. I wonder what the reason will be this time.

The whims of our sex with regard to clothing have always been a source of amusement to the men, but James J. Montague mixes his with resignation in this poem:

"I do not know why women choose
To hobble 'round in high-heeled shoes.
And it is none of my affair
If they unbob or bob their hair.
I only know that they will do
What menfolks don't expect 'em to.

I do not know why women change
Their clothes to fashions new and strange,
With curious backs and funny fronts,
And always change them all at once.
I only know a woman can,
Whene'er she likes, outguess a man.

I do not know why turtles sleep
Upon the surface of the deep,
The casual looker-on would think
That heavy brutes like that would sink.
But turtles lead their own sweet lives
And so do widows, maids, and wives.

Cheering Up the Winter Days

In the one-room school I used to attend we debated every so often about whether more enjoyment was derived from looking forward to possessing a thing than from actually possessing it; in other words, "Resolved that the pleasures of anticipation are greater than those of realization."

In the matter of bulbs I think that there is as much to say on one side as on the other, for I have always enjoyed tremendously watching them come on. About the first of November I usually start my old reliables, the paper white narcissus, for Christmas blooming and while this cannot be calculated exactly you can be reasonably certain that seven or eight weeks is long enough to allow.

I once saw some bulbs sending out perfectly glorious blossoms from the cut-out top of an old teakettle which was so ugly that it almost seemed to belittle the flowers though it was better to have them there than not to have them at all. For ten cents you can get glass or pottery bowls or the old fashioned little crocks which, in a plain putty color, are quite artistic.

Fill these three-fourths full of shells or pretty stones, put in enough stones to cover the bulbs loosely and fill the jar with water, being sure not to let it come over the stem end of the bulbs.

Set in a cool, dark place for a couple of weeks, then bring to the light for about two days, and then set in the sun, being sure always to have enough water on them.

Bulbs potted in earth take more time in the blooming but the procedure is about the same as when water is used. They should be left in the dark for from four to eight weeks. After bringing them out the time required for blooming is three to six weeks. This applies to the tulips, jonquils, narcissus, hyacinths, and all similar bulbs.

In Starting the Meeting

Many of our club meetings are a little stiff at the first calling to order. We would like to have them pleasant and sociable yet it is desirable to have enough seriousness to make them dignified and when we get serious we are apt to be formal and not at ease with our fellow members.

It might not fit your particular club at all but there are many meetings that are most suitably called to order with a little prayer. I don't know how you feel about it but I think that the average woman is pretty hard put to it if she has to make a public prayer of even two sentences. That is no reflection on her religion, either, but she is used to saying her prayers privately and her public appearance frightens her.

There is a Miss Mary Stewart of Washington, D. C., who has written a prayer which has been used widely by club women. It has nothing in it to offend the religion of anyone and it breathes a true sincerity of desire that is inspiring on days when, in spite of ourselves, we find we are centering our attention on the mean, small things instead of on the good. It is easy to learn and could be repeated in unison.

"Keep us, oh, God, from pettiness; let us be large in thought, in word, in deed.

"Let us be done with fault-finding and leave off self-seeking.

"May we put off pretense and meet each other face to face—without self-pity and without prejudice.

"May we be never hasty in judgment and always generous.

"Let us take time for all things; make us grow calm, serene, and gentle.

"Teach us to put into action our better impulses, straightforward and unafraid.

"God grant that we may realize that it is the little things that create differences, that in the big things of life we are as one.

"And may we strive to know and touch the great, common woman's heart of us all and oh, Lord God, let us not forget to be kind."

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2214—Pretty Apron. Cut in sizes small, medium, and large. The medium size takes 2 yards 36-inch material with 7 yards of trimming.

No. 2210—Simple Daytime Model. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 takes 3⅝ yards 36-inch material with ⅞ yard 32-inch contrasting.

No. 1164—Suit for Small Boys. Cut in sizes 2, 4, 6, and 8 years. Size 4 takes 1⅝ yards 36-inch material.

No. 2209—Slenderizing Lines. Cut in sizes 36, 38, 40, 42, 44, 46, and 48 inches bust measure. Size 36 takes 4⅝ yards 40-inch material with ¾ yard 32-inch contrasting.

No. 2125—One-Piece Dress for Girls—see diagram. Cut in sizes 2, 4, 6, 8, 10, and 12 years. Size 8 takes 1¾ yards 32-inch material with ¼ yard 18-inch contrasting.

No. 1922—For Informal Afternoon Wear. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 takes 3 yards 40-inch material.

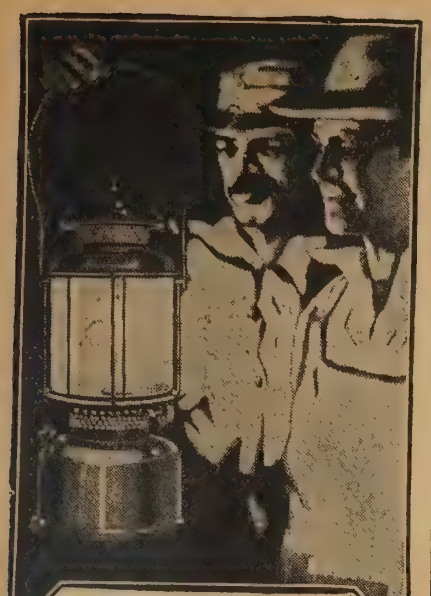
No. 2208—New Fall Style. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3¾ yards 40-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Mrs. Jones: My husband ran a tank during the war and now he can't even run a vacuum cleaner for me.—Good Hardware.



"Tom, here's a real light—

—you ought to get one. It's the COLEMAN QUICK-LITE. The handiest, best all-round lantern I ever saw or used. Look at the light it gives—300 candle-power strong! That's more light than you get from 20 old-style oil lanterns. Does n't cost much to use, either. And it's right on the job *all* the time."

Use It Everywhere!

Just the light for night chores around the barn, feed lot, dairy and orchard; for night hauling, harvesting, ditching, road grading — any place, any time.

Here's Why You'll Like It!

The QUICK-LITE is safe—can't spill fuel even if tipped over. Can't blow out. Has wind-proof and rain-proof mica globe. Lights with matches! Built of durable brass and steel, heavily nickeled. Inspected, tested and guaranteed. Will last a lifetime.

Price $7.50 (W. of Rockies $8.00). If your dealer can't supply you, write us. Address Dept. H. D. 42.

The Coleman Lamp Co.
Wichita, Kansas
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Coleman Quick-Lite
REG. U. S. PAT. OFF
"The Light of a Thousand Uses"



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ANTI-COW KICKER

Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H. Topeka, Kansas

Friendly Talks for Farm Folks

Yo ho! a bottle of milk and a cheese sandwich! What more can any man, dairyman, or banker desire for Sunday night supper than these?

⚜

Speaking of celebrities and their titles, how many pure-bred calves born this year have been christened the Prince of Wales?

⚜

Aunt Jane Ferkin states that if more young mothers of this generation would use a club on their offspring instead of joining one, the coming generation might not take it into its head to murder and steal and act so utterly outlandish as the papers say they do.

⚜

Walt Whitcomb says that he would be almost willing to make a will and then die if he could be certain that by so doing his relict would find one lawyer in this much-lawed world who would settle up his estate in six months instead of the customary six or sixteen years.

⚜

Farmers are certainly having a lot done for them of recent years and it is to be hoped that they appreciate it. The farm bureau tells them how to farm scientifically; the weather bureau goes out of its way to give them daily forecasts which five times out of ten are nearly accurate; the experiment stations send them lengthy bulletins which are supposed to be read with profit during the long evening hours; the radio carries the advice and assurance of political and otherwise friends who always have a vast concern in the doings of the farmer; the merchants and chambers of commerce have regular dollar days wherein the farmer is permitted to move slow goods at regular prices; and in many other ways too numerous to mention, the kind old world keeps everlastingly seeing to it that the old farmer is not frogotten or left forlorn at its hands. To make a long story short, the world will do everything for the farmer except help him with his dirt farming and agree with him that a dollar honestly earned should be paid him for his produce. Isn't it the truth?

⚜

We have often wished that it would be practicable for provision stores or dairy shops to keep glass churns in their windows for the making of butter before the eyes of city butter-consumers. Perhaps this is already done in the large centers—it would surely be an interesting process to watch for the average person. The coming of butter to us has always seemed one of those strange and wonderful things which weekly repetition never stales.

⚜

Some folks love apples best just as they come juicy and red from the tree; others think that apple cider is about the best natural brew on earth; some, on the other hand, can't see an apple except under the warm cover of a fragrant, spicy pie; while there are those who couldn't sit down to the table in winter without bread spread thick with flavorsome butter boiled down sweet from tree-fruit. But any old way—if the Literary Digest or Hoard's Dairyman or the Ladies' Home Journal, et al should take a straw vote of this country's favorite fruit, the returns would be pretty sure to be overwhelmingly decisive in favor of Friend Apple. As Lincoln once said about the common people, to paraphrase a bit—"The Lord must have known how well His folks were going to love apples, as He made them to grow in every ordinary orchard from Portland to Portland."

New York. HELEN S. K. WILLCOX.



1 teaspoonful equals 2 of many other brands-
That's why

CALUMET
THE WORLD'S GREATEST
BAKING POWDER

Is most economical—goes farther and lasts longer.

Never use heaping spoonfuls when you bake with Calumet—Use level spoonfuls because it contains more than the ordinary leavening strength. No other baking powder will produce bakings at such a low cost.



Best by Test

EVERY INGREDIENT USED OFFICIALLY APPROVED BY U. S. FOOD AUTHORITIES

SALES 2½ TIMES THOSE OF ANY OTHER BRAND

WINSLOW

SOME buyers of milk bottles still believe that all milk bottles are nearly alike. *But nothing is further from the facts.*

Winslow bottles have definite advantages in strength, in uniform thickness, in clarity of glass, in accuracy of measurement. These advantages are decidedly ***real*** to buyers of Winslow bottles. The dealer reduces his milk bottle costs—and the consumer is better satisfied.

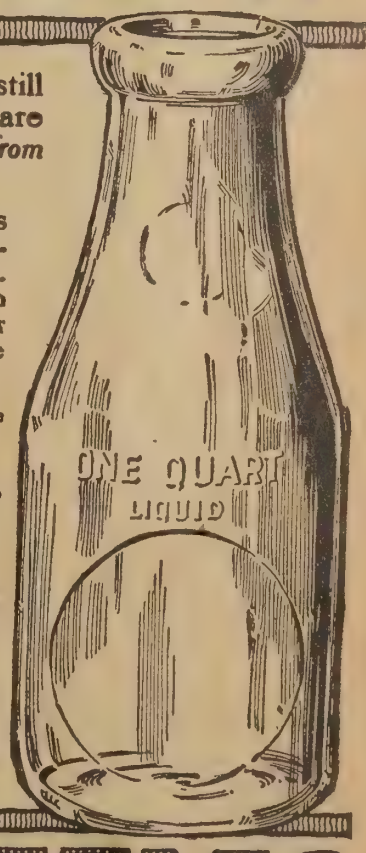
Whether you buy milk bottles by the dozen or the carload, write for sample bottle and prices.

THE WINSLOW GLASS CO.
741 Southwood Avenue COLUMBUS, OHIO

WINSLOW MILK BOTTLES ARE CARRIED IN STOCK BY THE FOLLOWING:

The Creamery Package Mfg. Co., National Distributors, Chicago, Illinois
Branches: Atlanta, Boston, Buffalo, Denver, Jersey City, Kansas City, Minneapolis, Omaha, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, St. Louis, Toledo, Waterloo, Ia.

E. B. Adams Company, Washington, D. C.
Ohio Creamery Supply Co., Cleveland, O.
J. S. Rayl Company, Marion, O.
K. J. Madden, Cincinnati, O.
The E. F. Mangold Company, Dayton, O.
Lampton-Crane & Ramey Co., Louisville, Ky.



MILK BOTTLES

UNION CARBIDE

Niagara lights the farm

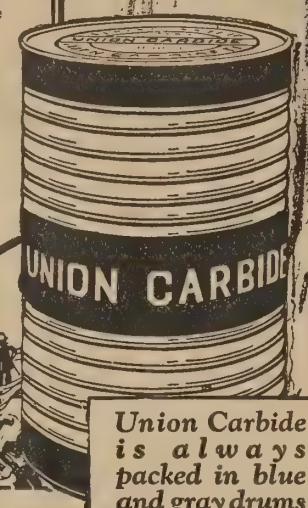
AT NIAGARA FALLS, New York, is located one of the immense works in which Union Carbide is made.

From these works Union Carbide is shipped to 175 direct factory warehouses and from them direct to thousands of farms lighted by Union Carbide.

The power of Niagara is used in producing this granite-like material, and the almost unbelievable temperature of 6026° F is required in the furnaces! (Water boils at 212° F, steel melts at about 2500° F.)

Hundreds of thousands of farm homes depend on the continued operation of this and other great Union Carbide works for their "artificial sunlight." And thirty years of service have proved that the Union Carbide supply is as dependable as Niagara herself.

But these thirty years have proved more than Union Carbide's dependability. They have demonstrated that it yields the largest amount of pure, clean gas, with highest illuminating power. They have seen the growth of Carbide-gas lighting and cooking, from its discovery to a place in 409,000 farm homes!



Union Carbide is always packed in blue and gray drums

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More Milk—More Beef



Feed Home-Grown Crops

Stop that monthly feed bill. The Letz Dixie will cut, grind and mix anything grown—makes a perfectly balanced ration from home-grown crops. Guaranteed to increase production from 15 to 30% and cut feeding costs 25 to 50%. A warehouse in every state.

Write for copy of new Letz Feeding Manual describing Letz System of Home Crop Feeding. A valuable addition to your library.

LETZ *America's Leading Feed Mill*

1111 East Road
Crown Point, Indiana

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wisc.

MILCH COWS IN 1860

L. L. SCRANTON, ILLINOIS

"THE opinions of practical men differ widely as to the comparative merits of this (Jersey) race and its adaptation to our climate and the wants of the farmers. The most common decision prevailing among many even of the best judges of stock appears to be that, however desirable the Jersey cows may be on the lawn or in a gentleman's park, they are wholly unsuited to the general wants of the practical farmer".

In self-defense, I hasten to add that these are not my sentiments, but a paragraph copied from an old book copyrighted in 1860 which, according to the title page, treats of: "Milch Cows and Dairy Farming, comprising the breeds, breeding, and management in health and disease, of dairy and other stock; the selection of milch cows with a full explanation of Guenon's method; the culture of forage plants, and the production of milk, butter, and cheese; embodying the most recent improvements and adapted to farming in the United States and British Provinces, with a treatise upon the Dairy Husbandry of Holland; to which is added Horsfall's System of Dairy Management, with a full statement of the symptoms and prevention of pleura-pneumonia." Quite a comprehensive and inclusive title, it seems, covering the entire field.

What an era of progress and advancement in the dairy industry has passed since the publication of this old book. The breeding of dairy cattle in this country was still mostly in the experimental or "accidental" stage. The breeders were just beginning to distinguish the abilities of the different breeds, which led to the development of the dairy and beef types that are so widely different in anatomy and function today. The Guernsey breed as we know it is not referred to in the book. The Holsteins are referred to briefly as a conglomerate race of Dutch cattle of various colors, while the Jerseys had not yet established themselves as a dairy breed of any practical importance, so the author states.

The only dairy breed that the author considered of sufficient importance to give its merits much space for discussion was the Ayrshires. As early as 1815, he writes, the Ayrshires had been completely changed from what they were in 1770, from a breed of "diminutive size, ill fed, ill shaped, —mostly black in color, with large stripes along the chine and ridge of their backs about the flanks and on their faces—high, crooked horns—and yielding a scanty flow of milk" to a breed "with fixed characteristics, distinguished especially for an abundant flow and a rich quality of milk".

So enthusiastic is the author over the Ayrshires that he unhesitatingly puts them at the head of the class "for the reason that it is preeminently a dairy breed, surpassing all other pure breeds in the production of rich milk and butter on soils of medium fertility, and admirably adapted, in my opinion, to raise the character of our stock to a higher standard of excellence. The best milkers I have ever known in the course of my own observations, were grade Ayrshires, larger in size than the pure bloods, but still sufficiently high grades to give certain signs of their origin." The author quotes another writer to substantiate his remarks, who says that "for purely dairy purposes, the Ayrshire cow deserves first place—all dairy farmers who have any experience on the point agree in stating that an Ayrshire cow gives generally a larger return of milk for the food consumed than a cow of any other breed."

The records of some of the best Ayrshire cows of that time are interesting when compared with Garclaugh May Mischief's record of 25,329 pounds of milk in a year or with Lily of Willowmoor's five-year record of 84,991 pounds, or many of the other high producers of the present day. "One of the four cows originally imported into this country by John P. Cushing Esq. of Massachusetts, gave in one year 3,864 quarts, beer measure, or about 966 gallons at 10 pounds to the gallon. Youatt estimates the average Ayrshire at 600 gallons per cow per ear. Aiton sets the average of the best cows at 1,000 gallons. Mr. Rankin puts it lower, at about 650—700 gallons per cow—and on his own farm of inferior soil his dairy produced an average of 550 gallons only."

The author of the book, however, recognizes the ability of the Jersey cow to produce butterfat by advising, with a great deal of caution, that a few Jerseys be added to the herd if the making of butter is the object of the dairyman. "The place of the Jersey cow is rather in private establishments, where the supply of cream and butter is a sufficient object, or in limited numbers to add richness to the milk of large butter dairies. Even one or two good Jersey cows with a herd of 15 or 20 will make a great difference in the quality of the milk and butter of the whole establishment; and they would probably be profitable for this, if for no other reason."

That the Devons have never been noted as a dairy breed, the author blames upon the breeders themselves in selecting for beauty and symmetry of form instead of emphasizing the mammary development. He answers any claim the Devon breeders may make in this manner: "The fairest test of its fitness for the dairy is to be found in the estimation in which distinguished Devon breeders themselves have held in this respect. A scale of points of excellence in this breed was established, some time ago, by the best judges in England; and it has since been adopted with but slight changes in this country. These judges, naturally prejudiced in favor of the breed, if prejudiced at all, made this scale to embrace one hundred points, no animal to be regarded as perfect unless it excelled in all of them. Each part of the body was assigned its real value to the scale. If the animal was defective in any part, the number of points which represented the value of that part in the scale was to be deducted pro rata from the hundred in determining its merits. But in this scale the cow is so lightly esteemed for the dairy, that the udder, the size and shape of which is of the utmost consequence in determining the capacity of the milch cow, is set down as worth only one point; while, in the same scale, the horns and ears are valued at two points each, and the color of the nose and the expression of the eye are valued at four points each. Supposing, therefore, that each of these points were valued at one dollar each, and a perfect Devon cow was valued at one hundred dollars; then another cow of the same blood, and equal to the other in every respect except in her udder, which is such as to make it certain that she can never be capable of giving milk enough to nourish her calf, must be worth according to the estimates of the best

Devon breeders, ninety-nine dollars!!! It is safe, therefore, to say that an animal whose udder and lacteal glands are regarded, by those who best know her capacities and her merits, as of only one quarter part as much consequence as the color of her nose or half as much as the shape and size of her horns, cannot be recommended for the dairy. The improved North Devon cow may be classed, in this respect, with the Hereford, neither of which has well developed milk vessels —a point of the utmost consequence to the practical dairyman."

Indiana Jersey Sire Proves His Worth

His Daughters Won Three Silver Medals and Two Gold Ones

The daughters of Sophie's Torono are gradually proving their metal through the agency of the official test, and we are now able to report that sixteen of his daughters appear in the Register of Merit, and of this number three have won silver medals and two have won gold medals. Sophie's Torono is therefore a silver medal sire and the first Indiana Jersey bull to qualify for this honor. In addition to this, four of his sons have also proved their ability and are in the Register of Merit together with the large number of their tested daughters.

The three daughters of Sophie's Torono that have met the silver medal requirements, and made him a silver medal sire, acquitted themselves as follows:

Sophie's Torono's Daisy won a silver medal on her second test by producing, with calf, 688.97 pounds fat and 12,413 pounds milk in 365 days as a senior three-year-old. She was also tested at two years, five months of age and yielded 437.55 pounds fat. At four years and eleven months she was tested for the third time and produced 641.42 pounds fat.

Sophie's Torono's Hager was the second daughter to qualify for a silver medal. She was tested at three years, one month of age and produced 679.78 pounds fat in 365 days, carrying calf for 248 days of the test.

Sophie's Torono's Hester is the third daughter that completed the requirements for a silver medal for Sophie's Torono. In her test, commenced at four years, eleven months, she produced 796.20 pounds fat and 14,055 pounds milk in 365 days. On this splendid record she won both a gold and a silver medal which have been awarded by the American Jersey Cattle Club.

All of these young and promising producers are now owned by Randleigh Farm of New York.

Sophie's Torono is over twelve years of age, and is still strong and vigorous and giving good service. He is now owned by Mr. L. McNutt of Idylwilde Stock Farm, Indiana.—American Jersey Cattle Club.

Remedy for Sucking Yearlings

HOARD'S DAIRYMAN:—Page 49 in your issue of July 25 contains a question about sucking yearlings. I have had a lot of trouble of that kind and have been driven to using a halter with a sheet iron roofing about 8"x13" fastened to the strap across the face by means of three loops of soft galvanized wire. After G. T. T. has seen one worn for a week he will know better what size and trim will serve his case best.

Almonte, Ont. A. D.

A Correction

HOARD'S DAIRYMAN:—In your October 17th issue you report that milk price being paid by condenseries at Hartford, Wis., for the month of September was $1.50 for 3.5% test. This is incorrect, as during September we paid $1.60. WESTPHAL & SONS MILK PRODUCTS CO.

Aunt Ada's axioms: The easiest way to learn the rules of the game of life is to obey the rules of play; even a croquet set helps.

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



THE H. H. MILLER INDUSTRIES CO., CANTON, OHIO
successors to Chas. Skidd Mfg. Co. Janesville, Wis.

BOWSHER'S
HEAVY-DUTY GRINDERS



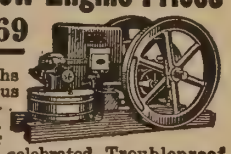
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Crush and grind all the grains that grow; **fine** for hogs or coarser for cattle feeding, **Corn** in husk, **Head Kafirs,** and all **small grains.**
Strength, Durability and **Service** radiate from every line of these Masterful Grinders. Simple, yet effective in adjustment. **Last a lifetime.**
LIGHT RUNNING — LONG LIFE — EXTRA CAPACITY
CONE-SHAPED BURRS
10 sizes—2 to 25 H. P. or more. Also Sweep Mills. It pays well to investigate. Catalog FREE.
The N. P. D. Bowsher Co., South Bend, Ind.

ALFALFA HAY

We are now baling our surplus alfalfa. If you would like a carload place your order now. Market prices.

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Fort Atkinson, Wis.

NOW! New Low Engine Prices
Only $5.69
a month for a few months—easy to own the famous standard WITTE Engine. Uses Kerosene, Gasoline, Distillate or Gas. Equipped with celebrated Troubleproof WICO Magneto. Simplest and cheapest to operate. New device makes starting easy. 50% surplus power. Sizes 2 to 25 H-P—all styles. Sold direct from factory to you on NINETY DAYS' FREE TRIAL. Write today for my new illustrated engine book—sent absolutely Free. No obligation to you.



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1642 Empire Building, - - PITTSBURGH, PA.

SEND ONLY $1



A cow stanchion made the Kalamazoo way—strong, practical, durable, economical, yet priced remarkably low.

Kalamazoo Cow Stanchions

Strongly built of clear hardwood; well bolted; swings when cow is in stanchion; locked open when cow is entering. **$2.50 each. Send $1** and we will ship as many as wanted. Pay balance after examination. Order today or write for literature.
Kalamazoo Tank & Silo Co., Dept. 633 Kalamazoo, Mich.

4 FORD questions *asked every day*

HERE ARE THE ANSWERS



QUES. How can I minimize carbon deposit in my Ford engine?

ANS. Ford owners who use Gargoyle Mobiloil "E" frequently report running 10,000 and even 20,000 miles without taking off the head. The reason for this is that when Mobiloil "E" reaches the combustion chamber and burns, it leaves only a very light, fluffy soot, most of which is blown out through the exhaust.

QUES. How can I overcome "chattering"?

ANS. Gargoyle Mobiloil "E" gives all the freedom from "chattering" that can be secured from a *high-grade, pure petroleum* lubricating oil. "Chattering" is usually due to incorrectly adjusted bands or worn out linings, and is aggravated by the mixture of unburned fuel with the lubricating oil. When Mobiloil "E" is used from the beginning (when the band linings are new) little trouble from "chattering" will be experienced.

QUES. How can I avoid overheating—particularly when it is necessary to use low speed continuously?

ANS. One most common comment of Ford owners who use Mobiloil "E" is that they enjoy marked freedom from overheating. This is because the scientifically correct body and character of the oil enable it to resist to an unusual degree the heat developed under any condition of operation.

QUES. Isn't it true that I may get better results by using a heavier-bodied oil?

ANS. Serious damage may accompany the use of oil heavier than Mobiloil "E". Your primary need is to adequately protect every moving part. Mobiloil "E" reaches every friction surface and protects your Ford regardless of its age or the mileage which it has covered.

For the differential of your Ford car use Gargoyle Mobiloil "CC" or Mobilubricant as specified by the Chart of Recommendations.

Domestic Branches:

New York (*Main Office*)	Buffalo	Detroit	Minneapolis	Pittsburgh	Rochester
Albany	Chicago	Indianapolis	New Haven	Philadelphia	Springfield, Mass.
Boston	Dallas	Kansas City, Mo.	Oklahoma City	Portland, Me.	St. Louis
	Des Moines	Milwaukee	Peoria		

VACUUM OIL COMPANY

How Good Railway Service is Benefiting the Farmers

STRIKING proof of the great value of **good and adequate** railway service is given by the way this year's grain movement has been handled. The prices of grain began in June to advance rapidly. Between June 2 and October 7 the cash price of wheat in the Chicago market advanced from $1.10 to $1.50 a bushel; corn from 77½ cents to $1.12½; oats from 47½ to 56½ cents; rye from 67½ cents to $1.31½.

The farmers desired to ship their grain rapidly to take advantage of these rising prices. **The railways were all ready to handle the business. They had moved more freight cars to the west last spring for grain handling than ever before.** They have kept on moving cars west as fast as they have been needed. They have given the farmers the best service in handling grain that was ever known.

Record-Breaking Movement of Grain

In the seven weeks ended September 27 the railroads loaded 460,000 cars with grain and grain products. This is 121,500 more than in the corresponding weeks of 1919; 157,000 more than in 1920; 61,000 more than in 1921; 84,000 more than in 1922, and 87,000 more than in 1923.

The United States Department of Agriculture said in a recent bulletin: "Movement of wheat has been heavy and accomplished with no little credit to the railroads." Eugene Meyer, Jr., Managing Director of the War Finance Corporation, said: **"Railroad efficiency in moving the crop has been without precedent."**

Good Service Depends on Fair Rates

When people are disposed to criticise freight rates, should they not stop and think that the kind of service the railways can give depends on the rates they are allowed to charge and the earnings they make?

Freight rates were reduced in 1922. There has been a strong demand since then for additional reductions in the rates on farm products. If these reductions had been made, the railways would have been crippled financially. They would not have been able to raise capital with which to buy many new locomotives and cars. They would not have been able to put and keep the locomotives and cars they already had in good condition. There would have been a "car shortage." Many thousands of farmers would not have been able to ship their grain and take prompt advantage of the higher prices.

Many New Locomotives and Freight Cars

But the reductions in rates sought since 1922 have not been made. In consequence, the railways have been able to buy large numbers of new locomotives and cars. In the year 1923 and in the first seven months of 1924, they bought 5,145 new locomotives and 271,397 new freight cars. They also spent a large amount of money in improving and increasing the capacity of their tracks and terminals.

These are the things that have made it possible for the railways this year to give the farmers better service than ever before in handling the crops. The benefit the farmers are deriving from this good service is worth many millions of dollars more to them than any reductions of rates that were proposed would have been.

How Good Service Can Be Continued

The kind of service the railways will be able to give the farmers will depend in future, as it has in the past, upon the way they are regulated. In order to continue to give good service the railways must be allowed to charge rates which will enable them to earn enough to pay their operating expenses, taxes, and a fair return on the value of their properties as found by the Interstate Commerce Commission in accordance with the law.

In the year 1923 their operating expenses per mile were 110 per cent more than in 1913 and their taxes per mile 162 per cent more. Rates cannot be safely reduced until operating expenses and taxes are reduced. The Railways for some years have paid more taxes than they have paid in return to their owners.

This is one of a series of advertisements published to give the farmer authentic information about railroad matters. Any questions that you would like to ask will be cheerfully answered. Address:

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS

650 Transportation Building, Chicago, Illinois

S. M. FELTON, President, Chicago Great Western Railroad,
L. W. BALDWIN, President, Missouri Pacific Railroad,
RALPH BUDD, President, Great Northern Railway,
H. E. BYRAM, President, Chicago, Milwaukee & St. Paul Ry.,
W. H. FINLEY, President, Chicago & North Western Railway,
CARL R. GRAY, President, Union Pacific System,
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Mention Hoard's Dairyman when calling on your dealer or writing advertisers

POULTRY On The DAIRY FARM



O. A. HANKE

Artificial Lighting for Poultrymen

The use of artificial lights as a means of stimulating winter egg production has been a great aid to poultrymen toward increasing the profit from poultry keeping. More poultrymen each year are availing themselves of this new method of increasing fall and winter egg production.

The electric light is the best of all for cost of operation, efficiency, and labor involved in caring for it. The benefits of artificial lighting are realized because of the increased amount of feed consumed due to a greater feeding period. In order to attain greater production it will be necessary to feed more whole grain for maintenance, or the body of the fowl will be depleted due to the strain of increased production.

Lighting and Feeding Pullets

Leghorn pullets should receive about 14 lbs. of grain per 100 birds daily and pullets of the heavy breeds, such as Rocks and Reds, slightly more. Pullets should not be placed under lights before Nov. 1st or the heavy early fall production will make it almost impossible to hold the birds in high producing condition through the winter.

Lighting of the hens should not be started before January 1st so that the hens may have time to finish the fall molt and regain their body weight. The regaining of the body weight is essential to satisfactory results in the breeding pen the following spring.

Installing the Lights

It is impossible to have electric lights in the hen houses in some localities, since not all rural communities have electric light lines passing by. There are several good home lighting units on the market which are not so expensive, when the home comforts due to lights are considered besides the extra profits from the layers. Under ordinary conditions a flock of 500 layers should pay for such a light plant in two seasons.

When installing the lights in the house, care must be exercised so that the perches are not in a shadow, otherwise the birds will not all come down on the floor. There must also be sufficient light so that the grain in the litter can be seen. Two 40-Watt lamps should be placed in each 20'x20' house.

Systems of Lighting

Two methods of lighting have proven most popular to date. Morning lights are superior to evening lights or to a combination of morning and evening lights. With morning lights there is less labor involved. This part should appeal to the farmer. With this system a thermos bottle type waterer should be used. Put hot water in it when grain is fed at night. This will not be frozen in the morning and the hens can drink; since an egg is 67% water, water is quite essential. Morning lights should be run from 4:00 a. m. until sunrise. With morning lights, grain should be fed four times daily in a deep litter, viz., 4:00 a. m., 8:00 a. m., 1:00 p. m., and just before dusk. The heaviest feeding must be made at dusk and 4:00 a. m. The morning feed may be thrown into the litter just after dusk.

With the evening lunch method the lights are turned on at 8:00 p. m. with a heavy feed of grain and fresh water available. This method reduces lighting expense and gives the birds more rest.

Birds should not be given more than fourteen and one-half hours of light as more than this will break them down. When operated wisely, lights are very profitable, the cost per hen per season being about five cents—the price of one egg.

The chief value of artificial lighting to the farmer lies in the fact that more eggs are produced during the season of highest prices. Probably no more eggs are laid per year but more of them are laid in the season of highest prices, making the net income per bird greater. If the farmer with a flock of fine chickens uses lights, he will probably be getting a good egg crop when egg prices are highest this winter.



Bulletins of the Week

Sewerage Systems for Farm Homes, by N. S. Fish, E. G. Hastings, and F. R. King. Circular 173, Extension Service of the Wisconsin College of Agriculture, Madison, Wis.

Summer Annuals for Hay in Connecticut, by B. A. Brown. Bulletin 120, Storrs Experiment Station, Storrs, Conn.

A Statistical Study of Egg Production in Four Breeds of the Domestic Fowl, by L. C. Dunn. Bulletin 117, Storrs Experiment Station, Storrs, Conn.

Hitching Horses to Get the Most Work Done, by E. W. Lehmann and E. T. Robbins. Circular 283, Illinois Experiment Station, Urbana, Ill.

Contagious Abortion in Cattle, by F. B. Hadley. Bulletin 368, Wisconsin Experiment Station, Madison, Wis.

Success With Wisconsin Dairy Cows, by G. C. Humphrey. Special Circular, Agricultural Extension Service, College of Agriculture, Madison, Wis.

Select Cure Test Seed Corn, by R. A. Moore and E. D. Holden. Circular 58, Extension Service of the College of Agriculture, Madison, Wis.

Drain the Wet Land, bulletin published by the International Harvester Co., Harvester Bldg., Chicago.

Udder Diseases of Dairy Cows, by H. Bunyea. Farmers' Bulletin 1422, U. S. Dept. of Agr., Washington, D. C.

Care and Management of Dairy Bulls, by J. R. Dawson. Farmers' Bulletin 1412, U. S. Dept. of Agr., Washington, D. C.

Dairying in Southern California

(Continued from page 500)

er's first thought, but upon examination it appears to meet local conditions, despite admitted evils. In addition to making possible profitable operation upon very high priced land, it enables the fast-working dairyman to choose his requirements with the minimum of effort and in the least possible time creates a cash market for the wanted type of animals and tends to stabilize prices. The largest auction company guarantees the production of every cow sold and allows buyers the privilege of keeping any animal at the sale yard three days, in order to test the milk yield before finally accepting her.

Formerly the undesirable aspects of the system were more prominent than at present. Sellers were less concerned with the welfare of the buyers; dealers frequently turned over to auctioneers questionable cows, many of which were sold to inexperienced or newly-arrived dairymen. These buyers in turn were all too frequently "sold out", through desire or necessity, and the process repeated.

Now the dairy business is upon a more substantial basis and there are less true "disposal sales". The attitude of the auctioneers in respect to both this and the tuberculosis evil has been that they were acting merely as agents for owners or dealers and therefore were not responsible for results.

One factor which has contributed to improvement of conditions is the fact that a large percentage of Southern California dairymen are Americans, with a few Hollanders and Swiss, but nothing like the proportion of foreigners found in northern and central parts of the state. Southern California, therefore, is the only large section of the Golden State where the auction system could have grown to its present proportions. The average Portuguese or Italian dairyman does not readily adapt himself to this speedy business method.

It will readily be seen the auction system is by far the most important factor in the dairy industry of the Los Angeles district. It is not surprising, therefore, to find an auctioneer—"Colonel" Ben A. Rhoades—the outstanding figure in the milk industry of Los Angeles County it not in the entire southern part of the state.

Rhoades is president of the California Milk Producers' Association, said on reliable authority to control 80 per cent of the milk consumed in a district embracing 1,000,000 inhabitants. This concern did a business during the past year of more than $6,000,000. In addition to handling the milk of its members, the association controls a large creamery and distributing company. Its offices are maintained in the same building as those of the auction firm and a subsidiary supply company, while the finance company is equally close in its alliance. The Dairymen's Feed and Supply Company, the subsidiary organization, does an annual business of about $1,500,000.

The power involved in this interlocking plan is quite apparent and has been the cause of much criticism of Colonel Rhoades and the entire system he represents. However, although the veteran auctioneer is said to have amassed a large fortune from his various personal enterprises, he has promoted these organizations along co-operative lines. His popularity and the loyalty of his many friends are unquestioned.

Originally the junior partner in his father's firm and now assisted by his son, Harold, "Colonel Ben" has been active in the ring for more than 25 years, and is still very proud of his ability to cry sales for five or six days at a stretch, as he has done quite recently.

There are some who do not hesitate to denounce the "Los Angeles system", as it has come to be known in Pacific Coast dairy circles. But at any rate, the auction plan is very much in the ascendency, and "Colonel Ben" is its most successful and interesting exponent.

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WIRE FENCES

"Super-Zinced" Fences are protected against rust by the heaviest armor of zinc that can be successfully applied to wire. We use our own basic open hearth steel, and by our improved process the zinc is so thoroughly bonded to the wire that it will not crack or peel. This gives superior rust resistance, and we guarantee our fences to be unexcelled in quality and durability.

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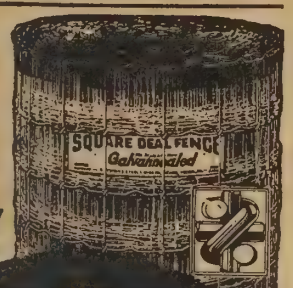
are made in the Government approved styles for farm, poultry and garden, and include our superlative attractive Lawn and Flower Fences. Both Columbia and Pittsburgh Perfect Fences are "Super-Zinced", giving greater rust protection at *no increase in price*. They add to the appearance, value and *profit* of your farm more than any other investment you can make.

FREE—Vest pocket size book with 72 pages of farm accounts, crop information, etc., also "Super-Zinced" Fence Catalogue, *free* upon request.

FREE! To Farm Owners—This Useful Vest Pocket Book

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Buy Fence *for the Last time*

If the ordinary fence will last 10 years, then "Galvannealed" Square Deal should last 30 years. By a newly patented process we weld 2 to 3 times more zinc into the *copper-bearing* steel fence wire. Therefore,

Galvannealed
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far outlasts any other farm fence. Get this extra long wear at *no extra price*. If the fence you buy is marked with a *Red Strand* you are sure to get long years of extra service.

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Write today for copies of official tests that prove our claims. Also get our catalog which tells all about: the stiff, picket-like stay wires that require fewer posts and stop sagging; the Square Deal Knot that cannot slip; firm tension, etc.; including Ropp's Calculator, handy reference book around farm. All 3 free to land owners.

KEYSTONE STEEL & WIRE CO.
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Owners find in the Oakland Six a wealth of power to pull when the grade is steep and the going hard—a purring engine when the traffic drags—a flying start when the congestion clears—and perfect control at all times with four-wheel brakes.

¶ *Standard equipment includes four-wheel brakes, disc steel wheels, balloon tires, Fisher Body, permanent top, Fisher one-piece V. V. windshield on closed types, Duco finish, centralized controls, unit instrument panel, automatic spark control.* ¶ *Glass enclosures for open cars at small added cost.*

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Oakland Motor Car Company, Pontiac, Michigan

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PRODUCT OF GENERAL MOTORS

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This quick dissolving, evenly penetrating salt always gives a perfect, even flavor. Its soft, porous, lace-like flakes dissolve instantly—will not form "salt crust." Don't risk $20 or $30 worth of meat by economizing on 10c or 20c worth of salt.





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Colonial *Special Farmer's* Salt

"There's a Colonial Salt for every purpose"

Send for FREE BOOK "New Truth About Salt"

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A Shoe Boil, Capped Hock or Bursitis

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will reduce them and leave no blemishes. Stops lameness promptly. Does not blister or remove the hair, and horse can be worked. $2.50 a bottle delivered. Book 6 R free.

ABSORBINE, JR., for mankind, the antiseptic liniment for Boils, Bruises, Sores, Swellings, Varicose Veins. Allays Pain and Inflammation. Price $1.25 a bottle at druggists or delivered. Will tell you more if you write.

W. F. YOUNG Inc., 454 Lyman St., Springfield, Mass.

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HIGHEST QUALITY REGISTERED

SILVER BLACK FOXES

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It will pay you to investigate this wonderful new industry. We solicit your consideration.

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Barren Cows Mean *Big Losses*

Proper treatment of cows at calving time will prevent barrenness. ABORNO Uterus Bolules have proved highly effective as a preventive. They stop foul odors and discharges, and heal the uterus. Box of 3, 75c post paid. Our Free Booklet "When Your Cows Calve" contains valuable veterinary advice.

Write today for Free Copy.

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Mark your Calves early

Use the C. H. Dana system to mark your calves as soon as dropped. Identity of ownership prevents confusion and loss. Easily applied, cheap and permanent. Send for free samples. Also herd books, bull rings, and complete line of breeders' supplies. Write for catalog.

C. H. DANA CO., 55 Main St., West Lebanon, N. H.



Good appetite
Good digestion

MORE MILK

GOOD HEALTH, good appetite and good digestion are the essentials of a good milker.

Every cow in your herd can be put in milking trim with a course of

Dr. Hess Stock Tonic

A Cow Tonic and Regulator

Your cow is a machine. To convert your grain, hay, silage and fodder into pails of milk is her function. The more she eats each day, if she is able to digest it, the more milk you get.

Dr. Hess Stock Tonic contains the dairyman's favorite remedy, Nux Vomica—the greatest of all nerve tonics—cow remedy, appetizer and digester. It contains Quassia, a stomach tonic; whets the appetite, promotes digestion. It contains Diuretics, to keep the kidneys active. It contains Laxatives, to keep the bowels regular, so that there is no clogging of the system during heavy feeding.

Just regular milk giving where Dr. Hess Stock Tonic is included in the ration.

Excellent for cows at calving time. No retained afterbirth. Feed it before freshing. Good alike for all cattle.



Buy it by the pail

Costs Little to Use

The price of one gallon of milk tonics a cow for two weeks. 25-lb. pail, $2.25; 100-lb. drum, $8.00
(Except in the far West, South and Canada)

Honest Goods—Honest Price. Why Pay More?

REMEMBER—*When you buy any Dr. Hess product, our responsibility does not end until you are satisfied that your investment is a profitable one. Otherwise, return the empty container to your dealer and get your money back.*

DR. HESS & CLARK, Inc., Ashland, Ohio

Dr. Hess Dip and Disinfectant

Keeps the Dairy and Stables Healthful and Clean Smelling

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Fistula of Teat

I have a cow that has two holes in one teat; one on the end and the other on the side. What should I do to this cow? It is very bad milking her.

I have another cow that gives 8 quarts of milk in the evening and about one-half quart in the morning. What do you think is the matter with her? SUBSCRIBER.

When the cow is dry the fistulous tract can be closed by thorough cauterization with a thermo-cautery or red hot knitting needle; or, better still, by an operation to be performed by a qualified veterinarian. Meanwhile swab the opening with tincture of iodine each other day and at milking time cover it with a wide rubber band.

The cow probably sucks herself or is sucked by another cow or calf. Make that impossible.

Taking a Blood Sample

We read with much interest your articles on contagious abortion. Most veterinarians do not know how to take the blood for a blood test. Please tell us just how to take the sample of blood, how to keep sample, how to mail it or fix for mailing, and where to mail it to for examination; also the probable cost of examining same after it is at experiment station. Could any bacteriologist make the examination? If so, of course, the price would vary?

Bristol, W. Va. O. C. H.

The sample of blood is obtained by thrusting a veterinary hypodermic syringe hollow needle into the jugular vein dilated by tying a rope fairly tight around the neck just in front of the cow's shoulder. The blood is caught in a test tube or small bottle that has been sterilized by boiling. The container is then plugged with sterilized cotton and labeled with the number of the animal and forwarded to the experiment station in the way advised by the officials. The agglutination test is applied by experts of the state agricultural experiment station or by a bacteriologist or pathologist who undertakes such work. Residents of Wisconsin are charged 10 cents per sample for making the blood test. The charge to outsiders is 25 cents per test. Particulars are given in Bulletin 368 of the Wisconsin Station at Madison and that bulletin also gives information relative to vaccination against abortion.

Johne's Disease

In one of your recent issues reference was made to a test for Johne's disease. Please give me the name of the medicine and where it can be purchased.

Evanston, Ill. E. J. B.

Full particulars about Johne's disease and testing with "johnin" are given in Bulletin 343 of the Wisconsin Agricultural Experiment Station at Madison. Johnin has been made and used with success at that station and has been supplied to veterinarians for use in suspected cases.

Garget

About six or seven months ago my cow came in one evening with one side of her udder considerably swollen. I bathed it in hot water and the next day it was reduced. About a month later the same thing happened again, and since then has increased in frequency. She has had at different times swelling in each of the four quarters. The swelling is not as severe as it was a few months ago, but it comes more often. I would like to know what you would call it. I called it garget for the lack of a better name. Now I wonder if there is anything I could do for this cow to prevent her from having this periodical swelling.

El Dorado Springs, Mo. C. E. L.

Such cases of periodic or recurrent garget are extremely common and often end in "spoiled bag". Germ infection is present in all severe attacks. The milder ones may be induced by chill, bruise, irregular or incomplete milking, indigestion, long continued heavy feeding of an excessively protein-rich ration, coming in heat, etc. Try to remove or prevent possible causes. Do not let the cow lie down on a concrete floor or cold, wet, or frozen ground. Cleanse the udder and teats before milking. Milk 3 times daily. Lessen the rich ration. Keep the bowels active. At times of attack milk once an hour and in the evening rub in a mixture of 1 part each of turpentine and fluid extract of poke root and 8 parts of unsalted lard or sweet oil. Also give the cow a dose of Epsom salts.

KOW-KARE INSURES **MORE MILK**



Here's one sign that thousands of dairymen believe in

EXPERIENCE is a great teacher. If you doubt your ability to materially add to your cows' milk production, why not prove it for yourself by an actual trial?

The winter months, with the long period of dry feeding, are a severe strain on the cow's digestion and assimilation. To get from the feed ALL the milk-value these organs must be even more vigorous than when green pasturage is available.

Kow-Kare is a medicinal invigorator that acts directly on the milk-making organs. Even if your cows are, apparently, healthy, a tablespoonful of Kow-Kare twice a day, one week out of each month will surprisingly increase the milk-flow.

For the actual treatment of such cow diseases as Barrenness, Abortion, Retained Afterbirth, Scours, Garget, Milk Fever, Lost Appetite, etc., the value of Kow-Kare is undisputed. Its success lies in its invigorating action on the digestive and genital organs—the seat of nearly all cow disorders



Prove the value of Kow-Kare this winter. Your feed dealer, general store or druggist has it—in $1.25 or 65c packages. Order direct if dealer is not supplied.

DAIRY ASSOCIATION CO., Inc.
Lyndonville, Vermont

TEAT TRIEVE SAVES TEATS From Going Blind



For SPIDER, INFECTIOUS SCABS, INJURED OR FROSTED TEATS. Apply Teat Trieve when cows' teats have orifices scabbed over or ball-like swellings near the end. Quickly relieves soreness. Restores teat to normal before udder becomes affected. Prevents contagion. Invaluable to all Dairymen. Kept on hand, saves time, trouble and losses. Price $1.00, postage prepaid, C. O. D. Satisfaction guaranteed.

HICKOK PRODUCTS CO., K-13, Owatonna, Minn.

"Tell Me About the Markings of Your Best Bull Calf? His Dam?"

Have you ever been asked a question similar to this? Did you answer it satisfactorily? One of our VEST POCKET HERD BOOKS will help you complete unexpected sales.

PRICE $2.00

Postpaid

HOARD'S DAIRYMAN
Fort Atkinson Wisconsin

"Human ingenuity can never devise anything more simple and more beautiful, or more to the purpose, than Nature does.—LEONARDO DA VINCI.



Bargains in Blue Ribbon WhiteCollies

Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home—joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.

SHOMONT KENNELS
Box 117 Monticello, Iowa

THE WORLD'S BEST

LEARN AUCTIONEERING

at World's Greatest School. Term opens Dec. 1st. Students have advantage of International Live Stock show for Stock Judging. Write today for large, free catalog.

JONES NAT'L. SCHOOL OF AUCTIONEERING, 38 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

SWINE

FOR SALE — BY MAIL

HAMPSHIRE BOARS, PIGS, GILTS

Write for FREE Price List.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

AYRSHIRES

WALLIS FARMS AYRSHIRES

Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance.
Federal Accredited Herd.

H. M. WALLIS, *Owner* Racine, Wis.

Production and Individuality

must be combined in the breeding of your next sire. Our success in the showrings of the U. S. and the production of our herd insures you getting individuals from us that will make money for you. We are now offering six young bulls eight to fourteen months of age sired by HOWIE'S KING OF HEARTS or CAVALIER'S LORD ROSEBERRY. 6 bred heifers and 10 young cows. Write for prices and information.

ADAM SEITZ & SONS WAUKESHA, WIS.

Ayrcroft Farm Ayrshires

have again proven themselves winners in the show ring as well as producers. Write for what you want. Herd Federal Accredited.

B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorita's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

BROWN SWISS

AUCTION SALE

Brown Swiss Cattle!

MONDAY

NOV. 17th

35 HEAD consisting of two bulls, three bull calves, 24 cows, 1 2-year-old heifer, 5 heifer calves. Herd Federal accredited. Write for catalogue.

DAHLEM & SCHMIDT
Box 85 Eldorado, Kansas

LEES' HILL

Accredited Brown Swiss Herd

"FORMERLY KINNELON HERD"

Offers a splendidly bred bull calf by a grand Champion National Dairy show winner and out of a first prize National Dairy show cow with a large A. R. record. Let us send you full particulars.

LEES' HILL FARM, Morristown, N. J.
W. S. DUNN, Sales Manager

GUERNSEYS

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.

A Federal Accredited Herd

—Registered—

Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address

O. G. CLARK & CO., WEST SALEM, WIS.

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.

RICHARD F. KLEMM, Baraboo, Wisconsin.



Edgerstoune's Luxury Bond Born Aug. 10, 1923

Edgerstoune's Luxury Bond

A Promising Young Bull For Sale

His sire, Sandhill Premium Bond Imp., was a first prize winner in Scotland as well as a National Dairy Show winner in this country. His dam, Nether Craig Luxury, 2nd at the 1923 National Dairy Show, has a record of 13,742 lbs. milk 594.36 lbs. fat. This youngster is a promising prospect as a show bull and as a herd sire. Write today for price and pedigree.

EDGERSTOUNE FARM, Geo. A. Hill, Mgr., Princeton, N. J.

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

Ladysmith's Cherub and Gerar Pearl

We are line breeding to these two great individuals by using our herd sire CHERUB'S DART (out of PEARL'S DOT) on the seven head purchased at Mr. Stout's Sale.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

2 SONS OF LADYSMITH CHERUB

The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

HELENDALE GUERNSEYS

FOR SALE: Several good typy registered females at very moderate prices, also some young bulls.

WM. A. ERBACH, Athens, Wisconsin

WOODEND FARM GUERNSEYS

BREEDING STOCK FOR SALE, May Rose blood. A few females with records over 600 lbs. fat. 6 bulls, 2 of serviceable age. All out of A. R. dams. Animals T. B. tested and guaranteed breeders. Prices right.

R A. LAMBERT, MGR., MOUND, MINN.



Falstaff's Wyoming of Upland Farms 68406

High Class Bull Calf

This calf is not priced cheap but he is well worth what we are asking for him. He is sired by Langwater Stargazer who is a son of Langwater Steadfast and out of Langwater Crystal. He is out of Falstaff's Wyoming of Upland Farms, a cow that has steady producing ability. Her records are: 9445.6 lbs. milk, 443.03 lbs. fat as two year old and 14748.8 lbs. milk, 679.26 lbs. fat Class A. .You want a bull at the head of your herd that comes from producing families. This calf is hard to equal. Write for price and description.

FLORHAM FARM, R. H. ALLEN, Manager, MADISON, NEW JERSEY

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.

J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

Thorn Hill Farm Guernseys



Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

AUGUST ZIESING, Deerfield, Illinois

A Cheap Bull

May ruin your herd, yet it may be unwise for you to invest too much in your next herd sire. We have two very fine young calves right now that will be one year old early next spring. They are individuals you will be proud to own and they come from real cows. If you are looking for a bull calf, priced right, buy one of these calves.

HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN

HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO

For prices and information, write

E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

Feeding the Dairy Calf

(Continued from page 511)

to ground grain was shown by the small consumption of hominy feed.

Digestion of Starch by the Young Calf

The digestive organs of the calf at birth are fitted to utilize milk. Other feeds cannot be digested to any extent. At this time only the true stomach functions. When several weeks of age small amounts of grain and hay are taken. The beginning of the functioning of rumination undoubtedly begins at this time although this subject has not been thoroughly studied.

A study made by Woodward and Norton of the U. S. Dairy Division to ascertain how early in life the calf can utilize starch or starch-containing feeds, throws light on the subject. Beginning at four days of age each calf received cornstarch mixed with the milk for a period of three days. This feeding was continued at five-day intervals. From 4 to 7 days the calves digested about 21 per cent of the starch consumed. When 12 to 15 days old the percentage of starch digested has more than doubled, at 21 days tripled, and at 28 days was above 90 per cent. They conclude that it is quite probable that a calf but a few hours old cannot digest an appreciable amount of starch. The quantity of starch splitting enzyms must, however, increase very rapidly in the first few days of life, for the calves, when four weeks old, were able to digest a ration nearly ten per cent of the dry matter of which was starch.

Better Bulls in Connecticut

(Continued from page 499)

9,000 lbs. Only bulls from dams having such records of production have been recommended by the Extension Service.

The actual buying of all bulls has been left to the individual farmers themselves, although the representatives of the Extension Service and the county agent have given advice, as requested, and have assisted in finding available bulls. The work has been so satisfactory that it will be continued for another year.

Windham, New Haven, and Tolland Counties have not been worked to any great extent and the campaign will still be carried on in these counties. In addition, Fairfield County will be surveyed and work started there early in November.

Just what this work will mean to the future dairying of Connecticut is hard to say, but it cannot take a great amount of imagination to predict a decided improvement in the dairy industry. Not only should the production per cow be increased but there should be a decided stimulus in all dairy work, since good stock always begets good care and management. There is nothing that is of more value to a dairyman than his pride in good live stock.

Connecticut has started well on the road to successful dairying by the step just inaugurated and it is not hard to believe that 500 pure-bred bulls will have been placed by the end of another year.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

World's Championship Blood FOR SALE



Raleigh's Torono Rex 223582

The three-quarters brother to Raleigh's Torono's Meme, World's Champion Jr. 2-yr.-old Jersey, sired by Raleigh's Torono, a Silver Medal bull with over 30 in the R. O. M. If you are not in the 50-lb. list, you need him. Write us for pedigree and full particulars. Herd Federal Accredited.

SHERMAN JERSEY FARM
CHARLES CITY, IOWA

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

"Just Jerseys"

Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.

The Oaklands, R. 5, Ann Arbor, Mich.

Michigan Jersey Cattle Club

Pure-bred or grade cattle for sale. Can quote prices on individuals or carloads. R. of M. and Cow Testing Association records.
H. E. Dennison, Field Man, East Lansing, Mich.

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

Registered Heifers-Good Bulls
Priced For Quick Sale

OAK GROVE JERSEY FARM has high class pure-bred young stock, priced for quick sale on account of being crowded for room. 3 yearling heifers, 3 heifer calves and 5 bulls around a year old. All sired by "Majesty's Ixia's Gamboge" whose dam has a record of 640 lbs. butter. U. S. Accredited herd.
W. M. KNIGHT, Eagle, Waukesha Co., Wis.

R. of M. JERSEYS

We are offering several fine male calves, sired by the Silver Medal bull, Sophie's Emblem, and Sophie's St. Mawes Victor. Some are ready for service. If you are looking for typy producers, write for particulars.
K. T. WIEGAND Cleveland, Wis.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Valley Farm

is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gamboge. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

HOLSTEINS

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

BULL CALF

Born April 5, 1924. Mostly White.
Sire—Chief Korndyke Johanna Ormsby, seven nearest dams average over 1000 lbs. butter, 365 days.
Dam—A daughter of a 1037-lb. butter cow.
PRICE $100. Pedigree and Photo
KEWAYDIN FARMS, R. 1
HERD "FEDERAL ACCREDITED"
J. A. Schmidt & Sons, Ladysmith, Wis.

ORMSBY-HOMESTEAD BULL

23-lb., 3-year-old dam, $100.00; S. P. O. M. 37th breeding. Younger one, $65.00. One 20-lb. bull, 10 mos., $75; Segis Dutchland breeding. Write EDW. RACE, Peshtigo, Wis.

Before You Buy A Bull!

Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms
(In Waukesha County)
F. J. Southcott, Manager, Dousman, Wis.
Clean herd under State and Federal Supervision

Fond du Lac Co. Holstein Association
OFFERS GOOD HOLSTEINS

both pure-breds and grades from clean herds. If you want cows, bulls or calves for calf club work we can supply your order up to several car loads. Our prices are very reasonable.
CARL BRUGGER, Sec., Fond du Lac, Wis.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio



A Yearly Record Son of Creator
A GOOD INDIVIDUAL—PRICED TO SELL.

He was born Nov. 18, '23, is well grown and absolutely straight. His sire, Creator, full brother to 37th, already has 47 A. R. O. daughters, including one 1,100-lb. two-year-old. His dam, Pabst Bell Hartog 2d, produced 17,132.7 lbs. milk, 764.9 lbs. butter at 28 months of age. She has a 25-lb. 7-day record and is a very straight topped daughter of King Pontiac Champion. PRICE $350. Guaranteed to be right in every way.
PABST HOLSTEIN FARMS Oconomowoc, Wis.

Monclova Stock Farms
DISPERSAL
Monclova, Ohio 13 mi. from Toledo 4 mi. from Maumee **November 21**
OVER 60 HEAD TO BE SOLD!
Eighteen Daughters and Sons of this Show Bull in Sale



KING KORNDYKE ABBEKIRK PRILLY 313724
First Prize 2-year-old Bull, Ohio State Fair, 1922

One of his daughters first prize calf, 1923 Ohio State Fair
Two of his daughters second prize heifers, 1923 Michigan State Fair
One of his daughters first prize calf, 1923 Michigan State Fair
One of his daughters first prize heifer, 1924 Michigan State Fair
One of his daughters first prize calf, 1924 Illinois State Fair
One of his daughters second prize calf, 1924 Ohio State Fair
One of his daughters second prize calf, 1924 Aurora, Ill.
One of his sons first prize calf, 1924 Virginia State Fair
His calf herd first at Illinois State Fair, 1924

Many, many other important winnings at all the above Fairs as well as other Fairs. Buy some of the Monclova Show animals to help you win next year.

Herd under State and Federal Supervision

Write for Catalogs — R. E. ANSTED; 9 No. Huron St., TOLEDO, OHIO

S. T. WOOD in the Box
Auctioneers—R. E. HAEGER, K. C. HOOVER, LOUIS RYAN

How to get there from Toledo: Take bus at Interurban Bus Station corner Superior and Jackson St., Toledo, at 8:50 A. M. and you will go direct to Farms at Monclova.

Ormsby-Homestead

HEIFERS and BULLS

FOR SALE

Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

A Clean Herd
Under Federal Supervision

MILFORD MEADOWS STOCK FARM
J. C. CORT, Mgr., LAKE MILLS, WIS.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 **REGISTERED HEIFER CALVES,** sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street **Waukesha, Wis.**

— PUREBRED —

HOLSTEIN HEIFERS

25 HEAD pure-bred heifers, 2 and 3 years old, bred to a 29-lb. bull. Due in November. Priced right for immediate sale.

RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y., **Randolph, Wis.**

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

35 Lb. Show Bull

Homestead breeding. Born Nov. 19, 1923. Son of our Wisconsin State Champion, Nellie Empress Homestead, with 35.03 lbs. of butter from 565.3 lbs. of milk, at four years. A splendid individual. A prize winner at the State Fair. Accredited herd. Write for pedigree, photo, and price.

LEWIS BROS., **Lake Beulah, Wis.**

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, **Watertown, Wis.**

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. **DUNDEE, ILL.**

For Sale or Exchange

LORD FAYNE VALDESSA NO. 187263, proven sire. Dam's record seven days 30.61 lbs. Milk 630 lbs. Thirty-day record 125.49 lbs., milk 2,589 lbs. Write

SLIVKA BROS., **Plainview, Illinois.**

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, **Arlington Heights, Ill.**

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

RIVER MEADOW FARMS, Portlandville, N.Y.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

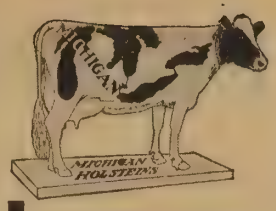
ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

High Testing Show Bulls

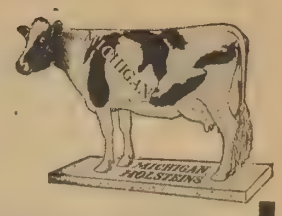
ALL AGES

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD **Norwalk, Iowa**



Buy Michigan Holsteins



Free Service:—The County Sales Manager will quote you on what you want. He will show you the Holsteins of his county free of charge—whether you buy or not. The state association office will refer your wants to each of these reliable County Sales Managers—there are fourteen of them. Write.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, **East Lansing, Michigan**
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

For Sale!

YOUR CHOICE OF 40 HEAD REGISTERED HOLSTEINS, fresh cows and springers, calves and heifers. Cows bred to calves from 42-lb. 7-day sire, 1,290-lb. year. Am short of barn room, must sell.

OSCAR R. RUMSEY, **HUDSON, MICH.**

Why Take Chances

When We Sell Only Proven Producers!

WE OFFER: Copland S S Echo born Feb. 24, 1922. Btr 7d 1 yr. 7 mo. 20.99 milk 410.1. Btr 1st 7 mo. (herd record) 418.31 milk 10,325.8. Net profit $94.95.

Due Feb. 22, 1925 by Sir Dutchland Colantha Denver, dams record 36.25, 1315.15.

PRICE $250.00 F. O. B. Send for picture and pedigree. **Herd under Federal supervision.**

SERRADELLA FARM, **Oscoda, Mich.**

A 30-lb. Bull

At a Bargain Price

King Pontiac Segis Lad De Kol 3d is 2 years old and the sire of some very promising calves. He was second among 25 calves at the 1922 Michigan State Fair and this year he was a prize winner as a 2-yr.-old. His dam made 30 lbs. butter from 700 lbs. milk in 7 days and his sire is a son of Sadie Gerben Hengerveld De Kol, 40 lbs. butter, 782 lbs. milk in 7 days, 157 lbs. butter, 3465 lbs. milk in 30 days. Sold subject to 60-day retest guarantee. Write today

BAYNEWOOD FARMS, Romeo, Michigan

3 High Record Bulls FOR SALE!

One out of a 29-lb., 1,108-lb. four-year-old daughter of King Hengerveld Model Fayne, a 30-lb. grandson of King Segis. One out of a 31-lb., 1,185-lb. daughter of Fairview Pontiac Beets Korndyke. Both of these are sired by a 38-lb. son of Judge Segis.

I am also offering a son of Sir Ormsby Pontiac Segis out of a 36-lb. daughter of King Segis Pontiac Superior.

Write today if you are interested in a good bull. I will be pleased to send pedigrees on request.

LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 **DETROIT, MICH.**

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC **MICHIGAN**

Bell Farm King Sylvia 297729

Now in service in the Pontiac State Hospital Herd. He combines the blood of two of the great cows of the breed, MAY ECHO SYLVIA and SUSIE ABBEKERK COLANTHA, better known as "WHITE SUSIE".

HIS DAM, "WHITE SUSIE"

Butter	7 days 35.12	Milk	737.1
Butter	365 days 1113.39	Milk	28,361.1

HIS SIRE'S DAM, MAY ECHO SYLVIA

Butter	7 days 41.01	Milk	1,005.8
Butter	30 days 169.72	Milk	3,767.3

Nearly all the females in the famous Pontiac Herd trace directly to Pontiac Korndyke or Hengerveld De Kol.

DO YOU WANT A PONTIAC IN YOUR HERD?

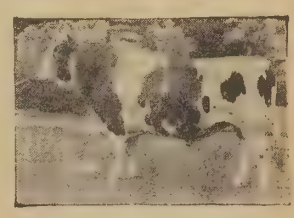
SEND FOR OUR LIST OF BULLS FROM MICHIGAN STATE HERDS

BUREAU OF ANIMAL INDUSTRY, Dept. B, **LANSING, MICH.**

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, **- MT. CLEMENS, MICH.**

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM **- BATTLE CREEK, MICHIGAN**

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

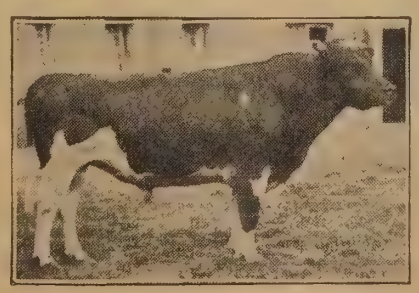
Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.



MEADOW HOLM ONA HARTOG KING

Sire of 2 A. R. O. daughters. He has some promising young daughters in our herd, several of them winners at the "Cattle Congress" this year.

Iowana Farms' Senior Herd Sire

MAPLECREST PONTIAC HARTOG 62178.
38 A. R. O. daughters.
One 940-lb. Jr. 2-year-old; one 900-lb. Jr. 3-year-old; two 800-lb. Sr. 3-year-olds.

ONA CLOTHILDE DE KOL 70349.
Milk 672.80 lbs. in 7 days.
Butter, 26.45 lbs. in 7 days.
Milk, 25019.30 lbs. in 365 days.
Butter, 1100.61 lbs. in 365 days.
Four A. R. O. daughters.

PONTIAC AAGGIE KORNDYKE 38291, 68 A. R. O. daughters. 5 with over 1100 lbs. in a year.
- **PONTIAC KORNDYKE** 25982, 153 A. R. O. daut.
- **PONTIAC AAGGIE** 53439, Milk 423 butter 20.65 7 da.

BURTON HIGHLAWN 2d's HARTOG 70231.
Milk, 577.5 lbs. in 7 days.
Butter, 30.14 lbs. in 7 days.
Five A. R. O. daughters.
- **CLARION VELTHIUS 31072,** 5 A. R. O. daughters.
- **BURTON HIGHLAWN 2D.** 63235, 12 yr. 10 mos. 5 da. milk 446.10 but. 20.58 7 d.

CHESTERLAND MUTUAL PAUL DE KOL 28679, 7 A. R. O. daughters.
- **DE KOL 2d's MUTUAL Paul** 25700, 50 A. R. O. daut's.
- **KOOKEE** 18290, 1 A. R. O. daughter.

ONA CLOTHILDE 57534, Two A. R. O. daughters.
- **JESSE JAMES DE DIKKERT** 26151 1 A. R. O. d.
- **ONA BERYL** 50040.

He is being bred to daughters and granddaughters of Sir Johanna Fayne and of Oak De Kol Ollie Homestead. We have a few of his good sons for sale.

IOWANA FARMS **Davenport, Iowa**

Arden-Mineral Springs Fall Sale

NOVEMBER 21-22

State Fair Grounds

St. Paul, Minn.

Federal Tested Cattle Selling With Retest Privilege

75 Pure Bred Holsteins

To be Sold November 22d

Consigned from the Noted Herds of J. M. Hackney, Mineral Springs Stock Farm (O. H. Gray and Axel Hanson) and W. S. Moscrip.

Included are daughters of Mr. Hackney's great sires, *King Segis Pontiac Count* and *Piebe Laura Ollie Homestead King;* The Mineral Spring's sires, *Duke Pietertje Korndyke Ormsby* and *R. C. King Korndyke Colantha Ormsby,* and Mr. Moscrip's *Bessie Fobes Oak Homestead* and *North Star Champion.*

100 High Grades

To be Sold Nov. 21st

These are all Consigned by the Northwest Grade Cow Market, J. M. Hackney, President, St. Paul. Without question THE GREATEST LOT OF GRADE HOLSTEINS EVER OFFERED IN THE NORTHWEST.

A wonderful consignment of Grades of splendid type and great producing ability. Practically everyone is a close-up springer. Only young cows and bred heifers included. *Everyone ready to begin making money.*

Buy now and build for the future! There has never been a better time to buy Holsteins

Send for Descriptive Folder

TWIN CITY PEDIGREE & SERVICE CO., Sales Mgrs., 211 Market Bank Bldg., Minneapolis, Minn.

Ollie-Ormsby

BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.

WALCOWIS FARMS **Lake Geneva, Wis.**

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON, Oconomowoc, Wisconsin

Herd under federal supervision.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

BUY YOUR HOLSTEINS

where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. **JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.**

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager **Rochester, Minnesota**

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes,** a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby,** a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. **Warren, Minn.**

GRANDSONS of SIR P. O. M. 37th

from dams with long time records up to 1024 lbs. butter in year. Federal Accredited Herd. Prices from $75 to $200.

B. A. NORRIS **Anoka, Minn.**

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., **Reedsburg, Wis.**

A 31-lb. Show Bull — *Ready for Service*

Born Oct. 17, 1923. Well grown.

HIS SIRE: 1st prize N. W. Dairy Exposition, 1923, with dam's record of 688 lbs. in 305 days as Jr. 2.

HIS DAM: A formerly state record heifer with 31 lbs. in 7 days as a 3-yr.-old.

BREEDING: The Ormsby Colantha Combination.

Ask for picture, price and particulars.



Onal Sir Johanna Ormsby

ONAL HOLSTEIN STOCK FARM, Alexandria, Minn.

A Yearly Record, Serviceable, Ormsby Bull

Born July 30, 1923. A good individual, mostly white in color. A grandson of Sir Pietertje Ormsby Mercedes. His two nearest dams average 995 lbs. butter, 23,000 lbs. milk in 365 days. The price is $175 F. O. B. Northfield.

CARLETON COLLEGE FARMS, Northfield, Minnesota

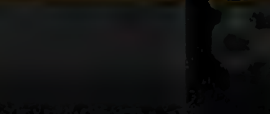
FEDERAL ACCREDITED HERD

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. ***Born Dec. 20, 1923***

Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".

Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.

Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.



Sir Walker Segis Homestead

A. J. LASHBROOK - - - Northfield, Minnesota

Forced to Sell At Once Our Entire Herd of 90 Registered Holsteins

The majority are of milking age with A. R. O. records up to 30 lbs. A number of large cows and heifers to freshen soon. Mostly sired by such sires as Johanna King Segis, Pabst Creator Ormsby and King Bess Burke Ormsby. Come at once and select one or as many as you wish.

TWIN PINE STOCK FARM, OXFORD, WISCONSIN.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

JOHN H. PULS - - ALLENTON, WIS.

Four-times-a-day MILK RECORD SHEETS

We are now in position to furnish our readers with ten cow, 31-day milk record sheets, spaced for keeping track of four-times-a-day milking.

Size 12 x 24 inches printed on light but durable card board. Price 5 cts. each, postage paid.

A year's supply (12 records) sent free to any reader who will send just two yearly subscriptions to Hoard's Dairyman, at $1.00 each.

Hoard's Dairyman, Fort Atkinson, Wisconsin

Postdale Farms Dispersal

— PUREBRED — 57 HOLSTEINS 57

Tuberculin tested and guaranteed — Just passed 100% clean test. Never had a reactor

AT THE FARM

Friday, Nov. 14, Durand, Mich.

2 miles north and 3 miles east of Durand. 1 mile north and 1 mile west of Duffield. Will meet all trains at Durand up to noon on day of sale.

Some of the Features

The World's Champion junior four-year-old for milk production, with over two dozen of her sisters, one of them a State Champion and others with fine records.

The Highest Record Bull in the World, with a World's Record average for his two nearest dams. Also over a dozen good cows and heifers bred to him.

If You Want More Milk, You Need Some of These Great Milk Producers

Several of them have milked over 100 lbs. in a single day

For Catalogs, write

JOHN E. POST, Owner, R. F. D. No. 2, Durand, Mich.

Wisconsin's Greatest Holstein Sale Circuit

320 - Pure Bred Holsteins - 320

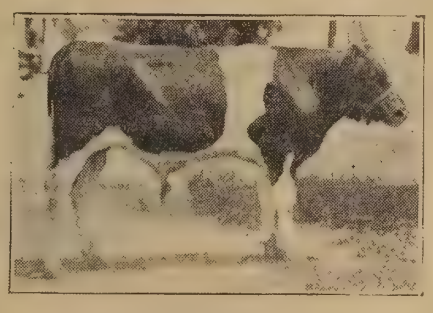
From State or Federal tested herds and sold subject to a 60-day retest. Selected from the oldest and best established pure bred breeding sections in Wisconsin

Monday, Nov. 17	Tuesday, Nov. 18	Wed., Nov. 19	Thursday, Nov. 20
60 Serviceable or Near Serviceable Bulls	85 Selected Pure Bred Females	85 Selected Pure Breds 85	85 Selected Pure Breds 85
	Waukesha Co. Holstein Breeders' Ass'n	Watertown Holstein Breeders' Ass'n Francis Darcey, Secretary, Watertown, Wis.	Lake Mills Holstein Breeders' Ass'n Frank Everson, Mgr., Lake Mills, Wis.
Waukesha, Wis.	Waukesha, Wis.	Watertown, Wis.	Lake Mills, Wis.

Monday, Nov. 17 60 Serviceable or Near Serviceable Pure Bred Bulls Waukesha, Wis.

The season's greatest offerings in pure-bred bulls are in this sale. Practically all the good serviceable bulls within a radius of 30 miles. If looking for a bull for your pure-bred or grade herd attend this sale.

THREE OF THE MANY UNUSUAL OFFERINGS. Write for information.



Born July 16, 1923. Sire—King Canary Oak De Kol. Dam—Pabst Arrowhead 2d, over 4% fat test for year. Butter, 365d 3y 1003.50; milk, 19,525.00; butter, 7d 32.00.



MAPLE ROW OLLIE HOMESTEAD
Born March 18, 1924. Sire—Sir Ollie Mooie Watson. Dam—Pet Mutual Piebe Homestead. Butter, 7 days, 31.19; milk, 463.00. Her dam a 1000-lb. cow. One of the greatest individual bulls ever offered.



PROSPECT McKINLEY
Born Dec. 21, 1923. Sire—Carnation Segis Prospect. Dam—Carnation Matador Tentie. Butter, 7d, 29.33; milk, 512.00.

Tuesday, Nov. 18 85 Selected Pure Bred Females

mostly bred cows and heifers due to freshen this fall. Among these are: A yearling daughter of North Star Parthenes Sir Beets, out of Nellie Empress Homestead with 35.03 lbs. butter in 7 days as a 4-yr.-old. (Wis. State Record). She is bred to Maple Row Sarcastic Lad. Complete dispersion of the Paul Reed herd of 35 head. Every animal of milking age has an official record. His is one of the best small herds in Wisconsin—not a blemished animal in the lot—18 of the cows in this herd due to freshen this fall.

Write for information on both days of sale to

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION, WAUKESHA, WISCONSIN

Watertown, Wis., Fall Sale

Wednesday, Nov. 19th

85 Head of Registered Holsteins 85

Including 20 Top Yearling Bulls, with Records up to 33 lbs., 70 Bred Heifers and Choice Springing Cows

We exercised care in our selections. We have satisfied our patrons in the past and do not propose to shatter the good will already established. Our bull offerings are exceptional this fall. Don't fail to see them. We have what you want. E. N. Murphy, Carnation, J. McKune, and other prominent breeders are offering bulls.

If you want good, clean, honest cattle come to Watertown on Nov. 19th. If you need a herd sire, be sure to come. All cattle sold on retest.

J. E. MACK, AUCTIONEER

For catalog write to

FRANCIS DARCEY WATERTOWN, WIS.

Sale follows Waukesha—only 30 miles on concrete road.

Lake Mills Holstein Breeders'

ANNUAL FALL SALE

Lake Mills, Wis., Nov. 20

85 HEAD — COWS! COWS! COWS!

Just what you are looking for! Good, young, business cows! Cows and heifers ready to turn profits your way at once. Due to freshen shortly after sale. *The Best of Breeding. Selected for Individuality.*

A 26-lb. 4-yr.-old daughter of Windsor Sweet Buttermaid. Some cow, too.

Also her yearling son, sired by a son of Iowana Sir Ollie.

Two nice, big, 20-lb. cows, in calf to Avon Pontiac Ormsby, a 21-lb. grandson of May Echo Sylvia.

A daughter of a 28-lb. cow, of a 26-lb. cow, of a 600-lb. senior yearling, of a 19-lb. 2-year-old, of a 21-lb. cow, of a 17-lb. 2-year-old.

Some nice daughters of Ashglen King Abbekerk Wayne Segis, a proven sire, whose first daughters coming in milk are making very fine records.

A good 2-year-old show bull. His sire is a son of Iowana Sir Ollie. His dam has a record of 814 lbs. fat in 305 days, held the State Record and is also the dam of a World's Record 2-year-old.

Some very fine daughters of Sir Ormsby Skylark Banostine, a grandson of Maplecrest Butter Boy De Kol and Dutchland Skylark Ormsby.

Six nice, young cows in splendid condition, due soon after sale. All daughters of the 1146-lb. bull, King Ormsby Korndyke De Kol.

A wonderfully promising yearling son of King Bess 6th, a royally bred bull whose two nearest dams average over 1000 lbs. The dam of this fellow is a 20-lb. 2-year-old and was one of the top females at the Dairy Show Sale.

A beautiful yearling bull from a 32-lb. son of Creator and from a 24-lb. 4-year-old dam; next dam 31.58 lbs.

A classy 3-year-old daughter of Avon Pontiac Echo and due soon after sale to Sir Ollie Ormsby Watson, whose dam is a 29-lb. granddaughter of Iowana Sir Ollie and Pietertje Maid Ormsby.

An outstanding son of the great show bull, Burton Hartog De Kol Ormsby, and from a record daughter of King Segis Pontiac.

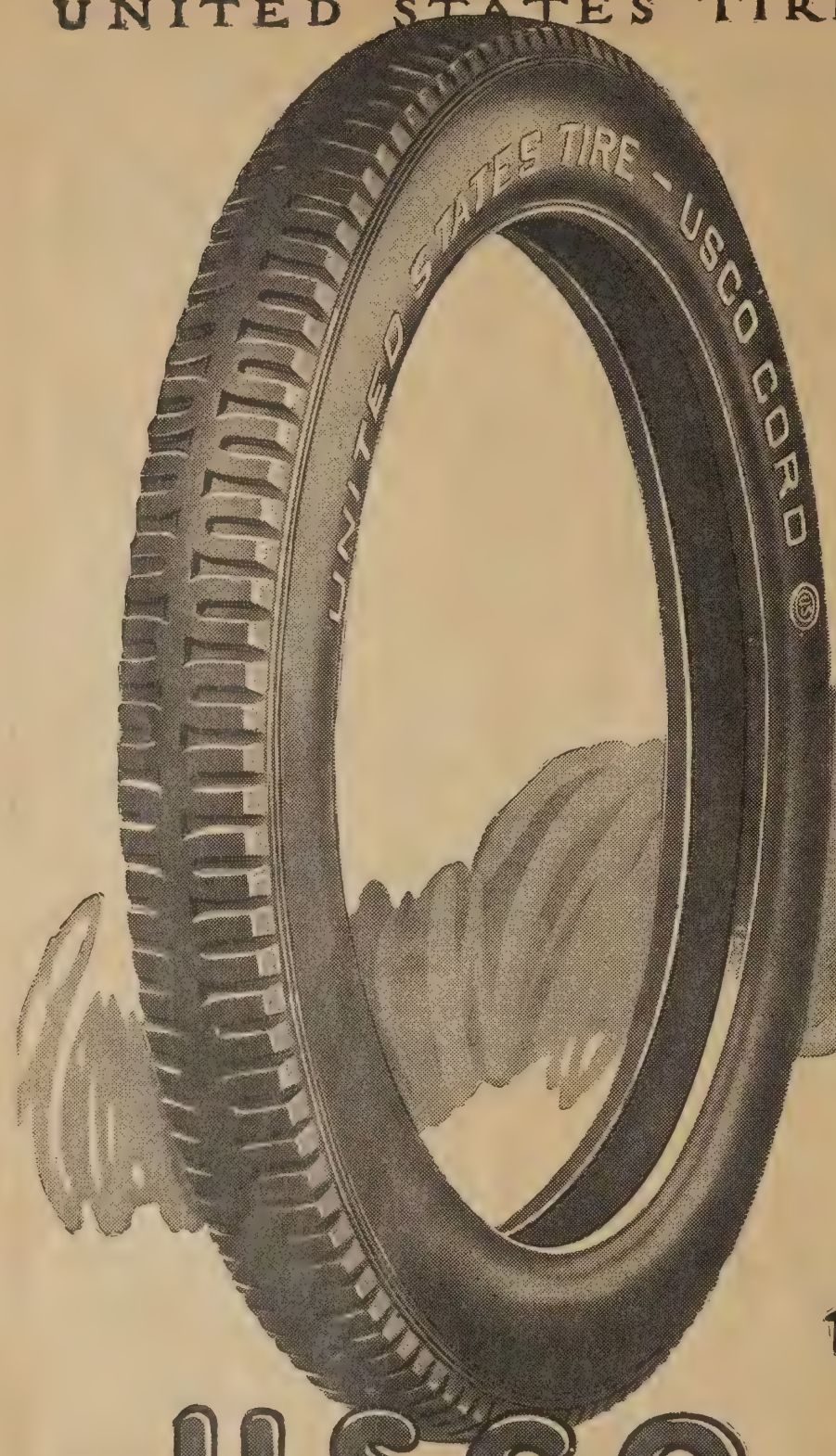
All T. B. tested and most of them from Federally Accredited Herds. Sold under a 60-day guarantee.

AUCTIONEER—J. E. MACK

For Catalog Write

F. H. EVERSON, Manager . Lake Mills, Wisconsin

UNITED STATES TIRES ARE GOOD TIRES



There is a U.S. Tire to Meet Every Car Requirement

U. S. Royal Cords
In all standard sizes from 30 x 3½ inch up.

U. S. Royal Cord Balloon Tires
For 20, 21 and 22 inch rims.

U. S. Royal Cord Balloon-Type Tires
Built to supply Balloon cushioning to car owners who do not want to make wheel and rim changes.

Usco Cords
The popular standard low-priced cord (see below).

Usco Fabrics
In 30 x 3, 30 x 3½ and 31 x 4 inch clincher.

U. S. Royal and Grey Tubes

US RUBBER SYSTEM — UNITED STATES RUBBER COMPANY AND ASSOCIATED COMPANIES
Trade Mark

Now Comes the Handsomer USCO CORD

IT is an *all black* tire.

It has a broad, flat tread with good high shoulders.

It gives more road contact and greater traction and non-skid protection.

The makers of Royal Cord Tires consider the Usco Cord next to the Royal Cord, the greatest tire value ever produced.

It carries their name and trade mark.

If you drive a light six or four, and your requirements do not call for a tire of Royal Cord quality, but you want every last cent's worth of service and appearance that your money ought to buy—

Here is the tire for you.

The Usco Cord comes in 30 x 3 inch and 30 x 3½ inch clincher; and 30 x 3½, 32 x 3½, 31 x 4, 32 x 4, 33 x 4 and 34 x 4 inch straight side.

United States Rubber Company

4 C Ed. 20 July 25
Expt. Sta.
Urbana Ill.

HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII, No. 18 Fort Atkinson, Wisconsin November 14, 1924

MR. FARMER, SPARE THAT TREE

LEWIS C. FRENCH, WISCONSIN

ONE day a country of rare beauty, a section studded with jeweled lakes, hills, and valleys covered with verdure, colored as brokenly and as vividly as the field of a kaleidoscope, and the next day—vast tracts of utter desolation, a barren, unproductive waste. That is the story of the red scourge of the timber country—forest fires.

For weeks the country along the International waterways in Minnesota had been free from smoke. A trip along the historic boundary waters from Lac Le Croix, King William Narrows, Nameukan, and thence to Kabatogama—"Where the Waters Meet"—revealed a country of considerable virgin timber, the great Lake Superior national and state forests, the stretches of pine of private ownership, and here and there state controlled tracts that had been saved from the mills. It is one of a few bits of America left that carry the romantic suggestions of pioneer days.

There were mighty strands of the northern timber masterpieces, pines matchless for their beauty. It was early fall, the start of the hunting season in 1922, with the deciduous trees carrying the brilliant hues, nature's painting running the gamut. It was a country of the "red gods" where blood tingled and the chest expanded from the very fact of being alive to glory in the forests.

For three weeks there had not been a drop of rain, with prevailing south winds that dried up the swamps and woods. The leaves—red, gold, and brown—rustled and crackled under the feet with a foot or more of rich forest humus, bone dry.

Then the change. Some one was careless or negligent. Grey smoke appeared, billowing black clouds, hot and choking with flame that swept swiftly along the dry forest carpet, transforming the forest into a roaring furnace, the majestic pines into giant torches. There was a wall of flame fanned by a brisk wind that sped on across the country faster than a horse can travel, with red flames jetting out licking up every leaf, twig, brush, and tree—every living thing. The black smoke piled high into the sky in mountainous formations. Embers started other fires until the flames were spread over an area thirty miles long. It spelled disaster to the homesteaders and their pitiful small clearings; to any village or town that was in its path.

State forest rangers, husky chaps, thoroughly trained to their job, appeared as the helpless homesteaders gathered at the breaking points, hoping for a miracle to stem the tide of flames. The ranger took one look, noting the stiff wind and remarked: "All hell cannot stop that fire!" Only Heaven could with a torrent of rain or heavy snow.

But nature sent neither and the gale of wind swept the fire across country, destroying millions in timber and farm improvements. There was no stopping the financial losses. Every effort was made to protect lives.

Heroic measures were taken to stem the flames, but luck was not with the forest rangers and their aides—the homesteaders and militia. The meager handful of rangers pitted their nerve and tireless energy in the back-breaking, soul-trying, exhausting work of taming the wild fire. Fighting fires means weary miles of hiking, hours of work with the ax, hoe, or shovel, with lungs aching for air and eyes blinded by acrid smoke. They are great men, these rangers, with an inborn love for the forests that makes them hate fire and rigid in their enforcement of the too few laws to protect the timber. Nothing arouses their anger so much as thoughtless destruction of trees, regardless of ownership. They have an efficient method of detection and suppression, but any army of men could not have stopped the fires that swept over sections of northern Minnesota and southern Canada last fall.

There is a vastly different sight when the fire has passed. A burnt over area is nothing but ashes, down timber, blackened rocks, and fire debris. There is nothing left but a blackened swath of stark dead desolation that cannot grow into a green and living forest naturally within a life span of this generation. For years the twisted arms of fire-killed trees lay there, or bare "ram-pikes" stand upright, killed by the fire scars.

It is a sad monument to American neglect, a black protest against present forestry policies. No sight is more pitiful or distressing than a burned-over forest country. It is utter waste.

After seeing the destruction of fires, the importance of good forestry as it applies to the American farmer and American agriculture becomes evident. There is a lesson for every farmer and those dependent on farming in those Minnesota forest fires and others that each year destroy prospective timber and leave thousands of acres of profitless land. The average American farmer may think he is not concerned with the national forestry problem until he purchases lumber for a new home, a barn, hog or hen house. Excessive lumber prices are a drawback to modern and efficient farming. We are a nation of wood users. Without wood, the American farmer would be up against a hopeless problem.

The bare-faced fact about the timber situation, brought out in the recent report by the Forest Service, U. S. Department of Agriculture, is exactly this, "Three-fifths of the original timber of the United States is gone and we are using timber four times as fast as we are growing it". Here is something more for the farmer to think over. "The largest owner of timberlands, the largest user of timber, is the farmer. Wood means more to him than anyone else."

Here's another angle for the farmer to ponder about when he considers building a new dairy barn. There is no longer any regional competition in supplying the lumber markets. The steady process of "regional exhaustion" has gone on until the farmer in the distant East or far South must pay high freight on timber from the regions where there is but a limited supply. The remaining timber is so localized that its availability to the average farmer is greatly reduced. He must pay the price of both a depleted supply, with a growing demand, and a distant point of production. There has been a marked suspension in new construction on American farms and even in farm improvements that require lumber. It is estimated by the government that the average utilization per farm unit of lumber is about 2,000 board feet a year. There is no question but that the live stock and dairying sections

(Continued on page 544)



GUERNSEYS OF ALFRED MORAWETZ, WISCONSIN, ON PASTURE

Iowa Exhibit Compares Cows

BURTON ODERKIRK, IOWA

"USE the Axe and Avoid Financial Suicide" was stated on a placard attached to an axe suspended over a forlorn looking bovine labeled "Not a Bull—A Cow Freshener."

This was to introduce the cow testing association exhibit shown at the Dairy Cattle Congress at Waterloo by the Iowa State College Extension Service. An effigy of a financially distressed dairyman hung from the ceiling indicated that financial suicide is the ultimate fate of men who keep scrub cattle. The exhibit was impressive because the six cows, a pure-bred bull, and a plain "cow freshener" were not selected to show extremes but because they could be found on so many farms.

The purpose of the exhibit was to show the value of cow testing associations as an aid in culling unprofitable cows, to teach that, as a rule, increased production means increased net income, and to show the value of a pure-bred sire in building up a herd of high producing cows.

Next to the "cow freshener" was a plain red cow designated, "A Scrub—no record of production or reproduction."

The other cows in the exhibit were grade Holsteins, the first being "Whiteface" whose color hints of a possibility of some beef breeding. She was culled when the Babcock tester and the milk scales found her unprofitable. She was purchased at an auction sale because she was fat, sleek, and carried a large udder. She calved, milked six months, and went dry regardless of good care and a well balanced ration. She produced 102 pounds of fat which sold for $54.06. Her feed cost was $59.71. Her owner lost $5.65 plus one year of labor on her and interest on $78.00.

Another cow listed in the same sale with "Whiteface" did not receive a bid in the sale ring. She was sold privately to an association member who realized that she was out of condition after a hard year of work. After two months' rest with good feed and care she calved and produced enough to pay for herself the first month besides being high cow in the testing association for the month. She was "built for business" and the tester proved her worth.

"Callie", the next cow, had appearances of being a profitable producer but she also loafed half the year. She calved March 27th and was dry September 20th. "Callie" produced 135 pounds fat, approximately the Iowa state average. It sold for $71.55 and her feed cost was $63.43. Her owner kept her one year for $8.12 or 2⅓ cents per day for his trouble. Can anyone afford to do this?

"Fern", owned by B. Ferneaux of the Pioneer Association, each year milks about ten months, rests two, and drops a valuable calf. A herd averaging the production of Fern is always profitable. She produced 318 pounds fat which sold for $90.16. Her owner made $78.38 above the cost of her feed.

"Esther", the next cow, not only has size and good type but is in the aristocratic class as a producer. She also has systematized her efforts by milking ten months and resting two. Her calves are coupons worth keeping. She produced 410 pounds fat which sold for $217.30. Her feed cost was $98.83, and her profit was $118.47.

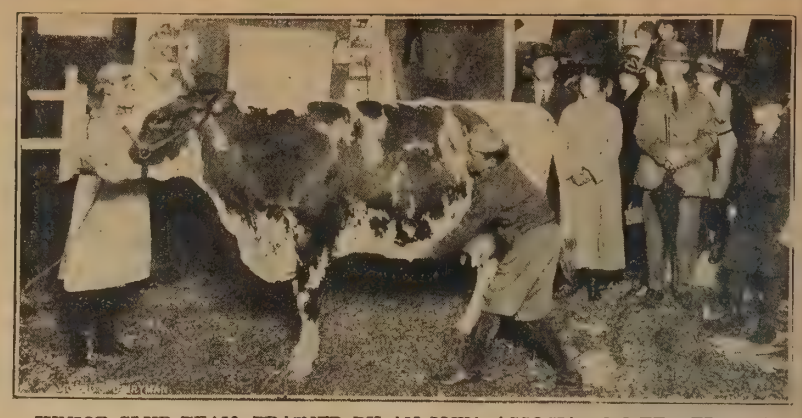
"Jenny", a sister of "Esther", owned by Hanson and Merner of the Pioneer Association, was the highest producing cow in the association last year with 508 pounds fat, which sold for $269.24. Her feed cost was $99.15. Her owner made $170.09 above feed cost.

A pure-bred bull was shown as a contrast to the "cow freshener".

A panel exhibit gave the fact that there are now 61 test associations in operation in Iowa. Another showed a map of Iowa with the exact location of each association, most of them being in the northeast quarter of the state.

A concrete example showed one good cow to be better than a whole herd. A cow in one herd produced 400 pounds fat and netted $134.69 above feed cost for the year. In a neighbor's herd ten cows only produced an average of 118 lbs. fat and netted an average of $10.30 per cow for the year or a total of $103 for the ten cows. When one cow can net one and one-third times as much as an entire herd of ten cows it pays to test rather than guess.

Daily demonstrations on cow testing association work were given by the Black Hawk County demonstration team coached by R. C. Munkwitz, tester of the Pioneer Testing Association. This team won over all teams competing at Waterloo and placed third in competition with winning teams from other states at the National.



JUNIOR CLUB TEAM, TRAINED BY AN IOWA ASSOCIATION TESTER, GIVING A COW DEMONSTRATION AT THE DAIRY CATTLE CONGRESS

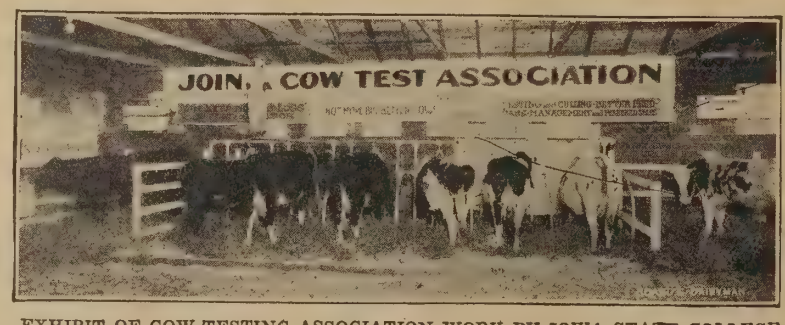


EXHIBIT OF COW TESTING ASSOCIATION WORK BY IOWA STATE COLLEGE EXTENSION SERVICE AT THE DAIRY CATTLE CONGRESS, WATERLOO, IA.

Co-operation and Co-operative Creameries in Denmark

PETER ASMUSSEN, MINNESOTA

DENMARK'S dairy industry is well organized through local, district, provincial, and national organizations. Their dairy associations, of which there are about 1335, are organized on strictly co-operative basis. Each of these operates a creamery which has a membership of from 100 to 200, and number of cows from 800 to 1,600. They are signed up under a binding contract from ten to twenty years to deliver all of their milk except that used in their homes. All members are jointly and severally liable, and must abide by the rules laid down by their board of directors and operator. They must deliver their milk clean and sweet each morning.

The first of these associations was organized in 1882, and since that time has built up their dairy industry to its foremost place in the world. Realizing that a change of experiences would be a great help in promoting their industry, they organized district associations, of which there are 23, with a membership of all of their local creameries. Their purpose is to organize butter scoring contests and meetings to discuss matters in furthering their dairy industry. Their district units are organized into provincial associations with their yearly exhibitions and meetings. Their three provincial associations form their national dairy association which represents their industry in legislation and other important matters. It also operates a statistical department and collects from each creamery information as to number of cows, amount of milk received, butter produced, expenses, etc.

For a number of years, the creameries marketed their butter through the commission merchants, but they finally awoke to the realization of establishing their own marketing organizations and organized eleven co-operative butter export associations, which again are amalgamated in a national association. In 1906 a law was passed making the "Lur" brand compulsory for all Danish butter for export. The government was given power to control the trade-mark and quality. A creamery wishing to export butter has to secure a license from the Department of Agriculture. When issued, the Department will furnish the creamery with the necessary "Lur" brand staves and printed tub circles. Each creamery is given a number. The "Lur" brand mark and number is burned into the staves of both sides of the cask, and on the printed labels. The government with the aid of the experiment stations in Copenhagen controls the quality and scoring of butter.

Managers Must Be Good Men

The Danish creamery managers and buttermakers have taken a prominent part in the development of the Danish dairy industry. Their butter exhibits, contests, and meetings are generally held jointly with their creamery associations. To secure a creamery operator's position in Denmark, the creamery operator must have at least five years of practical experience and a dairy school course, and if he is selected for the position, he must sign a contract with his creamery to make a certain score of butter the year round. If he gets more score than his contract calls for, he receives one-half of the receipts of the over-score, and if his butter does not score up to his contract, it will be deducted from his salary. Some creameries apply a similar contract, when hiring, on their fuel consumption and running expense. They give him a certain allowance and it is up to him to make or lose.

Have 861 Cow Testing Associations

Better than one-half of the cows are under cow testing association records and T. B. tested. They have 861 cow testing associations. The cow tester also supervises the farmers' barns and cows and milking utensils as to sanitation, and also gives instructions in milking and feeding of the cows. He also keeps records and supervises their sire associations and exchange of sires.

The Danish farmer has on the average one cow for every two acres of soil, and the farms average in size from 30 to 50 acres. They do not raise enough feed themselves, but import a lot of oil cake, bran, corn, and other feed from the U. S. A. and Germany.

The creameries range in size from 800 to 1,600 cows, and are all whole milk creameries. The milk is collected by a large bodied wagon and delivered every morning, every day in the week. The creameries are built very substantially of brick with plenty of light and ventilation. The floors are all of white tile and the walls and ceiling are white enamel painted with about four feet of white tile wall facing.

Butter is Main Product

The co-operative creameries in Denmark engage mostly in the manufacturing of butter and use about 95 per cent of the sweet milk received; 2.6 per cent of the whole milk is retailed, and in about 900 creameries nine per cent of the skimmilk and 2.5 per cent of the sweet milk is made into cheese, mostly for home consumption. Their payment system is practiced to make payments every two or four weeks, which is based upon their weekly Copenhagen butter quotations. The milk payment is based on fat content and weight. Normally, about 80 to 90 per cent of the skimmilk is returned to the farmers.

Rational Adjustment of Production

The economies brought about by co-operative marketing in Denmark have been affected in the functions of assembling, processing, grading, and packing. Co-operative marketing has also resulted in a rational adjustment in the agricultural production, so as

(Continued on page 545)

Does Not Tramp Silage

HOARD'S DAIRYMAN:—You were speaking of some one who did not spread the ensilage while filling silo. I have not had any one in silo while filling for three years. The ensilage keeps just as well. The fact is, I am afraid the man in silo would not keep on top of the corn and get buried.

Bristol, Conn. S. D. N.

Twin Calves

One of my pure-bred Guernsey cows calved today and had twin calves. Do you know whether or not they would be likely to reproduce so that it would be worth while to raise them? I have heard that twins are generally barren.

Manitowoc, Wis. G. S. G.

Twins, where both are female, will breed and twin bulls will breed; also a male twinned with a female will breed. It is so unusual that a heifer twinned with a bull will breed that we consider it unwise to raise such an animal for the small chance that she will reproduce.

Pile Spuds Shallow

"Pile the potatoes that have signs of brown rot in shallow layers and allow a free circulation of dry air. This will prevent the soft rot from taking possession of the tubers," so declares R. E. Vaughan, potato disease specialist, Wisconsin College of Agriculture.

Vaughan has just returned from a trip out into the potato fields of one section of the state and found the brown rot in every field that he visited. He is also receiving reports from other counties showing brown rot infection. It is possible that the rot infection has also spread over the south and eastern areas of the state, for it was in these localities that heavy rainfall prevailed, which coupled with late frosts helped to produce conditions that foster the brown rot growth on the tubers.

"Brown rot is a disease that invariably follows the late blight of the vines," says Vaughan. "When conditions are such that the vines continue to harbor the blight, brown rot settles under the skin of the tubers. It gives the potatoes a shriveled up appearance with a brownish coloration under the skin. A secondary condition that follows the brown rot is the soft rot. This comes about when the potatoes are dug wet and piled in deep piles. Such conditions start the potatoes to heating, and with brown rot present there will soon be a mess of soft rot that continues to spread to every potato in the pile.

"Sort out every potato that has any signs of brown rot, and then pile the remainder of the tubers into a shallow pile where there is a free circulation of dry air and there will be very little danger of the wet rot."

Use and Abuse of the Separator

HOARD'S DAIRYMAN:—There are few farm machines that are as universally used and abused as the cream separator. It is by far the most delicate and needs different care and attention than the average farmer gives it if he would get the years of service that the manufacturers build into it.

Will the separator skim clean? It will providing you operate it according to the directions. How long it will continue to skim clean depends upon the care you take of it and the material and workmanship that has been put into it. As soon as the bowl begins to vibrate the separator will begin to lose cream. It may be but a small per cent but it won't take long to run the price of a good machine into the skimmilk. Thousands of cream separators now in use are losing enough cream every few months to pay for a good machine, and the owner is ignorant of the fact.

How long will a cream separator last? That depends upon two things, the machine itself and the care you give it. If you buy a good machine it should last twenty years or more. The bowl is the heart of the machine and the part that usually gives trouble first. If the bowl becomes worn until it does not run smooth you can exchange it for a new bowl at a small cost. When this is replaced, the bowl spindle and the upper and lower spindle bearings should be examined by your dealer or a company representative. If they are found to be worn they should be replaced with new parts and then you will have practically a new machine. The other parts seldom give trouble and will last practically a lifetime if kept clean and well oiled. A good separator with proper care will run approximately ten years without giving any trouble, but in a majority of cases it would save money for the user to have the above mentioned parts renewed every five years.

What size machine should I buy? Get one large enough. There is very little difference in price between a large and a small capacity; but ten minutes saved twice a day for 365 days means over twelve ten-hour days. A large machine will last longer on account of the fewer number of hours it will have to run to do the separating. One big objection to the big machine in the past was the hard turning, but today you can buy a large capacity machine that will turn as easily as the small machines did some few years ago.

After you have bought your cream separator, study the instruction book until you know it by heart and then follow the instructions that it gives. Here are a few simple rules that if followed will save a lot of trouble:

If your machine turns hard, nine times out of ten it is the oil. Drain out the old oil, clean the bearings, and clean all the sediment out of the oil case; then refill with the best oil you can buy. Don't go to your dealer and call for just separator oil and let him dump some out of a barrel into a dirty can. Insist on getting the best oil he has in stock, even if it does cost more. It will be cheaper in the long run. Be as careful of the oil you use in your cream separator as you are of the oil used in your automobile or tractor.

Keep your machine level at all times. More machines are ruined by setting them on an unlevel foundation than by all other causes put together. Almost any machine will run good setting on an unlevel foundation for a short time, but the weight of the bowl will soon wear the spindle and bearings on the one side until the machine is ruined or cause costly repairs to be necessary. As a rule, very little attention is paid to leveling the machine, but no machine made will last as long or run as good on an unlevel foundation as it will where it is set perfectly level.

Start your machine slow. Take plenty of time starting, as jerking and heaving on the crank is hard on the machine and liable to spring some of the working parts. Run the machine at the speed recommended by the manufacturer. Always use the milk or cream screw to regulate the density of the cream. Never try to regulate the density of the cream by turning slowly or fast or by partly shutting off the flow of milk into the bowl.

Idaho. C. E. SPRADLING.

Milking Machines

HOARD'S DAIRYMAN:—The men who really enjoy milking a bunch of cows at the beginning and end of a hard day's work just for the pleasure that there is in it are few and far between. Probably it is chiefly for this reason that the minds of farm people have so long dwelt upon the hope that some day all the work of milking might be done by machinery.

The Texas Agricultural Experiment Station has just issued Circular No. 30, entitled "The Practicability of the Milking Machine", which summarizes the results which that station has obtained with the use of a milking machine and gives also the opinions of other investigators. Some of the most important facts printed in that circular are repeated here.

Mechanical milkers were invented more than fifty years ago but the early machines were crude and imperfect and it is only within the last twenty years that they have come into practical use to any considerable extent in this country. They are in more common use today in Australia and New Zealand than in the United States. There are quite a number of different makes of modern milking machines but they nearly all operate upon very much the same principles and differ from each other only in location, shape, and arrangement of the different parts.

Whether milking by machine has any influence upon the amount of milk which a cow gives has been much debated but the general consensus of opinion is that it has no influence either way, provided the cows are stripped by hand after the machine is through. In the Texas experiment there was a slightly greater decrease where the machine was used but the difference was so small that it might have been due to something else. It is probably possible to omit the stripping by hand on special occasions but it is not a good general policy because the small amount of milk left in the udder is the richest and also causes the cows to go dry quickly.

At first thought one would be inclined to expect that the milking machines would produce cleaner milk than milking by hand, but actual counts of the number of bacteria present show that it is the other way around. It is possible to produce a very clean milk with a low bacterial count using the milking machine, but it will require a higher degree of care and watchfulness in cleaning than would be required to produce the same grade of milk by hand. However, the difference is not so very great and other things have much more to do with the cleanliness of milk than the question of the use of the milking machine. Users of the milking machine cannot be too careful in the care and cleaning of the rubber parts of the machine. The number of bacteria is not nearly so important as their kind and of course the use of the machine will neither create nor eliminate disease germs like those of tuberculosis. Very likely the machines would produce cleaner milk than hand milking in dairies where the cows' udders were not washed or cleaned before milking.

The question of how long it takes to milk a cow by machine as compared with milking her by hand is of special interest, because this is the real economic reason for the existence of the milking machine. In the Texas experiment it required 7.3 minutes to milk a cow by hand and 4.6 minutes to milk a cow by machine including the time required for stripping. In other words, a man with a two-unit machine could milk a little more than three cows while a man by hand was milking two. The machine saved 2.7 minutes per cow but it required 23.7 minutes per day just for the extra washing and care of the milking machine parts. Thus a man would have to milk at least five head of cows twice per day by machine before the time saved in milking would equal that loss in caring for the machine. However, it takes almost no more time to care for the machine for thirty cows than for five and so the time saved on all cows after the first five would be a clear gain. This is the fundamental reason why machines are more successful and more practical in larger herds than in small ones. The machine saves so much time per cow milked and not a given amount of time for each machine used. Therefore a man must milk a fairly large number of cows before his saving of time can possibly equal the cost of the machine.

There are some other benefits to be obtained by the use of the machine. One or two men with a machine could milk a larger number of cows than they could possibly milk by hand, and this adaptability of the machine to times of sudden labor shortage, such as epidemic sickness, harvest time, etc., may be very valuable. On the other hand, a sudden breakdown in the milking machine in a dairy which was depending entirely on it would be very inconvenient.

During the first three years of its use, the machine cost the experiment station each year as follows:

Interest and depreciation	$ 41.45
Repairs	47.87
Power (electric)	100.00
Oil, soap, salt, and other chemicals	5.00
Total per year	$194.32

Twice as many cows could have been milked with very little increase in expense, whereas the net amount of time saved would have been more than twice as great. This makes clearer than ever why the economic success or failure of the milking machine is so dependent upon the size of the herd.

There is much variation among individual cows, some being easier to milk by machine than others, just as some others are better suited to hand milking. Probably more time will be saved with cows which are high producers than with those which are low producers because the machine is more efficient on a full or nearly full udder than the one which is nearly milked out.

In summary it may be said that the principal advantages of the milking machines are the time or labor which it saves, the pleasure of using it, and its availability in time of emergency. Its chief disadvantages are the cost of its services and the extra time and care necessary in cleaning it. Its disadvantages are very nearly constant in amount, no matter whether the herd is large or small. Its advantages increase very much with the size of the herd and with the price of labor and with the unreliability of the labor. The statement is frequently made that no one with less than fifteen cows can afford to use a milking machine and nearly anyone with more than thirty cows can afford one. This is a good general statement but may not apply to all individual cases. The cost and character of the labor supply is the biggest consideration, after the size of the herd.

Texas College of Agriculture. J. L. LUSH.

Hoard's Dairyman

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General Manager - - - FRANK W. HOARD
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Coming Events

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Dec. 10-16—Pacific Slope Dairy Show, Oakland, Calif.

Another Holstein Record Broken

There is a new Holstein champion in the junior three-year-old class of the 305-day division. Canary Snowball Gettie, bred by R. E. Ammeter, Washington, and now owned by the Western State Hospital of that state, produced 22,132 lbs. milk containing 767.78 lbs. butterfat (959.72 lbs. butter) and carried a calf for 195 days of the test.

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, D. C., Nov. 5—This industry of dairying, the largest single factor of the great industry of agriculture, and producing annually a product and a turnover which places it among the leading half dozen industries in the United States, has very large interests in almost every detail of policy and leadership which may come into effect in the establishment of the Coolidge-Conservative government which will take full charge on March 4, 1925, and which will take a preliminary test of handling the reins when Congress resumes work in December. One thing to be kept in mind is that the Congress which sits from December to March will be the same old Congress, not the new one elected Nov. 4th.

When the next Congress meets there will be complete reorganization in both Senate and House. In two key places in the House, the dairy industry becomes vitally interested, the choice of a speaker and the choice of a chairman of the Committee on Agriculture. Congressman Nicholas Longworth of Cincinnati is the most talked of candidate for the speakership. Speaker Gillette has been elected as U. S. Senator from Massachusetts, making a vacancy in the speakership which the Republicans will undoubtedly fill. Hon. Gilbert Haugen, old, tried, and effective friend of the dairy industry and all other agricultural industries, is the present Agricultural Committee chairman. He will retain this position unless entirely unforeseen conditions arise.

In the Senate there are also two key places and some additional interest in the selection of new members of some of the committees, especially the Senate Committee on Agriculture and on Appropriations. The key places are the chairmanship of the Committee on Agriculture and of the Agricultural Sub-committee of the Appropriations Committee. These places are now held by Senators Norris of Nebraska and McNary of Oregon, both re-elected. Both are likely to be continued, unless the possibility of grouping Senator Norris with the "Radical Bloc" in the Senate arises which might, in some extreme interpretations of party rules, make him ineligible for the Agricultural Committee chairmanship. Dairy representatives would view this change with some alarm, it is believed, as he has been very friendly to dairy and general agricultural interests.

Visitors to the Dairy Bureau are pleased with the new offices now occupied by the Bureau in the East Wing, ground floor, main department building.

One of the last official acts of Secretary Wallace before his death was the appointment of E. W. Sheets to be chief of the Animal Husbandry Division of the Bureau of Animal Industry. This division of the B. A. I. was co-ordinate with the Dairy Division before the latter was raised to full Bureau rank, and is the division of the B. A. I. which works most closely in connection with the Dairy Bureau. In many ways the basic work of animal husbandry and of the Dairy Bureau, in so far as they relate to animal husbandry research and the improvement of the live stock industry, are closely related. Mr. Sheets' work, of course, covers in a general way the sheep, swine, horse, and poultry industries as well as beef cattle. It is only when the research enters the special phase of milk secretion, that the real work of the Dairy Bureau is found to be separate and distinct from the general work of the Bureau of Animal Husbandry.

Mr. Sheets is a West Virginian, former head of the Department of Animal Husbandry in the State College of Agriculture at Morgantown, in which position he succeeded Dr. T. C. Atkeson, who was head of that department of college work in addition to being dean of the college for a long period.

Two paragraphs of the current summary of agricultural conditions from the November "Agricultural Situation", issued by the Department of Agriculture, will be read with interest by every dairyman who is looking ahead for information as to his side issue prospects:

"There are apparently fewer hogs in sight for next year than at any time since 1920. The corn situation indicates light weight hogs, and the trend of hog production in Europe is almost the same as here. All the factors in the hog situation seem to mean more than an even chance of higher hog prices.

"A drop in hog production might play some part in the beef cattle situation. The country is apparently still 'long' on cattle. The run of beef stock to market is heavier than last fall, and it is going to slaughter rather than to the feed lots. Cattle raisers probably are now in the most distressed position of any major group of producers."

Commenting on this a dairy expert says it is fortunate that the beef cattle market is not any too good at this time for the future of the dairy industry. If beef prices were up there would be a rush to sell dairy cows under the present low prices of butter, which would precipitate a period of violent fluctuation in butter production and butter prices for the coming year would be unhealthy, to say the least. Butter production is heavy, but this authority advises careful weeding out of poor, marginal cows, rather than any wholesale reduction of producing animals.

Strong endorsement of many dairy organizations is being received here directed to President Coolidge, asking the appointment of Hon. Charles H. March of Litchfield, Minn., to be Secretary of Agriculture. Others now receiving favorable commendation are Dr. Raymond A. Pearson of Iowa; former Assistant Secretary C. G. Pugsley of South Dakota; E. E. Faville, editor of the Western Farmer, Washington; and Howard M. Gore, assistant Secretary of Agriculture.



HOLSTEIN COW, HELM VEEMAN WOODCREST

The new world's record milk producer among 4-year-olds. In 365 days she produced 36,217.7 lbs. milk and 1,003.86 lbs. butterfat (1,254.8 lbs. butter). This is the second largest milk record for a cow of any age, being exceeded only by that of Segis Pietertje Prospect. It is interesting to note that three other cows by the same sire, Sir Veeman Korndyke Pontiac, have records above 29,000 lbs. milk and we are informed that 14 sisters of the new champion, all in the same herd, have milked over 100 lbs. a day. Helm Veeman Woodcrest is owned by F. M. Helm of Kings County, California.

League Buys More Certificates

The Board of Directors of the New York Dairymen's League has authorized Treasurer Chester Young to buy the fourth lot of the association's certificates of indebtedness, series "A", maturing in 1927. Certificates with serial numbers ending in the digit "5" will be purchased at the association's office, 120 West 42nd St., New York City, up to November 21, 1924, at 95 per cent of the face value and accrued interest at 6 per cent to November 1st. All certificates offered to the association must be endorsed across the back with the name of the holder.

The certificates which the association has previously offered to purchase were valued approximately at $1,500,000. The association was able to buy actually less than one-third of that amount.

Treasurer Young said: "Although the association is anxious in the interest of good business to buy these certificates for its sinking fund, the officers are highly gratified over the fact that the members show a reluctance to part with their securities.

"A great many certificates were turned in by persons who bought them from members who needed cash badly and parted with them at a sacrifice before the association started to make purchases. Those persons have realized a handsome profit. League members, who are refusing to sell their certificates, know that the League's finances are sound and that the interest and principle will be paid when due. They have confidence in their association's business and in their own ability to run it. They wish to cash in to the fullest extent on their own investment."—Dairymen's League.

California Dairy Show

The Pacific Slope Dairy Show, which will be held at Oakland, Calif., December 10—16, promises to be better and larger than any of its previous shows. Larger exhibits, more dairy associations, more breed organizations, more of every phase of the dairy industry will take part in the dairy show this year. When the first annual show was held at Stockton, Calif., four years ago, 9,000 square feet of floor space was used. At Oakland, this year, 35,000 square feet will be needed to care for the reservations already made. It is no small undertaking to put on a state dairy show and the leaders of the California dairy industry are to be commended for the good work they are doing and are entitled to support from all branches of the dairy industry.

Opinions, Brickbats, and Bouquets

These two columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you: It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Bureaucracy or Freedom

HOARD'S DAIRYMAN:—For a long time I was not in sympathy with your editorial position in reference to fixing prices for farm products and your position that the federal government can do but little to assist the farmers directly in securing better prices. It seems to me something could be done when the prices of farm products fall far below the prices of other commodities. Everyone seems to agree that agriculture is a fundamental industry and that the prosperity of the nation as a whole depends upon the prosperity of the farmer. I have been doing considerable thinking about price fixing, about the government assisting agriculture, and have about come to the conclusion, after reading what you have stated in your paper and from other sound and reliable sources, that this would be the greatest mistake that could possibly come to agriculture.

About one-third of the people of this country are engaged in farming and the other two-thirds are our customers. It is but natural that they want to purchase food and clothing as cheap as possible. This is the natural tendency of all people. It is also the desire of farmers to sell their products at as high a price as possible.

When I first favored the government rendering direct assistance to the farmer, it didn't occur to me that the time might come when it would be a political issue and that there would be a candidate representing the farmers' interest urging to put the price of wheat at $1.50 or $2.00 a bushel and there would be a candidate from the consumers stating he would reduce the price of wheat to $1.00 a bushel. This would make a very interesting campaign. Since customers desire to purchase cheap food, the candidate urging the fixing of lower prices would undoubtedly be elected.

I can see now that the quickest way to enslave agriculture would be to start a scheme to fix the prices of agricultural products. Your method of selling poor, unprofitable cows, efficient methods of farming, and a better system of marketing are really the solution of the farmers' problem as it is the solution of the problems of all other industries.

Then, too, there is another side to this. If the prices of farm products are fixed, then the prices of wages must be fixed, and this would mean establishing another bureau or department of government.

I am confident now that it would be a most serious mistake for the government to interfere in price fixing or attempt to regulate, in any way, the work of farmers. Let's have equal opportunity for all and special privilege to none. I can see now by attempting to regulate everything and fix prices would ultimately lead to a bureaucracy and our freedom would be gone.

Minnesota. JACK BRADLEY.

Who Is Right?

HOARD'S DAIRYMAN:—I have been very much interested in the discussions appearing in Hoard's Dairyman concerning the eradication of tuberculosis from cattle. There must be something wrong somewhere. One man boldly gives several reasons against testing while another man just as vigorously gives as many reasons in favor of testing. Apparently both men are sincere and base their ideas on personal experience, at least to some extent.

All of this tends to leave us hard working dairy farmers more or less up in the air about the whole matter. Isn't there some way in which we can find out who is right and wrong? Do cattle have tuberculosis? Is there a practical, accurate test? Can tuberculosis in cattle be spread to hogs and poultry? Can anyone tell by looking at a cow whether she has tuberculosis or not? Is there any danger of the test used infecting cattle with tuberculosis? Farmers ought to find out a little more about this testing before they go in for it.

Missouri. N. H. R.

Railroads and Six Per Cent

HOARD'S DAIRYMAN:—Some time ago I noted in your paper that the railroads are not guaranteed a 6% return on their investments. This was news to me, for I had been led to believe that the railroads were guaranteed a return on their investments. I couldn't just understand how some railroad stock could be selling so low if the owners were guaranteed a 6% return. It seemed unfair that any corporation or individual, for that matter, should be guaranteed a return on any business undertaking. It would be a snap to enter business and be assured of a profit. A man would not have to exert much energy, would be relieved of all worry; in fact, he would not have to do much thinking if the government or any other agency would come forward with money at the end of the year to pay for losses and provide a sufficient amount to guarantee a profit. This is what we are all looking for, but, after all, if any such thing were developed in this country, how long would we continue our advancement and development?

What every industry needs, farming, railroading, manufacturing, or what-not, is fair laws enacted, both by the state and federal government, permitting each group of citizens to carry on their business and give no special advantages to any group. It is unfortunate that so many people turn to the government, hoping that it can pass laws, fix prices, or that it can do this or that to increase their incomes. The function of the government should be rather to preserve order, to protect lives and property, and to permit each person to pursue his course in the securing of wealth.

I feel better satisfied with our railroad laws now, since I have learned that they do not guarantee a return to those who have money invested in them. The sooner all individuals and industry quit looking to the government for help, the better it will be for the welfare of this nation.

Illinois. R. M. P.

Never Again

HOARD'S DAIRYMAN:—You may consider me a lost son. When you tried to have me renew I took no heed, but being without your paper, I found out what a great help it really was to me. I shall never be without it again. I will subscribe for five years on that account.

Kansas. J. D. KLEIN.

Why Do They Do It?

In special bulletin No. 89, of the Minnesota Agricultural Extension Division, there is found a statement relative to the causes for the variation in costs of producing pork on different farms, that we think is worth repeating.

"Cost records show that occasional farmers can sell hogs at $6 per hundred and get the market price out of 60-cent corn. Those who succeed in doing this use rations that include an adequate amount of skimmilk, tankage, or other protein feed and good clover, alfalfa, or rape pasture. In addition, they gave free access to clean drinking water, kept their herds relatively free from disease and intestinal round worms, and have convenient arrangements for feeding and watering. On the other hand, there are occasional individuals who find there is no profit in feeding 60-cent corn to $9-hogs. These farmers usually have rations that lack an adequate supply of protein found in skimmilk and tankage, inadequate pastures, and their hogs are heavily infested with intestinal worms and other parasites and diseases."

The farmer who produces pork at a loss because of his failure to give attention to crop production and feeding management, when there is a better way, is not only doing himself and family an injustice but also he is helping to depress the price of hogs to other producers because of putting a surplus on the market that was actually produced at a loss.

If the cause of this were beyond the control of these men it would not be so bad. To have successful methods within one's reach and then ignore them is bad business.

Chicory

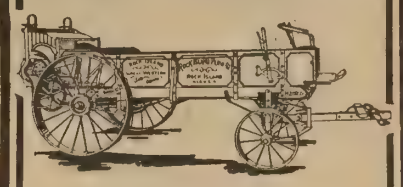
HOARD'S DAIRYMAN:—Perhaps chicory is an acquired taste like that for sweet clover. It is one of the seeds included in the Scotch Clifton Park mixture of deep rooted plants for deepening soils and withstanding drouth I have grazed it here in Colorado. In France it is used as a soiling crop Americans think small British pastures funny, yet it is the only way to correct grazing except on land of uniform quality. So sure as a pasture contains both delicate and coarse grazing the former will be neglected and get to coarse before the cattle graze them. Even in uniform pasture land there will be such a surplus of feed at the height of the growing season that coarse patches will develop which cattle will only eat when the finer pasturage fails. Where pastures are in rotation, subsequent cropping ability from the subsoiling ability of a plant is very important. Sweet clover certainly meets the case better than any single plan and relieves us of many of the old time problems of pasture that very few ever had the patience to work out.

Colorado. L. OGILVY.

Uncle Ab says he notices that folks have most confidence in men who are in earnest.

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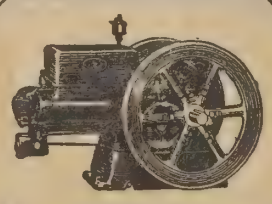
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Mr. Farmer, Spare That Tree

(Continued from first page)

have been hard hit by the high and increasing lumber costs and that our farmers are curtailing needed farm construction. Disregarding even the serious situation of the present—what is the American farmer going to do for a timber supply ten years from now? He will either share in a sane reforestation policy, grow his own timber, or pay export prices for nearly every stick of wood he buys.

Summed up, national prosperity is endangered by the depletion of American forests and the man most concerned is the farmer.

Turning attention away from the actual needs of the American farmer for timber on his own farm, consider the amount of wood that is needed to market his products. Wisconsin cheese makers need wood, as do the California and Florida fruit growers. There is hardly a thing marketed that is produced on the farm that does not require wood somewhere along the line from the farm to the consumer.

Take merchandise that the farmer buys, furniture, farm implements, and down to newspapers and magazines. Competition has become so keen among buyers of wood and pulp supplies that they are now placing orders to secure timber "regardless of cost". The vehicle and handle industries compete with the furniture maker for the hardwoods. Implement manufacturers are now drawing upon every conceivable source—farmers' wood lots, small mills, and even specialized operations designed to secure hickory alone. The farmer pays the bill.

When the Minnesota fires were sweeping parts of the northern section, a forest ranger made this explanation,—"Here are the results of trying to make non-agricultural lands into farms ahead of the economic needs. The reason we could not stop these fires in time to prevent a loss of $3,000,000 is partly due to the policy of draining the swamps for "blue print" farms. Swamps are the natural protection of the forests against fires."

It is not my purpose to review big figures and cumbersome statistics. Suffice to say that the American farmer knows lumber is high when he flivvers down to the village lumber yard to buy a plank or order lumber for a new barn. And what is more, there is no relief in sight under present policies.

For a ten-year period, 1910 to 1920, the total area of improved farm land increased six per cent due to agricultural expansion in the South and West and the stimulus of war time demands for crop production. But in 18 of the eastern and central states the improved land shrunk at the rate of 800,000 acres per year. New England lost 32,000 farms, with a net decrease during the ten-year period of more than 1,000,000 acres. Evidently America is not land hungry, certainly not enough to rob her natural forest lands ahead of the economic time.

The forestry problem today consists of keeping fires out of the areas which will be reforested naturally and in planting other areas which are now unproductive. In the latter class much of the abandoned farm land would come.

There are 326 million acres of cut-over timber land in the United States. The condition of this land ranges from complete devastation to relatively limited areas which are producing timber at or near their full capacity. Government reports show that there were nearly 20,000,000 acres of timber land burned during 1918 and 1919. Each year the loss mounts up and it must be remembered that three-fifths of the original timber supply is exhausted. Cut-over timber land pays no taxes and produces nothing for the world.

Certainly, in view of the ravages of the fires, the reduced supply, and the mounting prices, the American farmer is interested in forestry policies. Also, the little farm wood-lot becomes a more important part of the farm. Carefully guarded, it will be a cash producer for the farmer.

A remedy for this appalling waste must be found in a concerted effort to stop the devastation of our remaining forests and put idle lands to work growing timber. It is inconceivable that the American farmer will be so blind as to forfeit the economic advantage in enormous timber growing districts and that we should go on using our once glorious forests with no provision for growing more until wood products are priced on a basis of imported luxuries.

Education in forestry is one of the crying needs. The farmer is not only concerned from a purely price and business standpoint, but forests have an immense value as watershed protection and for their ameliorating effects on climate. Timber is a regulator of water flowage. There is no wild rush of water, severe floods in a forest section to strip the top-soils. Rather, woods conserve the water for the land.

The soldier of the A. E. F. was surprised at the number of forests and wood-lots there were in France and Germany, nations starving for land. He noted that these forests were kept up with only "selective cutting" permitted. Over-mature trees were culled out but the thrifty Frenchmen never touched a tree without replacing it. The French forests were clean, for "madam" used the twigs, fallen branches, and dead limbs for the good old fagots that warmed the hearts of many an American soldier in his training area billet. The French considered their forests and wood-lots not in the terms of lumber—but in terms of soil fertility and water protection. Timberless lands in a rolling section mean a district of badly gullied farms. It does no good to put on lime, high-tension fertilizer, if the first torrent comes along and washes the top soil to the low places. Soil erosion has become a serious problem in timberless sections.

There is not much chance under present laws of lumber companies doing any amount of reforesting work. Taxes eat up any possible chance of profit except in states where timber land that is replanted is taxed only for land values until the timber is ready to cut.

"The farmers of the United States are at one and the same time the largest consumers of forest products and the largest owners of forest lands. They have the permanent interest in a systematic national plan of reforestation. They will find profit in taking their own wood-lots out of the slacker class and they may well take a hand in bringing about a common-sense plan of reforestation based upon necessary and equitable public control," states W. B. Greeley, forester.

Next time the farmer buys a "two by four" piece of pine and has to fork down deep in his jeans for the price, let him think the above statement over.

Aunt Ada's Axioms: The trouble with most education is that it aims to teach folks what to think instead of how to think.



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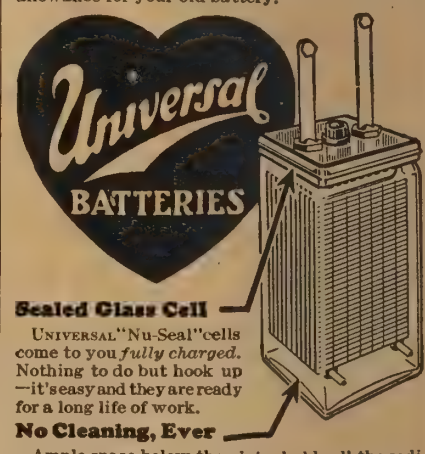
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Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Co-operation and Co-operative Creameries in Denmark

(Continued from page 536)

to comply better with the consumers' demands and requirements of the market, and it also aided the producers' attention on the value and dependability in quality and regularity of supply.

Has Export Associations

Denmark has eleven co-operative export associations which are doing a successful business. The largest of these is the Danish Dairies' Export Association, Copenhagen, with 227 member creameries, and its members are scattered all over the kingdom, while the other associations restrict their membership to creameries in a limited territory. The eleven export associations are federated into one national organization, "The Danish Federated Co-operative Butter Export Association". These associations work together in carrying out certain trade policies and standards.

No Butter is Stored

The association remits to its member creamery every week the actual price received for the butter, minus the cost of operation. The creameries agree by contract to deliver its total butter production to the association for one or two years, except what is used for home consumption. The association is a non-stock association and capital needed is supplied by loans. The members are also jointly liable for any financial obligations incurred by the association. No butter is kept in storage, but clean sales are made every week. The butter from each creamery is shipped each week, usually on Monday afternoon or Tuesday morning, to the association warehouse where it is scored by government inspectors, pooled and sold by the association.

The Heifer's Udder

HOARD'S DAIRYMAN:—Well bred dairy heifers that have been well fed while carrying their first calf should freshen in good condition, but some may have caked udders. The whole udder may be caked, or one quarter or one side. Still others may have a round, hard place on the bottom or in the rear. Where large seven-day records are desired it is sometimes the practice to make no attempt to remove this swelling, trusting it will milk down and increase the per cent of fat. Where high protein feed is started too soon after calving with this kind of an udder, these hard places never disappear.

If one side is large or the swelling is low down in the rear, a tilted udder is the result.

If it is bulging on the bottom, a broken down udder is bound to follow going a little lower with each succeeding calving.

In some cases it may go so low that it is not possible to milk the cow from one side. The result is no one wants such an animal to milk or for a breeder.

After studying the conditions that cause udders to lose their natural shape and get more deformed with each calving, we are interested to know how to check these conditions before the udder is ruined.

When a heifer's udder is badly swollen before calving, feed only light, laxative feeds for a few days before and after freshening, such as bran, ground oats, oil meal, beet pulp, or fresh beets with good legume hay and silage.

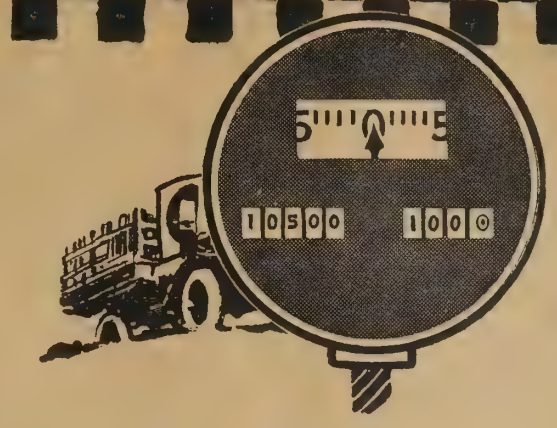
Having provided the right feeds, reduce the swelling in the udder as soon after freshening as possible. Plenty of good, hard rubbing and kneading with pressure enough so you can feel the tissue give way, will do wonders. Showering with cold water and painting the hard places once daily with iodine will help most cases.

Next in importance is to get all the milk at all times. Good milkers always massage each quarter with one hand and milk with the other to bring down the last drop of milk. This is a quicker and more thorough way than thumb and finger stripping. Get the inflammation out soon after calving and always get all the milk if you want good udders that will stand crowding for any kind of records.

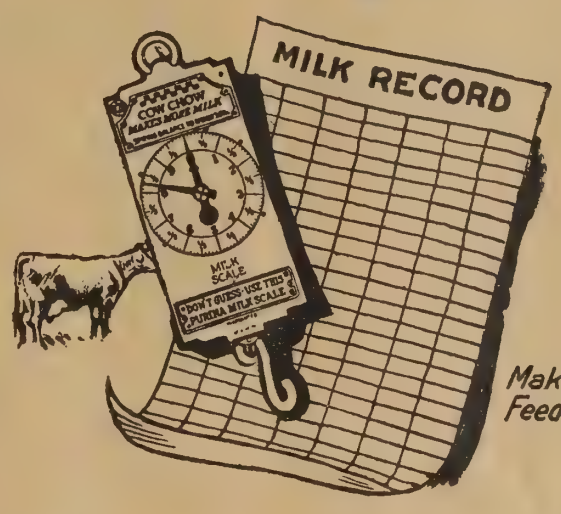
If you expect a heifer to do her best as a full age cow, feed her liberally during this first lactation and as soon as her udder seems normal. If possible, milk her three times a day for at least a part of her lactation.

F. H. PEABODY.
Cornell College of Agriculture.

"The art of reading is to read in such a way that with the utmost economy of time one can secure the richest of results."—HAMILTON WRIGHT MABIE.



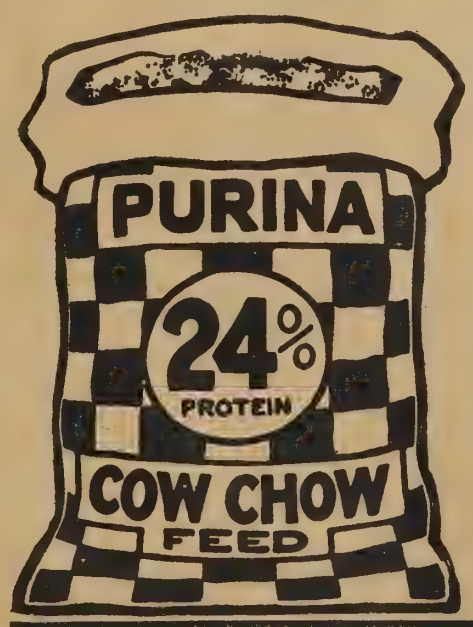
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How many miles on a gallon of gas?



Why not—
How many gallons of milk on a dollar's worth of feed?

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Know what You are getting for every Dollar's worth of Feed



THE only way that the thousands of Checkerboard feed dealers are selling Purina Cow Chow—and the only way they *want* to sell Cow Chow—is on the basis of the *results it brings to dairymen.*

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WHEN GAS ENGINE OVERHEATS

R. U. BLASINGAME, PENNSYLVANIA

WHEN the engine overheats the trouble may not be due to lack of water in the radiator but may be due to one or more other things which follow.

How to Clean Out Cooling System

By adding a pound of washing soda to each gallon of water required to fill the radiator and allow to remain in cooling system one day, when engine is in use, will clean out the scale, rust, and sediment. Drain the soda water and flush the cooling system thoroughly with fresh water. When draining out system, if the drain cocks are removed, there will be a larger hole, through which foreign matter can escape, than in case the pet cocks are just opened. The pet cocks have rather small holes.

Most of the water which comes from springs, streams, and wells contains some lime or other salt in solution. When the engine is run a certain amount of the cooling water is vaporized. This tends to leave a crust or layer of scale on the walls of the cooling jacket around the engine. Rain water is best to use.

This crust insulates the cooling water from the combustion chamber, in which case the heat from the engine is not carried away rapidly. Consequently, the engine may overheat and knock without showing evidence in the cooling water. Avoid boiling of cooling water to prevent scale formation.

Hose Connections

Hose connections, between the radiator and engine, are made up of layers of fabric and rubber. It often happens that the fabric will come loose and hang down in the water stream, from the engine to the radiator. Again, they tend to become flat, obstructing the free circulation of the cooling water.

The use of alcohol, glycerine, kerosene, and other anti-freezing mixtures may cause hose connections to deteriorate. Good plan to renew them each spring. Freezing of water may damage hose connections also.

Broken Water Pump

Water pumps may be broken when they are frozen up, by cranking the engine. The impeller blades run close to the pump housing. A small cake of ice will sometimes cause them to hold fast and the rod which runs the pump may twist off.

Thermo-Syphon cooling systems, such as used in the Ford engine, do not use a pump. The heated water around the engine rises and flows through the radiator by becoming hot. If the water is below the top hose connection it will not circulate, causing overheating.

Fan Belt Slipping

If the fan belt slips, because of being too loose or covered with grease, the engine will overheat. Too often the fan spindle is not lubricated often enough. It usually runs at high speed and the grease may run out and leave a dry bearing. This will cause overheating on account of belt slippage.

Thin Lubricating Oil

With the use of the heavy grade of fuel, now being sold, and especially with the use of kerosene in most tractor engines, there is considerable "crank case dilution"; that is, unvaporized fuel slipping by the pistons into the lubricating oil. The fuel destroys the lubricating value of the oil. Thus pistons rub against cylinder walls and bearings against crank shaft. This *metal* to *metal* contact causes excess heat and consequently causes rapid wear in the engine parts.

Renew the oil about 800 to 1,000 miles in summer, 300 to 500 miles in winter for automobiles; for kerosene tractors about every 12 to 18 hours. To keep down excessive dilution of the oil in cold weather, by choking the carburetor to start, pour a tea-kettle of hot water over the carburetor and manifolds. The engine will start readily. This also saves the storage batteries.

Spark Retarded

If the spark lever is retarded the engine will heat when in operation. The reason for this is that when the gas is set on fire at the time of greatest compression, advanced spark, it burns quickly. When the spark is retarded the pressure on the gas is slightly released. This causes slow burning. Advance the spark.

Incorrect Carburetor Adjustment

In case the carburetor is adjusted for too lean or too rich a mixture the burning of the gas is not rapid, when the spark occurs. This slow burning tends to heat the engine. Too rich mixtures also tend to form carbon in the combustion space of the cylinders because there is not sufficient air to combine with all the carbon of the fuel. The remaining carbon which is unburned tends to settle in the engine and on top of the piston.

Clogged Muffler

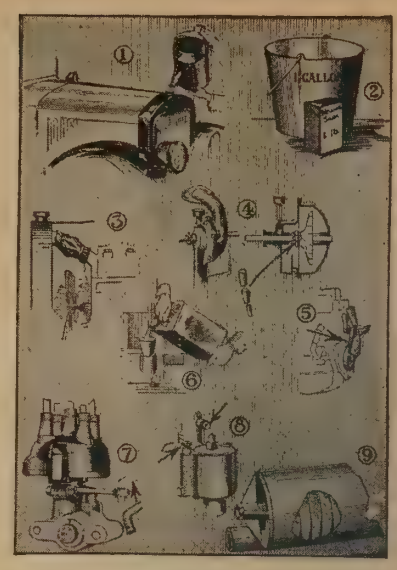
If carbon collects in the muffler and clogs it up, the free passage of the exhaust gases away from the engine is retarded. In other words, the pistons have to push the hot gases out. This back pressure on the engine causes it to heat.

Choking the carburetor when starting causes too rich mixture at carburetor. Also, running down hill with ignition off tends to clog the muffler with carbon. There is no saving of gasoline by running down hill with ignition off. The pistons are drawing in gas just the same as if ignition was on. The engine becomes too cool, fuel condenses and runs down into crank case oil, oil is forced into cylinders, and the muffler is likely to be blown off at the bottom of the hill when the ignition switch is turned on.

Clogged muffler can be cleaned to some extent by removing it and lightly tapping it with a stick and shaking out the carbon.

Carbon Deposits

Wool is one of the best insulators known. Carbon, in finely divided



WHERE TO LOOK WHEN ENGINE OVERHEATS

form, possibly comes next. When the top of the piston and the cylinder head become coated with carbon, the excess heat which is generated within the engine cylinder, at the time of explosion, can not escape readily into the cooling water. Nor it can not escape down the skirt of the piston. It is insulated by the carbon. This causes excessive heat in the cylinder and pounding is the result. This pounding causes excess pressures at the bearings and on the crank shaft. Consequently, the oil film is squeezed out of the bearings and metal to metal contact results.

Clean the carbon out by removing the cylinder head or burn it out. Cleaning is best, then one is sure that all of the carbon is removed and at the same time the valves can be ground and inspected for burning and warping.

Oil in Radiator

If oil gets into the radiator a thin film will form over the inside surface of the radiator. This oil film will tend to keep the heat in and cause the engine to heat. Don't use a greasy bucket to fill the radiator. The washing soda mentioned above will remove the oil film.

The radiator full of water does not always insure proper cooling.

Observe Golden Rule Sunday

Golden Rule Sunday, December seventh, the day set aside for furthering the spirit of good will and providing funds for Near East Relief orphans, is serving as an occasion for extensively advertising American canned milk. On this Sunday we are asked to eat a simple meal such as is served every day to Near East Relief orphans and make as large a contribution for their support as we would like to have made for us if conditions were reversed. In other words, to carry out the spirit of the Golden Rule:

"Whatsoever ye would that others should do unto you (or unto your children if left destitute) do ye even so unto them."



Near East orphan, restored to health by American condensed milk, holding in her hand a milk tin converted into a cup in an orphanage tin shop.

Golden Rule dinners bring to mind the important part American canned milk has played in saving the lives of thousands of destitute children. As a matter of fact American canned milk was an unknown product in the Near East until introduced by American relief workers.

These dinners are now being held in all the large cities throughout the country to familiarize people with the significance of Golden Rule Sunday. Orphanage ware is used on these occasions, including tin cups made from American condensed milk cans. The brims have been smoothed and handles attached by the orphans as a part of their work in industrial training classes. (Every child under the care of the Near East Relief is taught a trade.) A simple menu is served including macaroni with cheese, stewed fruit, and cocoa. On such rations costing less than five cents a day, the homeless little kiddies thrive so well that the death rate in a Near East Relief orphanage is less than the death rate in the average American city.

At one time the Near East Relief was one of the heaviest purchasers of canned milk in the country, and probably will continue to be a heavy purchaser until the orphans have become sufficiently skilled in dairying to provide for their own needs. Experts have been sent from America to teach the children scientific farming on land given over to the Near East Relief for that purpose by the Armenian and the Greek governments. American relief however has paved the way for American canned milk and it is now a successful rival of the Swiss and French brand in Asia Minor and Greece.

American condensed milk is largely responsible for saving the lives of 100,000 children. At the present time 40,000 orphans are enjoying the protection of the Near East Relief. Sixty per cent of these are less than twelve years of age. In addition to the children now being supported by American philanthropy, there are close to 100,000 children, mostly orpans, living in refugee camps without either a home or a country, a condition brought about by the expulsion of Christians from Turkey. It is to aid these pitiful little waifs as well as to continue the care of Near East Relief orphans that a general observance of Golden Rule Sunday is being advocated by President Coolidge and leaders in practically every line of endeavor.—Near East Relief.

West Virginia Dairymen Meet

The West Virginia College of Agriculture has announced the program for the third annual meeting of the West Virginia Dairymen's Association to be held at Wheeling, November 20-21.

Following the business session will be talks by J. H. McClain of Washington, D. C., and A. A. Borland of Pennsylvania State College. At 6:30, evening of the 20th, the "Dairyman's Banquet" will be held with Dr. Eugene Hardy as toastmaster. The Hon. Frank O. Lowden, of Illinois, Professor Erf, Ohio State University, and Professor E. L. Anthony, West Virginia, are on the evening program.

The program for the 21st is in the nature of a tour. Six stops are to be made and a number of very important subjects including equipment, crops, dairy cattle, and systems of management make up the program.

Says Sam: The best leaders in a community are usually those who don't know they're leaders.

Dairymen's League Notes

HOARD'S DAIRYMAN:—One gets letters if he writes about things that concern the farmer very considerably. Some of these letters are evidently from a sincere motive although others are doubtful. One of the former sort is just at hand and refers to my comments in Hoard's Dairyman relative to the Dairymen's League. The writer wonders whether I am really ignorant of facts or "like some others would prefer that they (facts) be kept out of sight".

It is not my purpose to plead guilty of either offense. I may not know all about the League affairs but may have given them some study. It is not my intention to keep facts out of sight. On the other hand, I do not like the attitude of some, as I see it, who would place all the blame possible for all results that may be up for criticism, rightly or otherwise, on the Dairymen's League. It does not follow that one can approve of every move made even when upholding the organization. Mistakes there have undoubtedly been and such there always will be no matter who manages.

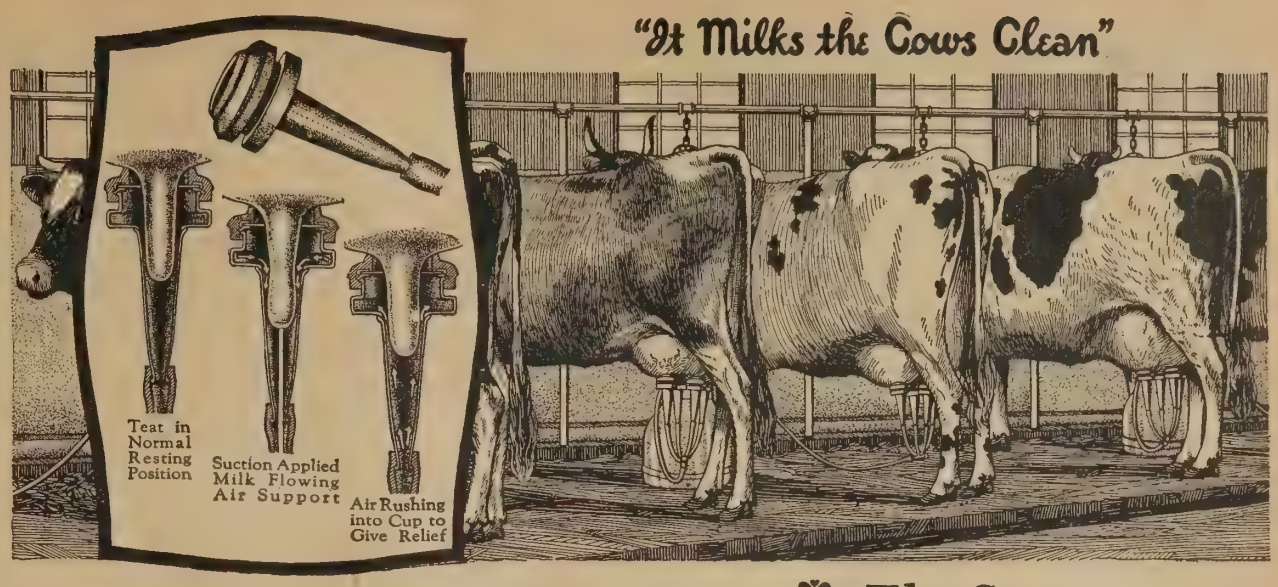
My critic refers to what he calls the ruinous price cutting of last winter. He shields the Sheffields and blames the League. He says that in his opinion it was the League policy of dumping the greatest possible amount of fluid milk "on the platform" that did most to break prices. Here we differ. All the information that I can get that seems at all reliable goes to show that the League did not reduce the fluid price until others flooded the markets. It is true, I think, that had the League withheld all milk from the market except that which the regular fluid buyers through the pool would take, the non-poolers might have obtained higher fluid prices. Probably that is what they desired of the League and so did their patrons but League patrons also desired to sell some milk in the fluid market and some of it was offered at prices nearer those that the non-pool buyers made than had been the custom. It is my understanding that the League still held its fluid price somewhat above that at which others offered to take. In my opinion the League attempted to hold the price too high at one time. It pleased the non-poolers but a lower price was necessary. Had not others lowered very much below the League price, then the organization would not have been obliged to drop as it did. It held its fluid price the highest of any, if the information that I get is correct.

It is all a great mistake that we have these factions each trying to down the other and especially to down the Dairymen's League. This organization had done wonders considering the heavy and deadly opposition that it has had to meet. Could it have had the sympathetic attitude of other elements it would in my opinion have been able to benefit all the dairymen in the territory much more. I support it because it is the only real plan of organization that any one has put into operation. Give us a better plan that can be worked and I would be anxious that dairymen adopt it.

Then my correspondent adds: "Don't you know that there are thousands who are getting better prices at creameries and cheese factories?" I confess that I have looked anxiously and diligently for such returns. I know that such statements have been made but I do not know where they can be verified. I admit that League prices are not generally satisfactory but for the most part these prices cannot be bettered while this disastrous war goes on in its attempts to destroy all that dairymen have been fighting for these years. These prices it seems to me are better than we could have had but for the organization, but a united effort of some sort on an honest basis might have given us somewhat more. Not the prices that some demand but fairly decent prices.

What is the hardest to understand is the position of many outside the League that the League gets its members low prices and enables some few outsiders to realize more, therefore destroy the League and let everybody go into the slough together. There are some League members who feel that they would almost be willing to go in themselves in order to let these high-riders get a full share of the bumps as they would before long, if not immediately, after this sustaining power had been removed. Is it best to try it?

New York. H. H. LYON.



The *Perfect* Teat Cup

THE *perfect* teat cup—that's a pretty strong claim. But, practically, you cannot say less of the Burrell Air-Cushion Teat Cup. It was perfected in 1910, and, after 14 years, it still stands unequalled in satisfactory performance. Its perfection is generally recognized.

First, it is almost *universal* in its adaptability to different sizes and shapes of teats. Second, it is free from dangerous rubber linings. Third, it is made of nickel silver—simple, sanitary, light, strong. Fourth—and extremely important—it is *comfortable* to the teat. The sum of which means that the Burrell Air-Cushion Teat Cup is *the perfect Teat Cup.* Your own opinion will confirm this.

Observe the illustration above. In the upper part of the cup you will see an air space, or reservoir. When the vacuum suck is applied, the air is pulled down and forms a pad, or cushion, between the teat and cup. Then between the periods of suction, air rushes back into the air space, or reservoir, and gives complete relief to the teat.

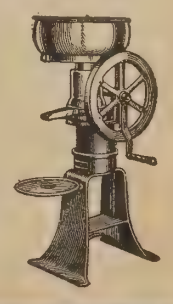
The Burrell Air-Cushion Teat Cup is one of four features which should determine your purchase of a Burrell Milker. Send for catalog and study the others. Address Dep't. 10.

D. H. BURRELL & CO. INC. LITTLE FALLS, NEW YORK

The Separator You've Wanted

It Skims the Milk Clean

Thousands of dairymen feel they are missing the benefits of the best dairy equipment unless they are Burrell-equipped throughout. That is why they are buying this new Burrell Cream Separator—as good as the best separator Burrell ever built but selling at a much lower price. It is equipped with Burrell-Simplex Link Blades, which have never been excelled for close skimming. The Bowl Bottom is bronze. Such parts as the spindle, bearings, high speed gears, are heavier and of higher quality than is usually found in separators of corresponding capacities. The frame is simplified. The tinware is also simplified and of the high quality you are accustomed to find in Burrell products. Sizes: 350, 500, 750 and 1000-lb.-hand or power driven. *Send for catalog.*



TRADE MARK

BURRELL

MILKING MACHINES AND CREAM SEPARATORS

Agricultural Exports Heavy

Exports of agricultural products from the United States were greater in volume during September than in any preceding month since September, 1921, says the United States Department of Agriculture. The index number of volume of all agricultural exports in September was 158 as compared with 100 which is used as the average for the period July, 1909, to June, 1914.

The index number in July was 67, which represented the smallest volume of exports in ten years, and in August the index was 92. The rapid increase since July is due to the beginning of shipments from the new crops of wheat and cotton, and is to a very large extent seasonal, although this year the seasonal increase is greater than usual because the exportable surplus of both cotton and wheat is expected to be larger than last year.

Wheat exports in September were 32,662,000 bushels compared with 15,408,000 bushels in September last year. Exports of wheat flour in terms of grain were 7,000,000 bushels compared with 14,400,000 bushels in September 1923. Rye exports were 11,560,000 bushels compared with 2,560,000 bushels the same month last year. The increased exports of bread grains appear even more important, says the department, when it is considered that the export price of wheat in September was $1.36 as compared with $1.12 a year ago, and the export price of rye $1.23 compared with 95c last year.

Cotton exports during September were 774,000 bales of 500 pounds, being the largest September exports since 1913. Dairy products and tobacco increased over the preceding two months, but exports of pork products decreased, the exports of hams and bacon being smaller than in any month since December, 1921.

The September index of volume of all agricultural products, excluding cotton, was 229; grains and grain products, 409; cattle and meat products, 138; dairy products, 470; cotton, cake, and oil, 100; fruits and vegetables, 181.

Peter J. Shields of California is the owner of Riga of Marion Farm, a mature Jersey that recently completed a very good 365-day record.

Riga produced 760.94 pounds fat and 15,632 pounds milk in this test, and demonstrated her ability to maintain production at a uniformly high rate to the end of the twelfth month. —American Jersey Cattle Club.



How We Farm Women Make Money

A year ago last spring our home demonstration agent asked our club if we would like to try for the state prize as a Standard Home Demonstration Club. One of the requirements in the contest was that each member of the club must carry on some remunerative home project. One lady asked if our butter and eggs would be counted and she said yes, so we passed that point for without exception we all were doing something to make money at home.

When I read the request in "Can You Help?" in our page of the Dairyman, I thought surely in the varied activities of our club women there might be an inspiration and encouragement for some other home women who long to make money at home.

Several years ago, just before Christmas, we were having a little spread at the club. As an additional treat one lady brought a tray of the prettiest and most delicious homemade candy. She told us her children were selling it to make their Christmas money. She solicited our trade for our candies for the holidays. Since then her candy kitchen has grown and some of the stores in town have handled her product. She also keeps a flock of pure-bred chickens and sells lots of eggs for hatching as well as mature stock for breeders.

One day a milliner asked one of our ladies to sell her a hen for Sunday. She, knowing how busy the milliner was, running her store and house, too, delivered the hen all dressed ready for the pot. Of course the milliner was delighted and willing to pay a few cents a pound more than the hen was worth on foot. A few days later she received a telephone call saying, "Are you the lady who sells dressed chickens?" Thus through a little thoughtfulness she established a means of disposing of all her surplus poultry at a good profit.

One lady makes artificial flowers; another raises gladiolas, and these she sells to hotels and restaurants at fifty cents a dozen; the bulbs also bring in their share of the cash. She also does embroidery work for sale, specializing in bedroom sets and lunch sets in the easy new embroidery in colors on unbleached cotton. These are easily and quickly made and command a good price.

When Mrs A.'s husband grew ill she decided to help keep down the mounting expenses by taking orders for some household articles. She was handicapped by the sickness at home also because she had no way to go but to walk. She had the faith and grit to try and she won. She walked wherever she could; a neighbor loaned her a horse and buggy and soon she had a good list of customers who bought her goods regularly.

Two of our members were dressmakers. One reported the purchase of a home knitting machine; she said she found quite a little time that she could give to the work, a few minutes now and then, throughout the day. She moved away and I do not know how proficient she became, or how profitable the investment was.

The members who reported butter and eggs as their work all had secured private customers and furnished a high quality product. One lady packed her butter in the standard creamery cartons. She was able to sell it at the same price at which the creamery was selling theirs.

Another friend told me not long ago that she had gone into business. I thought that with a big house and five children to care for she had been in business for quite a while but this is what she did. Some friends told her they thought she could sell some of her home-made cakes, pies, and bread if she would only advertise them. She didn't want to put an advertisement in the paper for she said then everyone that knew her would know what she was doing, so she had some little cards printed, advertising the things she would sell. These cards she mailed to those she thought would buy. She has filled a good many orders since then and she also makes jellies and preserves to order.

Boarders furnished the money for some of the others; this work really brought in quite a bit of money for so much used on the table was raised in the farm garden.

Some women I know make it an annual endeavor to enter a large variety of home work at the fair in their county. One fall one said she had won enough money in premiums to buy all her winter clothing and the school books as well.

One fall we had a great many apples. After canning all we could we decided to dry them rather than let them go to waste. Mother had never liked the old, dark dried apples so she fixed a flour barrel on the back porch. In this barrel she put a pan with some coals and when we finished one pan of apples she would add a little sulphur to the coals and put the apples in a flour bag and hang it over the stick in the top of the barrel. Then the barrel was covered and left until we had prepared another batch. Then the first ones were spread to dry. When the apples were dry they were nice and white and cooked as white as fresh apples. We sold all our surplus to a grocer for the same price he had been selling the ordinary apples for in the store.

I believe no form of gardening pays so well and so quickly as a hotbed. One year I wanted one but could not afford to buy the sash. We took thin muslin and tacked it on a frame the size of our bed. Then we made another cover by sewing heavy burlap bags together; this we fastened to the back of the bed and tied the other corners. We started our bed about ten days sooner than usual. During the day we would throw back the heavy cover; at night it was replaced. We raised better, sturdier plants than ever before and sold far more than enough to pay for the trouble of making, besides having all we and the neighbors wanted.

Those that make a business of selling truck from their gardens try to anticipate the market, they find out what people want, and they try to have their gardens very early or very late and thus put their produce on the market when the market is not glutted and the price is high. Some of them specialize in some line, such as strawberries, pickles, tomatoes, or salad plants as their leading line. Often housewives in the town will refuse to buy from some people saying, "I always buy from Mrs. X. and I will wait for her."

There are a few things we women have learned. Big oaks from little acorns grow but they do not grow all in one night. We must be content to start small, especially if we have but little capital to invest, and be content to grow bigger. We must not despise the homely things that are around us every day. It has been said every woman can do some one thing better than she can anything else although she may feel she is not especially trained. We must each try to make the thing we like best to do be our project. We must strive to give quality—value for money received and endeavor to make people "once a customer always a customer", and last but not least we must have faith in ourselves and courage to try and try again.

Virginia. (MRS.) GRACE GORDON.

Orange Jelly

If the children came down with whooping cough just at the time when you should have been making your jelly you can at any time of year make up some from this recipe since oranges are always available Acknowledgement is made to the extension service of the South Dakota Agricultural College.

Take six oranges and three lemons, thick-skinned if possible. Peel off the yellow rind and discard but peel off the white rind and put through the food chopper. Cut up the pulp, add to the white rind, cook for one hour with 12 cups of water. Strain through a jelly bag, let stand for 24 hours and then pour off the clear liquid.

To every cup of this liquid add one cup and two tablespoons of sugar. Boil the juice eight minutes, add the sugar hot and continue to boil vigorously from five to seven minutes. If you cut bits of the yellow rind into the jelly it will have a more decided flavor.—LUCY THOMPSON.

Primrose Itch

I don't know whether or not that is the right name for it but will identify it well enough for those who have had it.

I once knew a woman who suffered all winter from a dreadful itching that at times kept her from sleeping and at all times made her desperately uncomfortable. It showed itself mostly in reddish blotches on her hands but often spread to her face and at times went to other parts of her body. I saw her a few times with her eyes nearly swelled shut with it.

Of course she tried every remedy under the sun and went to the best skin specialist in the town where she lived. He said at first that it was her nerves and then gave it other causes and finally admitted that he was entirely in the dark and advised her to see a famous skin doctor who was to visit their town the next week.

She made an appointment. The great man took one searching look at the sore spots.

"Have you any primroses in your house?" was all he asked her.

"Yes, I keep two in my dining room all the time," she replied, in amazement.

"Go home and throw them out and if I am not mistaken you will throw your itch out with them," he told her.

It was as near magic as anything I ever saw. The places began to lose their angry look the next day

(Continued on next page)

Miscellaneous Fashions



No. 1923—Attractive Design, easy to make. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3½ yards 40-inch material with ¾ yard 24-inch contrasting.

No. 1255—Child's Pajamas. Cut in sizes 2, 4, 6, 8, 10, and 12 years. Size 8 requires 2⅝ yards of 36-inch material.

No. 2183—One-Piece, Slip-On Dress. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3½ yards 36-inch material with 3¼ yards binding. The embroidery design is included in our hot-iron transfer pattern No. 720 which comes in blue and yellow and which costs 15c extra.

No. 2229—One-Piece, Tiered Dress. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 4⅝ yards 40-inch material with 7¼ yards binding.

No. 2199—Attractive Style, can be made with or without the cape back. Cut pattern off as shown in small diagram if cape back is not desired. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3⅝ yards 40-inch material.

No. 2034—Costume Slip, to be made with built-up shoulders or with straight upper edge and shoulder straps. Cut in sizes 16 years, 36, 38, 40, 42 44, and 46 inches bust measure. Size 36 requires 2⅝ yards 36-inch for the slip with straight upper edge

No. 1941—Attractive Apron Style. Cut in sizes 36, 40, and 44 inches bust measure. Size 36 requires 2⅜ yards 36-inch material.

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STUDY OF SOPHIE 19TH

S. R. WINTERS, Washington, D. C.

WILL the owners of dairy cows of the future be enabled to apply measuring instruments to animals and determine their relative capacity for yielding milk and butter? That is, by taking outside measurements of cows and defining these in terms of the size of their internal organs, can dairymen find out approximately the number of gallons of milk and pounds of butter that a certain cow is capable of producing?

While experiments undertaken by the Bureau of Dairying of the United States Department of Agriculture do not reduce the proposition to these concrete terms, they do contemplate a relationship between the conformation of a cow and her milk and butterfat producing ability. This relation has been picturesquely referred to as that of "form to function".

The science of dairy husbandry has already determined that the ability to produce milk and butter is controlled by inheritance, but that the inheritance of our dairy cows is not pure for the factors determining high production. A method for the selection and mating of pure-bred dairy cattle in such a way as to secure cattle that will be pure-bred for these factors determining high production has not been definitely found, though we believe we have found the method whereby this can be accomplished in the use for generation after generation of sires that have proven their ability to transmit uniformly high production to their daughters. We believe we can determine the heredity of a sire in so far as milk and butterfat are concerned, if that sire has a number of daughters whose producing capacities are known more surely than we can tell the hereditary make-up of a cow from her own production record.

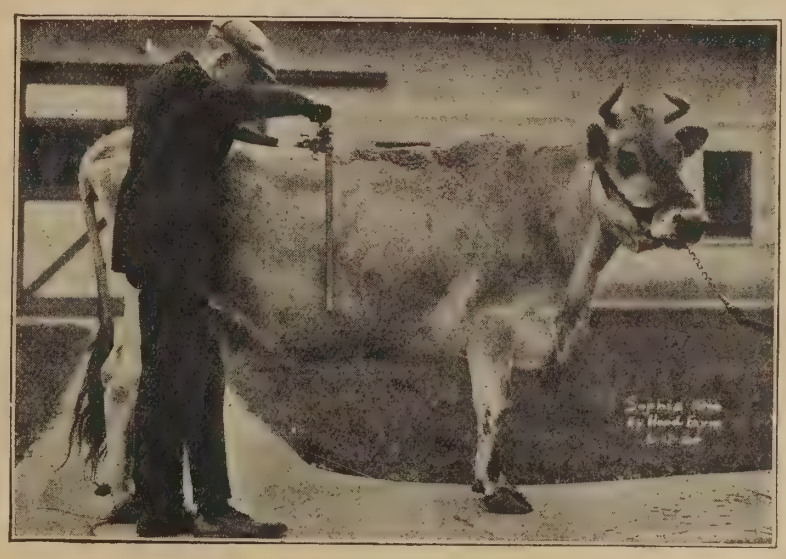
Now, however, cows belonging to the same family—sisters, if you will—may evidence a disparity in production of from 4,000 to 6,000 pounds of milk. This irregularity in the failure of high producing animals to unfailingly transmit their capacities for yielding relatively large amounts of milk and butter to their offspring prompts the Bureau of Dairying to study the problem from its several angles. The desired objective, of course, is to develop breeds of dairy animals that will transmit their milk and butterfat producing capacities to their offspring with the same regularity that they now impart their breed characteristics. That is, the Guernsey, Jersey, Holstein-Friesian, and other breeds of dairy cattle have perpetuated their color scheme and other characteristics by which they are unmistakably identified.

R. R. Graves, in charge of the dairy cattle breeding investigations of the Bureau of Dairying, United States Department of Agriculture, even doubts whether we really know the fundamental relationship between the conformation of certain parts of the body to the functions of the body of a cow. The skeleton of Sophie 19th, recently slaughtered and dedicated to the cause of science, has been placed in the office of Mr. Graves as the basis for studying the relation of "form to function". The carcass of this animal, once proclaimed the world's greatest butterfat producing cow, is to be installed permanently in the halls of the Bureau of Dairying.

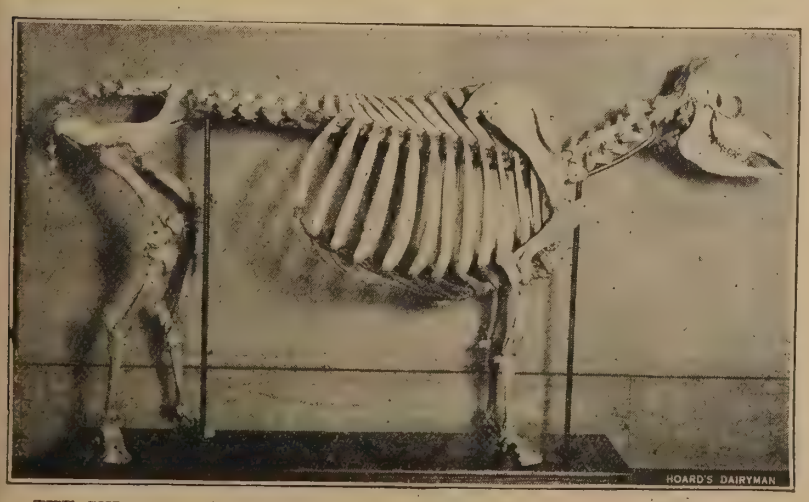
The skeleton of Sophie 19th is probably the most perfectly preserved form of any cow in the history of dairy husbandry. Formerly, the meat of cows, whose skeletons were subject to preservation, was removed by boiling. This is likely to soften or impair the bones of the dead animal. In this instance, the flesh was taken off by a chemical process administered by an expert of the Smithsonian Institution. The removal of the flesh and the mounting of the skeleton were so skillfully executed that the body of this celebrated animal is spliced in only three places—that is, there are only three parts to the main skeleton. Even the tip end of the cow's tail-bone is intact, and the delicate bones of the organs of nose and ears were not impaired by the chemical process of removing the flesh. The truth is, the skeleton information is faithful in likeness to that great milk producing animal when clothed in the living flesh.



SOPHIE 19TH, PHOTOGRAPH TAKEN JUST BEFORE SHE WAS KILLED AND HER SKELETON DEDICATED TO SCIENCE



TAKING MEASUREMENTS OF SOPHIE 19TH



THE SKELETON OF SOPHIE 19TH, THE WORLD FAMOUS JERSEY COW RECENTLY DEDICATED TO SCIENCE, HAS BEEN INSTALLED PERMANENTLY IN THE BUREAU OF DAIRYING

Sophie 19th successfully defended the title of "World's Champion Jersey Cow" for several years. She yielded 91,869 lbs. milk and 5,280.64 lbs. butterfat during a period of seven years. Outward measurements of this remarkable milk producer were taken before she was slaughtered at the Beltsville dairy experiment farm and after being killed her internal organs were measured. In this respect, she will figure in a series of studies that are a departure. That is, under the active direction of W. W. Swett, of the Bureau of Dairying, the relation between the internal organs of a cow and her producing ability will be correlated.

"Already we have demonstrated that animals with small milk veins and wells do not necessarily have a limited flow of blood to the udder," states R. R. Graves, in charge of dairy cattle breeding investigations of the Bureau of Dairying, "that a part of the flow may be taken care of in the interior veins that are not visible outwardly.

"Even if it is found that there is a relationship between conformation and producing capacity," continues Mr. Graves, "a favorable conformation will only indicate that it will be possible for a certain animal to produce well, provided that animal has the inheritance that will stimulate large production. Since we know that inheritance governing all characteristics is transmitted through the germ plasm, it does not seem possible that we will ever be able to tell by the appearance of an animal what its inheritance for production is.

"But it does seem possible that we may be able to determine the limitations of an animal to produce by its conformation. For example, if it is found that a large heart girth is correlated with a large heart and lungs and that a large heart and lungs are essential for heavy production and an animal is found with a small heart girth, its producing capacity will be limited regardless of how good an inheritance for great production it may possess.

"Does a large heart girth really indicate a large heart and lungs; and, if so, do large heart and lungs really mean that the dairy cow having them is more capable of heavy production of milk and butterfat than a cow with much smaller heart and lungs? Also, do large stomach and intestinal capacity mean greater ability to digest and assimilate large amounts of feeds?

"When the actual relation between outward conformation of the body and corresponding organs is definitely known, and when the relationship of the size or development of certain organs and the producing capacity of the cow is known, and if these relationships are positive, then our knowledge of conformation will assist us in eliminating the animals that have a weakness that would inhibit the full development of an inheritance for great producing capacity."

A study of the outward measurements of the body and the internal organs of Sophie 19th, reinforced by observations of hundreds of other dairy cows, will enable the Bureau of Dairying to attack this problem with a definite assurance of solution. Specially designed instruments are now being built in the scientific laboratories of this bureau for determining the correlation between the outward measurements of the body and the size of the corresponding organs of a cow. This analysis, in turn, will throw light on the fundamental problem of whether there is a relationship between the dimensions of the internal organs and the relative producing ability of animals. Then, if this relationship is established with a certainty, breeders of dairy animals of the future may succeed in transmitting from one generation to another the quality of yielding great quantities of milk and butter, just as breed characteristics are now unfailingly inherited by the bovine offspring. This would be accomplished by selecting pure-bred breeding animals whose measurements of the body organs conformed to the standards prescribed by the results of the studies outlined in this article.

By producing 636.34 pounds fat and 12,765 pounds milk in 365 days, Fontaine's Golden Florence shattered the senior two-year-old Jersey record for South Carolina, and established a new, higher standard for production in this age class.

Florence is owned by Fred H. Young of South Carolina.—American Jersey Cattle Club.

Calf Clubs in Addison County

S. G. JUDD, VERMONT

ONE of the brightest spots in the field of agricultural endeavor is the encouraging growth over the entire country of boys' and girls' club work. In this movement Vermont is proud of her progress, and the writer feels that the results achieved in calf club work in Addison County are worthy of recognition, not only throughout Vermont but in the other states of the nation. While credit is due to all who have co-operated with the Addison County Farm Bureau and the State Extension Service in fostering this project, it is only fair to give especial honor to those who have carried the burden of direct responsibility: Miss Mildred B. Everts, county club agent, and F. R. Churchill, the county agricultural agent.



EXHIBIT OF THE MOOSLAMOO CALF CLUB

Starting in 1922 three clubs were organized in the towns of Addison, Weybridge, and Waltham with a membership of 21 farm boys. In 1923 the enrollment grew to 24 with the organization of a calf club in the town of Salisbury.

In selecting names for their clubs, the members largely featured points or factors of local geography or history. The club in Addison is known as Grand View; in Weybridge as Otter Creek; in Salisbury as Mooslamoo, and in Waltham as the Ethan Allen Calf Club.

These clubs have the conventional form of organization and hold regular meetings. Each member owns and raises a calf each year, taking the entire care of the animal. The boys who started in club work the first year now own three animals that they have reared, a few of their heifers being in milk.

At some of the club meetings during the year instruction in judging dairy cattle and in feeding, fitting, and exhibiting calves has been given by County Agent F. R. Churchill and S. G. Judd, the extension dairy specialist. The careful supervision of the work by Miss Everts and the inspiration of her personality kept the club members and their leaders up to their best efforts.

The Addison County Fair, during the last week of August each year, affords an opportunity for the clubs to publicly demonstrate their progress. The management provides a tent for housing the calves and offers good premiums for calves of all dairy breeds.

In 1922 the Addison County calf clubs exhibited at their county fair 18 pure-bred and 9 grade calves. This increased to 22 pure-bred and 6 grade calves in 1923. The exhibit this fall totalled 44 calves of which 38 were pure-bred animals. The above records show steady growth which has been accompanied by steady improvement in the quality of the calves.

Worthy of special commendation is the high average condition of the animals, showing the results of the careful fitting and training received from their youthful owners. In the exhibition tent the calves have been kept in a clean and attractive condition, affording a striking object lesson to some of the older exhibitors at the fair.



THE CLASS OF CALVES, OWNED BY CLUB MEMBERS, THAT COMPETED FOR THE SPECIAL PRIZES OFFERED BY THE VERMONT HOLSTEIN-FRIESIAN CLUB

Back of the boys are (left) F. R. Churchill, county agent, and (right) E. L. Ingalls, state club leader.

When the classes are called for judging, every boy has been keenly alert to show his animal to its best advantage. An observer feels that here are some expert showmen in the making.

The Holstein-Friesian breed has always predominated in these Addison County club exhibits. Special premiums are offered by the Vermont Holstein-Friesian Club. This year seventeen young pure-bred Holsteins, owned by club members, competed for these special prizes. The pictures accompanying this article will show more plainly than further words the merit of the club exhibits.

At the fair, a team selected from each club is required to compete with the other clubs in a cattle judging contest, and also to give a public demonstration on some subject related to animal husbandry. As a result of good work, at the recent fair the team from the Mooslamoo Club was selected to represent Vermont at the National Dairy Exposition in Milwaukee.

One of the finest things coming out of this work is the interest and the pride developed in the parents of the club members. No judging of the open classes at the fair has a ringside that will compare in genuine interest to that group of friends and parents of the boys that is always present when the judge places the ribbons on the club calves. In Addison County a group of interested parents has offered for next year a premium to be awarded to the club having the best balanced exhibit.

For three seasons the writer has judged the calves at the Addison County Fair, and at most of the other fairs where there are calf club exhibits. Never yet has he known a club member to protest a decision. This spirit of true sportsmanship being developed in these youngsters is a promise of better co-operation when in a short time these club boys become the farmers of Vermont and of the nation.



EXHIBIT OF THE ETHAN ALLEN CALF CLUB

The three boys to the right are brothers, sons of John Clark.

PUTTING UP WITH THE DAIRY COW

Why She Eats Instead of Being Eaten

C. F. CHRISTIAN, OHIO

"WHY, Henry! you wouldn't sell Spot," exclaimed Mrs. Henry Jones, wife of a dairy farmer. "Pa gave her to us when we were married. I don't care if she is twelve years old and hasn't paid for her feed, so the tester says, you're not going to sell old Spot."

Henry scratched his head, looked dejectedly at Spot's record of 80 pounds of butterfat and $50 worth of feed in the past six months, and muttered to the cow tester, "I guess we will have to keep old Spot. She's been a good cow in her day."

The tester turned several pages in Henry's herd record and stopped as the light from the lamp on the table fell on the telltale story of the failure of another cow to pay for board and lodging in Henry's stable.

He begins hopefully, "Here's Blackie. She is a young cow, but even figuring what she will give as a five-year-old, she will lose money for you every year. The longer you—"

"Darn it," exclaimed Henry. "I paid $80 for her at Smith's sale. She was just fresh and the best looking cow in the bunch. Here she is about dry six months after freshening. If I sell her she won't bring $30 for beef, and I hate to pass her on to somebody else."

"That's one trouble with testing. Every one of your neighbors knows that if you have a cow to sell she is no account; either she milks hard, kicks like a mule, or don't pay at the pail," says Henry, as the tester closes the records with a sigh.

"But I wouldn't mind that so much," continues Henry, "if the creamery paid a decent price for fat I wouldn't kick. It's just like everything else on the farm, the fellow that handles it makes all the money. As soon as some of us fellows that's been milking cows ever since we were big enough to sit on a stool began to make a little money, farmers that kept one cow on the place, provided their wives did the milking, got into the business. Now look where we are, flooded with milk too cheap to feed to the hogs."

Misplaced sentiment, the difference between the beef value and the mythical dairy value of poor cows, and the fear that an empty stall in the cow stable will convict the dairy farmer of being too lazy in the eyes of his neighbors to keep a lot of boarders eating at the manger which should be eaten at the lunch counter.

Sentiment has a place in the dairy business. Every city dweller upon whose doorstep a bottle of milk appears each morning as if by magic, should reverence the ground upon which the dairy cow treads, especially the lush green pastures of June, for then comes his cheap milk and butter.

In no other spot is the old saying, "A soft answer turneth away wrath, and a soft pat saves many a spilt pail of milk", more true than in the dairy barn. But, sentiment in dealing with boarder cows is as out of place as sediment in the finished product.

"Fresh cow and calf for sale, price $80," so an advertisement in the paper states. In the market report is the cheerful news: Canners and cutters—3¢ per pound.

Which would you prefer, a blow-out or a slow leak when you and the Ford are 20 miles from home and it is one hour till milking time? The blow-out is dramatic, sensational. A sharp report, followed by the shriek of brakes jammed on suddenly, heads turned your way to catch sight of a possible smashup, and a ruined tire that must be replaced before the journey is resumed.

The slow leak is a devilish thing. Your temper boils, your collar wilts. Milking time arrives, then passes into history and you are still 10 miles from home after pumping the tire for the third time.

Selling the cow that just fails to pay for her feed is put off time after time with the hope that, "maybe she will do better when she comes fresh the next time." It is cheaper to have a blow-out and turn her over to the butcher than to try to limp into good credit standing at the bank with boarder cows.

With what shame and chagrin Henry admits to his neighbor that he is only milking nine. This cringing regard for the neighbors' opinion is doubly manifest if the inquirer happens to know that Henry has room for 15 cows.

Henry Ford, perhaps the greatest organizer for production in the country, told his office force recently

(Continued on page 551)

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Nebr.	Douglas. Co.	Sept.	G. H.	64.7	C. Spangaard
N. C.	Gas.-Mecklenburg	"		47.5	
Mich.	No. Gratiot	"	G. H.	63.4	G. Boyd
"	So. Eaton	"	G. H.	63.8	V. Towns
"	Alto-Kent	"	G. J.	66.4	G. Richards
"	Coleman	"	G. J.	75.1	F. Geiger
"	Rudyard	Oct.	G. G.	62.6	R. Johnson
"	Huron-Ubly	Sept.	G. H.	58.1	E. J. Brackenberry
Ohio	Summit 1	Oct.	H.	57.7	L. F. Wetmore
Ia.	Hancock 1	"	G. S.	57.4	P. C. Juhl
Wis.	Oneida Co.	"	G. G.	63.0	W. Olson
"	Withee	"	G. H.	53.7	E. Poppe
"	Saukville	"	G. H.	51.9	N. Jocque

Association Notes by Testers

Douglas Co., Neb.: Out of 457 cows in the association, 390 were tested during September. Three barns were painted and six were whitewashed. Eight members attended the National Dairy Show in Milwaukee. In September, market milk sold for $2.10 per cwt. and retailed at 11c a quart. —J. T. Pierson.

Gaston Co.—Mecklenburg Co., N. C.: Four herds are on official test. Seventeen members have silos, two being pit silos. Three members use milking machines. One new barn was built. One member purchased a bottling machine. Two herds were tested for tuberculosis. The cost per 100 lbs. milk ranged from $1.35 to $3.39 last month. Milk retailed for 12½—18c per quart. This association was started last June.—C. G. Midyette, Jr.

North Gratiot, Mich.: Two members installed drinking cups. One barn was remodeled with up-to-date equipment and one new milking machine was installed. The condensery paid $1.75 per cwt. for milk in September.—C. H. Blivin.

South Eaton, Mich.: L. P. Smith purchased a fine young Guernsey bull from Minnesota, whose sire's dam has a record of 952 lbs. fat. This young bull was exhibited at the recent National, where Mr. Smith made the purchase.—H. Kardel.

Alto—Kent, Mich.: One dairy barn was remodeled and whitewashed. An association tour into an adjoining county was held for the Jersey breeders. The best herds were visited by four auto loads of interested breeders. One pure-bred Jersey bull and a pure-bred Jersey cow were purchased while on this tour. The creamery paid 39c per lb. for fat in October.—D. E. Bliss.

Rudyard, Mich.: Four poor separators were discovered. Of the 188 cows tested, 11 produced over 40 lbs. fat last month. Two silos were filled with sunflowers. One modern dairy barn was built for 30 cows. Water systems, such as drinking cups, running water in front of cows, supplied by artesian wells, were installed in four barns and King System of ventilation in two barns. The creamery paid 38c per lb. for fat in October.—H. Adams.

Coleman Union, Mich.: Of the 244 cows in this association, 69 were dry, 12 produced over 40 lbs. fat., three over 50 lbs., and 12 over 1,000 lbs. milk, and four above 1,250 lbs. Twenty-six separators were tested in the last two months, only two being found in serious condition. The average production per cow is 427 lbs. milk, 17.5 lbs. fat. Thirteen members feed grain. Two milking machines were used in September. One member is remodeling his barn, putting in a concrete floor and stanchions and stalls. In September the condensery paid $1.70 per cwt. for milk.—E. G. Witkowsky.

Withee, Wis.: Wm. Gautsch has two fine three-year-old heifers which were very near the high cow for October, producing 52.8 lbs. fat and 52.3 lbs. fat. Last month the cheese factory paid from 44—52c per lb. for fat, the creamery 41—43c. Milk retailed at 8c per quart.—V. G. Loucks.

Huron—Ubly, Mich.: The high cow for September was purchased last July on the basis of her record in cow testing work in 1923. Silo filling is about completed. Fairly good yields of beets, chickory, and potatoes are reported, but beans are not turning out very well. Quite a few have cut a third crop of alfalfa which yielded well. The tester attended the National Dairy Show. One new silo was erected and filled and one barn is being remodeled. In September market milk sold for $1.60 per cwt., no charge for hauling. The condensery also paid $1.60, minus 25c for hauling.—C. M. Wagner.

Hancock Co. No. 1, Iowa: Last month one separator was purchased and several others were found to need attention. One herd reacted and was sold. Twelve members feed grain and two feed hay. Soil tests taken from fields of alfalfa and sweet clover which were making poor progress show from medium to strong acidity. Many other soil tests were taken in order to prepare the fields for this crop. The creamery paid 38—42c per lb. for fat last month.—H. W. Tiggeman.

Orange Co., Virginia, Report

HOARD'S DAIRYMAN:—The last association year of Orange Co. Virginia, closed March 31, with an average for the year of 6,418 lbs. milk and 291.5 lbs. fat. This was the highest average the association has ever had since its organization in 1914. Thirty-six cows produced over 400 pounds fat and 131 cows over 300 lbs. for the year.

The high cow for the year was a 14-year-old pure-bred Jersey cow, Marigold of Andrewsia, owned by Dr. J. S. Andrews. This wonderful old cow produced 632.1 lbs. fat and 10,193 lbs. milk on twice-a-day milking.

The high herd in butterfat production also belonged to Dr. Andrews whose herd of 24 pure-bred Jerseys showed an average of 7,548 lbs. milk and 415.4 lbs. fat.

The high herd in milk production belonged to Mr. A. C. Wamhersie with an average of 8,609 lbs. milk. This herd showed an average increase of 53.4 lbs. fat over the past year. Six hundred forty-nine animals were tested without any reactors.

It may be of interest to note that every member mixed his own feed with an average cost per cow of $71.09.—J. B. FINK, Tester.

A Cow Testing Plan

HOARD'S DAIRYMAN:—I wrote you last spring about a plan for testing cows without a regular cow testing association. You expressed the wish to learn how this work resulted at the end of the year. I furnished each owner a monthly report and yearly report on each cow. The farmers kept the milk and feed records and sent them to the Farm Bureau office monthly. They got the milk tested at the cream stations.

This was done as a free service this last year. This year we are sending out the sample bottles in corrugated pasteboard boxes to each co-operator and they are returning a sample of each cow's milk once a month to the Farm Bureau office. We will hire extra office help to do the testing and keep the records this coming year. Each co-operator will

(Continued on page 557)



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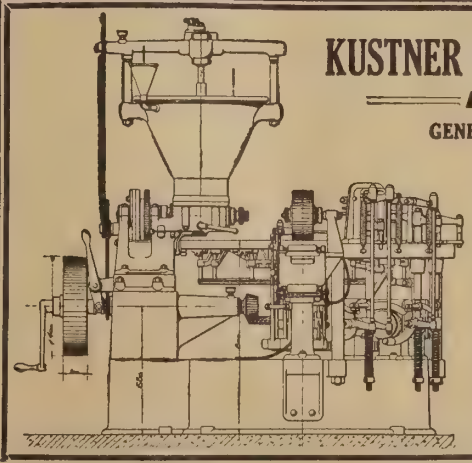
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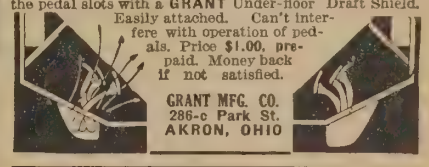
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EDITORIAL COMMENT



"ALL successful agriculture of the world has been developed around legumes."—ALFRED VIVIAN, Dean of the Ohio College of Agriculture.

What a wonderful combination is the dairy cow and legumes! Legumes build the fertility of the soil and help insure a permanent system of agriculture and the cow takes a portion of the legumes and transforms them into the most refined food for human beings.

DR. H. L. RUSSELL, Dean of the Wisconsin College of Agriculture, and Dr. Theodore Macklin of the Agricultural Economics Department of this college have gone to New Zealand for the purpose of studying dairying and the marketing of dairy products in that country. We have made arrangements with them to write us a series of articles relating the dairy practices and the plans of co-operative marketing in that country. Both of these men are thorough students of dairying, of marketing dairy products, and all factors pertaining to successful dairy husbandry. We know the articles they will prepare for our columns will be most interesting and valuable to our readers.

MUCH thought has been given to co-operation the past few years. Too many people have a nebulous conception regarding co-operation, what it can and cannot accomplish. President Bradfute, of the American Farm Bureau Federation, in a recent address said: "If I were to ask 100 men in this audience each to write on a sheet of paper his idea of co-operation, I dare say I would get 100 different ideas." He is right in this contention, unless he were associated with a group of farmers who have been engaged in co-operative effort for several years. Mr. Bradfute also said, "Let me tell you of my measuring stick of co-operation. It can be boiled down to this: He who would co-operate must first adjust himself so other men can co-operate with him." It was Pat who said, "Bridget and I are one, and I'm that one". This does not express co-operative sentiment. To make a success of co-operative effort, each person must yield in his views and then be ready to support the composite idea of all people in both fair and bad weather. Co-operation is not a ready-made coat that can be put on and worn, it is something that must be made and developed.

MINNESOTA CREAMERIES REVOLVING FUND

To create a revolving fund, the Minnesota Co-operative Creameries' Association reserves one-half cent per pound on all butter it sells. It then issues certificates to each creamery bearing 6 per cent interest. The reason for this revolving fund is to pay member creameries promptly and this necessitates capital, for the purchasers of butter do not pay for all butter soon enough to permit prompt payment. The association started with small means, but it has been able to borrow from banks that it might pay the creameries promptly for their butter.

It is not a good practice for any co-operative organization to run constantly on borrowed capital. Every sound and well managed business institution builds a reserve, for it would be rather an unusual institution that did not find itself passing through lean years.

According to A. J. McGuire, general manager of the Minnesota Co-operative Creameries' Association, some creameries wonder whether these certificates are worth their face value. He refers any creamery manager who doubts the value of these certificates to the Northwestern National Bank, of Minneapolis, and the Merchants' National Bank, of St. Paul. We consider it wise for managers of co-operative enterprises to keep their members constantly informed upon what is being done and we like the way Mr. McGuire presents to the creameries who are members of the association what is being done and the reasons for doing it. Silence regarding an organization may be a fruitful source of extravagant stories and create in the minds of the members a distrust which has in more than one instance proved fatal. Providing the members with full information and a sufficient revolving fund to carry on the business of any co-operative enterprise are highly essential to its success.

GOVERNMENT CONTROL OF CHILDREN

The proposed child labor amendment is as follows:

"Section 1. The Congress shall have power to limit, regulate, and prohibit the labor of persons under eighteen years of age.

"Section 2. The power of the several states is unimpaired by this article except that the operation of state laws shall be suspended to the extent necessary to give effect to legislation enacted by the Congress."

It seems clear to us that if this amendment is ratified by the several states, Congress will be given more power than simply regulating child labor. It is given the power to prohibit the labor of persons under eighteen years of age. It is also clear that any law enacted by Congress will impair the state laws if they in any way conflict with the national law; in other words, the national labor law will take precedence over the state law.

Some believe that this amendment, if ratified, will not apply to farm children. It must be remembered that when the resolution was being considered in the House of Representatives, an amendment was offered which is as follows: "Provided that no law shall control the labor of any child in the house, or business, or on the premises connected therewith, of the parent or parents." This amendment was rejected and another was offered, as follows: "But no law enacted under this article shall affect in any way the labor of any child or children on the farm of the parent or parents." This amendment was defeated. We see no reason for anyone drawing the conclusion that if the proposed child labor law is ratified, it will not apply to farm children.

Miss Julia Lathrop, when chief of the Children's Bureau at Washington, said: "I do not think any English authority can possibly realize the eagerness with which we have watched the progress of the Fisher Bill through Parliament, because we saw at once that somebody in England had had the courage to do a thing which nobody in America has been bold enough to do, which was to try to cut, by an indirect attack, the root of rural child labor. The great advantage to us in a discussion of this English measure is that it shows us a way to standardize education in the interest of the future and at the same time to get rid of the one thing we have never dared to attack—rural child labor."

Here again we have evidence that the people who would prohibit children from working until eighteen years of age would have it apply to rural communities as well as to factories. We do not believe in extending any such power to Congress. We do believe that states should have reasonable child labor laws, and the most of them have. It is a crime to us to work children long hours in factories and mines and at many other occupations, but it is a greater crime to enact a law preventing a person from working until they are eighteen years of age. It would be rank injustice to the child and would be conducive to producing weak and incapable men and women. The Ohio Farm Bureau has stated: "Idleness by law is as repulsive as enforced servitude."

The National Grange is opposed to any exploitation of child labor, but it is opposed to the child labor amendment now before the states for ratification. We should have enacted by all states a reasonable child labor law and it is better for the states than it is for the federal government to have such laws. There is a tendency everywhere to take responsibility away from the people and lodge it in some department of government. This is not only leading to conditions that will weaken our people, but it is inflicting heavy expenses upon them. Every time a new department of govenment is established, it is not long before millions are required to sustain it. If the proponents of this amendment simply had in mind regulating labor of persons under eighteen years of age, why would they bring into the amendment the word "prohibit"?

It is plain to see that the real motive for this amendment intends to prohibit the labor of all persons under eighteen years of age. We are opposed to it, for the evils it would correct are far less than the evils it would create.

DAIRY PRODUCTION

"Dairy production has been increasing in recent years in virtually all countries the world over," states the United States Department of Agriculture, "due to the general profitableness of dairying as compared with other farm enterprises. The general depression in the European margarine industry gives added evidence of heavy world production of butter, it is pointed out.

"The most recent growth in dairying has taken place in the comparatively new and unexploited countries, including New Zealand, Australia, and Argentina, and there is every reason to believe," says the Department, "that this expansion is of a substantial and permanent nature.

"Dairymen feel that production will continue to increase throughout the world and that more consideration will have to be given the demand side of the situation."

We shall not only be required to give more attention to the demand for butter, but more attention to the character of the cows we keep and the kind of crops we raise for them. The 300-lb. fat cow will have to replace the 150-lb. fat cow. Alfalfa, sweet clover, or red clover will have to replace timothy. Our tariff on dairy products helps to protect our home markets but it is of no advantage when butter is exported to other countries. At present we are exporting butter to foreign lands and this is bringing us in direct competition with all the nations of the world that are exporting butter. The only way we can compete with such conditions in the world's market is through the use of better cows given better care and better rations.

GOOD SALESMANSHIP ESSENTIAL

A short article has just been received from a correspondent which discusses a vitally important problem in the development of the dairy industry. The question raised is: Why do not more dairy farmers make use of the services rendered through cow testing association work?

Cow testing association work is sufficiently sound in principle that Danish dairymen after 40 years of dairy development have recognized its importance to the extent that it has become a permanent factor contributing its services to the owners of more than half of all the dairy cattle in that country.

The author of this article suggests that an analysis of the reasons why more dairymen in the United States are not members of cow testing associations indicates a possible weakness in salesmanship methods or material in convincing dairy farmers of the value of the work. The farmer may agree that the work is all right but this does not help him to actually eliminate the cows from his herd that are losing money. He wants definite, concrete, understandable information on what the work may actually mean to him in net cash. The only source for the basis of a selling argument to meet this attitude is from the many experiences in the work. There certainly is no lack of information of this kind.

Men who are engaged in promoting cow testing association work have a great opportunity and no less a responsibility. They have a fundamentally sound piece of goods to sell. They have plenty of evidence to draw from in developing their selling arguments.

The use of the best possible salesmanship methods in selling cow testing work to farmers is worthy of careful consideration by every one who is charged with more or less responsibility in developing this great work.

A Cow Testing Plan

(Continued from page 539)

part of the expense. The Farm Bureau will pay the expense for equipment of the tester.

Sixty-three cows in nine herds were tested the first month under the plan in operation last year. Of these, 35 cows in six herds finished a year's work with an average of 292 days on test. The average production was 5,158 lbs. milk containing 205.6 lbs. fat. A grade Jersey owned by F. J. Armstrong took first place with a production of 6,042 lbs. milk containing 304 lbs. fat. The ten best cows produced an average of 268 lbs. fat, giving an income of $82.33 above cost of feed. A herd of the ten best cows would pay their owner $68 a month for his labor, while a herd of the ten poorest cows would pay only $20. Why take a thirty-cent dollar for wages with poor cows?

Last year an average Accredited Poultry Flock of 131 hens brought a total return of $487.22, or a net return above feed of $368.50. Four cows brought a total return of $408.92 and a net return of $199.92. Eighteen hens were equal to one cow in net returns.

L. C. CHRISTIE, County Agent.
Nebraska.

Annual Report of Flathead Shows Progress

The first annual report of the Flathead, Mont., Cow Testing Association, organized July 1, 1923, made by E. R. Ford, tester, shows that a total of 36 herds, containing 586 cows, were tested with an average production of 7,443 pounds milk and 284.7 pounds fat for 247 cows tested for ten months or more.

While the average cost of producing fat was 22½ cents per pound, it is worth while to note that the lowest average cost of production for herds made is 15½ cents and the highest is 30 cents per pound. The most economical cow produced fat at a cost of 10 cents per pound and the most expensive cow produced at a cost of 46 cents per pound.

The highest herd, consisting of two pure-bred Holsteins, averaged 17,103 pounds milk and 522.7 pounds fat.

The highest cow for the association for the year was Johanna Aggie Homestead, the registered Holstein owned by O. K. Iverson. She produced 25,018 pounds milk and 673.2 pounds fat in 11 months. Fifteen cows produced over four hundred pounds fat in the year.

Alfalfa formed the bulk of the hay ration for most members of the association, 25 of them in fact feeding only alfalfa for hay. Twelve members fed either corn or sunflower silage. E. R. FORD, Tester.

FORWARD WISCONSIN
FARM FACTORY COMMERCE

Wisconsin Taxes Are Too High

EVERY citizen, whether a property owner or not, is a stockholder in Wisconsin. As such, he should learn the facts about taxes, because part of the cost of government comes out of his pocket. We all know that taxes are high for everybody. Tax burdens can be reduced if we adopt a program of:

1. **Economy in Government, State, County, Local.**
2. **Spread the tax load by increasing property values through the promotion of agriculture and industry.**
3. **Solve tax problems by economic facts and not politics.**

What Wisconsin needs is not higher taxes on any person or class, but lower taxes for all.

The way to solve our tax problem is to cut the burden and not shift it onto industry.

Wisconsin industry now pays higher taxes than in any other industrial state. Special taxes on corporations in Wisconsin are twice as high as in Michigan, four times as high as in Ohio and twelve times as high as in Illinois.

Indiana, Iowa and Minnesota do not levy any special corporation tax. These are nearby competitive states.

All Wisconsin industry asks of our people is a square deal so that it can hold its own in competition with 47 other states of the Union.

Wisconsin Manufacturers are placing these facts before the people so that we can all work together in promoting better conditions in agriculture and industry. This will mean prosperity for every citizen.

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FARM AND FACTORY MUST PROSPER TOGETHER

Pure-bred Sire Proves Worth

The surest, quickest, and cheapest method of increasing the production of a dairy herd for the average farmer is by the use of a good pure-bred sire. This fact is clearly brought out by the records of a herd in the Fairfax County, Virginia, Cow Testing Association No. 1.

Several years ago a pure-bred Holstein bull of very good breeding was placed at the head of the herd belonging to Mr. Retzer. At the present time Mr. Retzer has a yearly cow testing association record on five of the daughters of this bull, as well as the cow test records of the dams. To make these records comparable, records of daughters were brought up to maturity by the method used by the U. S. Dairy Division. The five dams showed a total production of 31,998 lbs. milk and 1,245 lbs. fat or an average production of 6,400 lbs. milk and 249 lbs. butterfat with an average test of 3.89 per cent. The five daughters showed a total production of 51,857 lbs. milk and 2,086.1 lbs. fat or an average production of 10,371 lbs. milk and 417.2 lbs. fat with an average test of 4.02 per cent; the average increase in production of daughters over dams being 3,971 lbs. milk and 168.2 lbs. fat, or 62 per cent increase in milk and 67.5 per cent increase in fat production. This past year Mr. Retzer has received a farm price of slightly over $3 per cwt. for his milk which is sold as fluid milk. At this rate the gain in production of these five daughters of almost 20,000 lbs. brought a return of about $600 in excess of their dams or an average of $120 per cow for one year.

In addition to greatly increasing the production and raising the butterfat test, there was also a very marked improvement in type and characteristics which are indicative of good dairy animals, as well as breed characteristics. As a matter of fact this bull was so prepotent that even when bred to common red cows, as was the case in two of the instances, his daughters gave every indication from color type, markings, and conformation of being pure-bred Holsteins. His daughters are also very uniform, especially considering the very uniformity of their dams. He has also given especially fine udders to all of his daughters. Of course, as so often is the case, he passed into the hands of the butcher long before his real worth was known.

In light of such instances as this it is hard to understand why so many farmers still persist in keeping scrub bulls. The 1920 census shows that we have in the United States about 752,371 males of which 187,299 or about 25 per cent of them are pure-breds. The Virginia census showed that there were 8,207 dairy bulls in use, of which 2,251 or only about 27 per cent of them being pure-breds. Why not butcher the grade or scrub bull and replace with good pure-bred?—L. P. EMERICK.

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VETERINARY

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A Word on Fistula

The term "fistula" means an abnormal pipe, sinus, or tube-like canal or duct discharging pus or some other secretion. The most familiar fistula is that of the withers in the horse and that is usually caused by bruising. "Poll evil", of the horse, is of similar nature.

Some owners may also have seen a fistula of the large salivary duct that crosses the lower jaw of the horse and is known as Steno's duct. That discharges saliva and is a good illustration of a fistula of a secreting gland. To the owner of dairy cows fistula of the teat wall is the most common condition of the kind in question. Through it milk leaks or runs at milking time or before milking is done. That, too, is a fistula of a secreting gland or its duct and fistula of the mammary secreting gland, or udder, is also occasionally met with. In at least one case that came to our notice there was a fistulous opening connecting the front and rear quarters of one side of a cow's udder. One teat was "blind". The other emptied the blind quarter.

There are two other kinds of fistula to which we wish to draw attention at this time. The first of these is that which habitually discharges pus and fails to dry up and heal despite injection of caustics and astringent disinfectants. Fistula of that nature may occur at any point on the body. The most commonly met with are located at the point of the hip, the pin bone of the rump, the muscular part of the shoulder, and the upper flank on the left side of the body or on the leg, below the knee or hock. A less common fistula is that between the rectum and vagina, or connecting with the rectum from an outside orifice.

When pus constantly oozes or discharges from a fistulous sinus or tract, some irritative cause usually is present. Often we find that a foreign body keeps up the flow of pus. It may be a sliver, snag, bit of broken bone, diseased bone, hair, dirt, grit, or dead or diseased cartilage. Beards of barley or foxtail or the sharp needles of needle grass, or spiral ones of alfileria may also give rise to formation and discharge of pus. A diseased or split molar tooth may also have a fistulous pipe running out of the jaw and discharging pus.

In view of these facts the first step in attempting remedial treatment of a fistula should be to probe for the cause. In a long-standing case of fistula of a teat wall we found on probing that a milking tube had been "lost" in the teat, had crumpled up and become corroded. Had it been promptly discovered and removed, a fistulous tract would not have formed. Probing of fistula of the face, jaws, point of the hip, or ischium, of the rump, often discloses the presence of diseased bone. The offending body, whatever it may be, must at once be removed by enlargement of the opening, scraping, elevation of bone or use of forceps, as the condition may require. Healing should then proceed rapidly, provided the wound is well disinfected and then kept clean, with free drainage for pus or other fluid. A fistula of the upper left flank sometimes follows tapping with a dirty trocar and canula or a knife-blade to relieve bloat. To prevent that the seat of the operation and the instruments should be sterilized at the time of operation. The trocar should also be returned to the canula and both slowly pulled out together, when the gas has escaped, to avoid feed being deposited in the wound by capillary action of the tube.

Hard Milker

I have a cow that gives a big flow of milk but milks very hard. I am writing you to see if you have any remedy for such cows.
Taylorville, Ill. H. S.

The exact cause of hard milking has to be determined by examination that appropriate treatment may be prescribed or applied. If all of the teats are equally affected, the ducts being abnormally small, dilators persistently used may improve the condition. If but one teat is affected, growths or a stricture may be the cause. When just inside the opening growths may be removed by operation but when located higher in the teat it is best to let a calf nurse or to dry off the secretion in that quarter. When a stricture does not respond satisfactorily to use of a dilator or teat plug, it may be slit down through in four different directions with a teat bistoury. Instruments used must be carefully sterilized before insertion. Better have a veterinarian decide what treatment is necessary in this particular case.

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is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.

POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

Jersey Bull Calves
We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

The Difference

Mother was very careful indeed about the upbringing of her little son, Tommy. Particularly careful was she to make him say grace before each meal.

Recently in a restaurant, after the waitress had served the tea, mother said to Tommy:

"Now, say grace, please, Tommy."

Tommy looked up in surprise.

"But, mamma," objected the small boy, "we're paying for this, aren't we?"—The Progressive Grocer.

GUERNSEYS

never go begging for a home. Surplus stock sells at a good profit. The investment yields pleasing returns. Watch the sales.

Ask for
"The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
Box H. D. 125, PETERBORO, N. H.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

HILLBROOK FARM GUERNSEYS

Herd Sire—

LANGWATER HORATIUS, 63071, a son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested.

CHAGRIN FALLS, OHIO
For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

We Offer For Sale Young Bulls, Cows and Heifers

I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.

W. R. DUNLOP, ELBRIDGE, NEW YORK

SARNIA FARM

Cherub Guernseys

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

CHAS. L. HILL & SON
Rosendale Wisconsin

Serviceable Bull From A. R. Dam---Price $150

GLENN OF CHIPPEWA is 15 months old, a deep bodied, straigth backed fellow, ready for heavy service. His sire is a son of Dairymaid's Glenwood of Pinehurst and from a dam with 76,288 lbs. fat in Class A. His dam is an A. R. granddaughter of King Masher 5th. We consider this fellow a bargain at the PRICE, $150. He is guaranteed to be right. Write for pedigree, etc.

L. P. MARTINY, Chippewa Falls, Wis.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

—Registered— Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address

O. G. CLARK & CO., WEST SALEM, WIS.

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.

RICHARD F. KLEMM, Baraboo, Wisconsin.

Thorn Hill Farm Guernseys



Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

AUGUST ZIESING, Deerfield, Illinois

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

The Old Reliable La Crosse County Guernsey Breeders' Association will sell

175 Registered and High Grade GUERNSEYS WEDNESDAY, NOV. 26

THE DAY BEFORE THANKSGIVING

AT

West Salem, La Crosse County, Wis.

75 Registered Guernsey cows, heifers, and bulls. The choice of La Crosse and adjoining counties. A. R. cows with records of 500 and 600 pounds of fat as well as their sons and daughters.

100 High Grade Springing Guernsey cows and heifers. Young, big and good. All from Federal Accredited Herds or just tested. Send for catalog sale list and full particulars. A postal card will do it.

H. W. GRISWOLD, Sale Manager West Salem, Wisconsin

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

EL JANE GUERNSEYS ARCADIA, MISSOURI

(85 miles south of St. Louis)

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.

Federal Accredited EL JANE FARMS, - Arcadia, Missouri

2 SONS OF LADYSMITH CHERUB

The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

This Blood Sells Fast!

Our bull calves are either sons of Anton's King Confidence or out of his daughters. They sell so rapidly that only in rare instances are we able to keep them until they are old enough for service. If you want a bull possessing this blood to head your herd, buy a calf six months' old, raise it yourself and save money. A. K. C. has gained a reputation for siring mighty good udders along with the other desirable characteristics. A bull of our breeding will make money for you and improve your herd.

Hoard's Dairyman Farm
FORT ATKINSON WISCONSIN



ANTON KING CONFIDENCE 43517

Ladysmith's Cherub and Gerar Pearl

We are line breeding to these two great individuals by using our herd sire CHERUB'S DART (out of PEARL'S DOT) on the seven head purchased at Mr. Stout's Sale.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

KEEP TAB ON YOUR COWS

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets.
Hoard's Dairyman, Fort Atkinson, Wisc.

Lake Mills Holstein Sale

Lake Mills, Wis., Nov. 20th

Do you want good Holsteins? If you want clean, healthy cattle, good producers of the right type, and at your own price, be at Lake Mills Nov. 20. You won't be disappointed. Catalogs are now ready.

F. H. EVERSON, Manager **Lake Mills, Wisconsin**

WATERTOWN, WIS.

Sale of Registered

HOLSTEINS

Wednesday, Nov. 19

85 HEAD of selected fresh and springing COWS. Some bred heifers and 15 splendid yearling BULLS. Our females come from the very best herds in this renowned Holstein community. Our bulls are an outstanding lot. Ormsby and Homestead breeding. Consigned by establishments such as E. N. Murphy Farms, Carnation, Pabst Stock Farms, and James McKone, Green Bay. Don't miss this sale for bulls and choice females. All cattle T. B. tested and sold on a re-test.

— Write for Catalogs to —

F. DARCEY, Sec., Watertown, Wisconsin

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.

If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Dousman, Wis.
A clean herd under state and federal supervision

Oak Hill Stock Farm DISPERSAL SALE

MONDAY, NOV. 26th, 1924

At 10:30 A. M. Sharp

Crown Point, Ind., R. 3, or Gary, Ind., R. A

Farm is direct south of Gary

Some of the head liners are: The State Champion Sr. yearling; the State Champion Jr. 2-yr.-old; two daughters of the State Champion Sr. two-yr.-old; a son, grandson and a granddaughter of the State Champion 3-yr.-old; the State Champion four-yr.-old; two sons and one daughter of the State Champion cow. The only three times 900-lb. cow in Indiana; a 29-lb. cow bred to a son of the State Champion.

BULLS

Two 1000-lb. bulls; a 29-lb. bull; one from Lake Countes, first 21-lb. 2-yr.-old. A seven-month-old bull, we believe the greatest bull in the U. S. Don't miss this sale.

Oak Hill Stock Farm

When writing advertisers please mention Hoard's Dairyman.

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,

D. G. Twentyman, Manager **Rochester, Minnesota**

Washington Co. Holstein Ass'n

CONSIGNMENT SALE!

Sale Pavilion, Fair Grounds

WEST BEND, WIS., NOV. 26th

50 REGISTERED HOLSTEINS
25 REGISTERED SPRINGERS and MILKERS
15 REGISTERED OPEN HEIFERS
10 REGISTERED BULLS, Serviceable age
25 GRADES, with good C. T. A. records

All animals T. B. tested, and most are from accredited herds.

R. E. Haeger, Auctioneer

For catalogue write

PAUL A. HORLAMUS, Secretary

Ollie-Ormsby

BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.

WALCOWIS FARMS **Lake Geneva, Wis.**

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. **Warren, Minn.**

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*

Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".

Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.

Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.

A. J. LASHBROOK - - - Northfield, Minnesota



Sir Walker Segis Homestead

Select Your Foundation Females in Northfield Community

WHERE MANY OF THE GREAT HOLSTEINS OF THE BREED, OR THEIR IMMEDIATE ANCESTORS, WERE BRED

Send for the new community circular just out, or better still, come and select those *you like* whether grades or pure-breds. We have them at reasonable prices.

CARLETON COLLEGE FARMS **NORTHFIELD, MINNESOTA**

FEDERAL ACCREDITED HERD

THE SHOW HERD "that brought home the bacon"

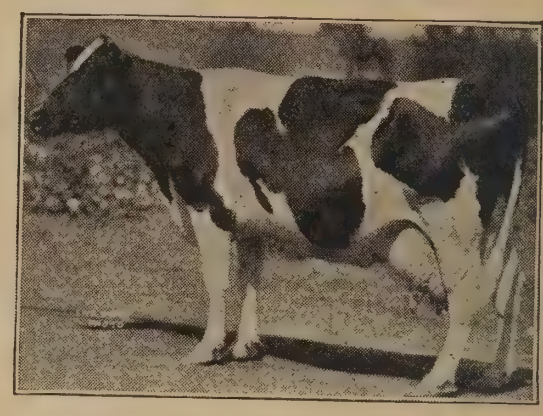
To be DISPERSED at the

Monclova Stock Farms

Monclova, Ohio 13 mi. from Toledo FRIDAY, 10 A. M. November 21

OVER 60 HEAD PUREBRED HOLSTEINS

This Blue Ribbon Winner to be Sold



IVALOY PRILLY ROSE HALL NO. 535677
Grand Champion, Ohio State Fair, 1922, 1923

Also 1st prize aged cow Ohio State Fair, 1924. Attend this real high class sale. Herd under State and Federal Supervision. Write R. E. ANSTED, TOLEDO, O., for Catalogs.

R. E. HAEGER, AUCTIONEER S. T. WOOD, IN THE BOX

Persons arriving at Toledo via railroad trains, please phone my office, Adams 283. Bus accommodations to Farms from 9 No. Huron St.

Barron County Holstein Breeders' Annual Fall Consignment Sale!

100 Head of Carefully Selected Grades and Pure Breds - 100

BARRON, WISCONSIN, SALE STARTS AT 10 A. M. NOVEMBER 20th

35 pure-bred females, the real foundation kind, including several with creditable A. R. O. records and good C. T. A. records, the majority of the cows are due to freshen near the date of sale, some open and bred heifers.

20 bulls, all but a few ready for immediate service, several exceptionally good, typy bulls with 7-day and yearly record dams.

45 head of high grade cows and heifers, selected from Barron County's 10 Cow Testing Associations. The cows all have yearly C. T. A. records of 275 lbs. fat or over for the year. The heifers are from dams with the above requirements, carefully selected for type and production, the class of Dairy cattle you seldom have an opportunity to buy at your own price.

Barron County has had two complete Area Tests and is considered T. B. Free. It has 663 of Wisconsin's 2,824 Accredited Herds, all animals except those from Accredited Herds shall be tested not more than 30 days prior to the date of sale, and sold subject to a 60-day retest under the usual rules governing such retest privilege. A safe place to buy.

Terms:—Cash unless other arrangements are made with the consignor.

Selling Force:—W. H. Krause, B. D. Scott, F. H. Hemmbrook.

For Catalogs write: **ERNEST LE JEUNE,** **Rice Lake, Wisconsin**

SPRINGERS HOLSTEIN SPRINGERS

NOVEMBER 21 SALE 10 A. M. MANITOWOC, WIS.

Offering 50 females, mostly springing heifers and young cows. A fine lot of Show granddaughters of 37th. Real Blue Ribbon winners.

A show cow with a 19-lb. 2-year record. 10 good A. R. O. bulls. No calves. All T. B. tested.

Mack and Everson - Sale at Fair Grounds

CHAS. HAMPKE, Manager **Manitowoc, Wisconsin**



A Show Son of Creator -- from a yearly record dam

This one was born Jan. 5, '24. He is a remarkably good individual fit to head any herd.

His dam, Canary Spofford Empress 3D, has a 24.6-lb. 7-day record and produced 800 lbs. butter from 18,801.7 lbs. milk in a year. She is an excellent individual and a sister to the first 1200-lb. senior 3-year-old.

This bull is guaranteed to be right in every way. Write us today for further information. Price $400.

PABST HOLSTEIN FARMS **Oconomowoc, Wisconsin**

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

JOHN H. PULS - - ALLENTON, WIS.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

GRANDSONS of SIR P. O. M. 37th

from dams with long time records up to 1024 lbs. butter in year. Federal Accredited Herd. Prices from $75 to $200.

B. A. NORRIS **Anoka, Minn.**

Choice Dairy Cattle

FOR SALE—200 head of the very best Holstein and Guernsey cows, heifers, 4 to 8 weeks old calves at reasonable prices. Write the

WHITEWATER STOCK FARM
Whitewater : : Wisconsin

Purebred and Grade Holsteins

We have a surplus of splendid, fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary **Watertown, Wis.**

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., **Reedsburg, Wis.**

Prepare baby's food according to the

Mellin's Food Method of Milk Modification



Virginia M. De Lorge, Pontiac, Michigan.



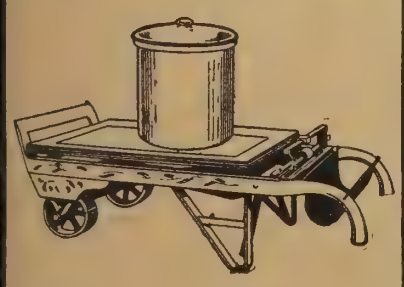
Robert L. Smith, Waterloo, Iowa.

Send for a copy of our book, "The Care and Feeding of Infants", also a Free Trial Bottle of Mellin's Food.

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177 State St., Boston, Mass.

Saved $5.00 A Month On Butter Alone
With My RENFREW Scales

"The RENFREW Truck Scales has saved me $5.00 every month I have used it on butter products alone. It surely is worth the price you ask for it. It's a bargain and if a farmer uses it a month, he will never part with it."
—Henry Van De Slunt



The RENFREW Portable
Weighs Anything from a Pound to a Ton

The RENFREW is a portable weighing machine, as easily handled as a wheelbarrow which weighs anything from a pound to a ton, with absolute accuracy. You can weigh a steer, or a hen—a pound of butter, or a horse—a sack of oats, or a load of loose hay. Instead of carrying the things to the scales, you wheel the scales to them. That's why the RENFREW has proved such a popular money-maker and money-saver for thousands of farmers, as well as a time and labor saver.

Only $7.50 After 30 Days' FREE TRIAL

You don't have to send us a cent until you have used the RENFREW as your own for 30 days. If you decide that you want to keep it you send us only $7.50 and pay the balance in small monthly payments.

Write Today for Free Catalog

Our new catalog—just off the press—tells about this wonderful scales. It is FREE. Ask for it TODAY!

Babson Bros. Dept. 28-58
19th St. & Marshall Blvd., Chicago, Ill.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

and in a week they were gone for good. That is more than six months ago which is long enough to prove that the doctor knew what he was talking about. You may be able to have primroses in your house with perfect safety as it is only certain types of skin that they affect. Even if your skin is sensitive to them they will probably not do you any harm unless you handle them with bare hands. If you are bound to have them, rubber gloves will probably make them harmless.—LUCY THOMPSON.

Cottage Cheese With Pineapple

"Oh, yes, I like cottage cheese," is what almost anyone will say on being asked but they don't honestly mean it. They only mean that they do not really dislike it.

It is such an easy food to have and so very valuable from a health standpoint that it is worth while having now and then anyway even if people do not exactly shout when they see it. It can be dressed up in certain ways that make it really delicious though it would not do to serve it every day.

Someone told me about using it with pineapple and we liked it better than usual. Take grated pineapple and mix it with the cheese instead of putting in cream. It will want a little salt, too. The juice that clings to the pineapple will provide all the softening necessary. That is best served as a salad on lettuce leaves with a dressing that is slightly sweetened.—LUCY THOMPSON.

A Handy Wife

Jack: Can you cook and sew and sweep and keep house?

Mary (expectantly): Yes, indeed!

"Well, when we're married you oughtn't to have any trouble finding a job!"—*The Progressive Grocer.*

For Christmas Gifts You Could Make



Every man gets plenty of ties for Xmas, but the fact that he needs a shirt more than a tie seems always to be overlooked.



Cuddly rag toys are easy and inexpensive to make. Small children are crazy about them.



A pretty pillow is a gift that every woman would be greatly pleased to receive. These are easy and cost little to make.

These gifts are not at all hard to make, and in addition to being less expensive, there is greater sentimental value attached to a home-made gift. In our Fall and Winter Fashion Magazine, the above gifts, in addition to others, are shown; also about 300 styles of dresses, aprons, coats, children's clothes, etc., and, of course, patterns are obtainable of all. This book is offered to readers in order that they may have an opportunity to choose from a large variety of styles and save money in making the clothes and gifts. To obtain one of these books, just send 10 cents, in stamps or coin, to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis.



Save the Surface of Your Teeth

It pays to save the enamel of your teeth just as it pays to save the surface of farm buildings and machinery. Tooth enamel protects the surface of the tooth. It is the one substance that nature can't replace.

Dentists recommend a dentifrice which "washes" the teeth. They tell you to avoid using one which contains harsh grit.

Colgate's Ribbon Dental Cream "saves the surface" of your teeth. *It removes causes of tooth decay.* It is a safe, common sense dentifrice. More dentists recommend Colgate's than any other dentifrice.

Large tube, 25c—at your favorite store

COLGATE & CO.
Established 1806



Colgate's Cashmere Bouquet Soap—25c



Colgate's Talc—25c



Colgate's "Handy Grip" Shaving Stick—35c



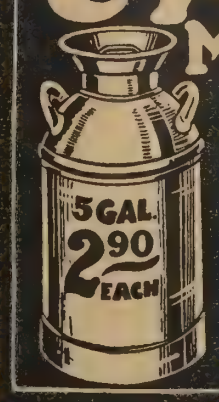
Colgate's Rapid-Shave Cream—35c

Farm Folks know the Name "Colgate" on Toilet Articles corresponds to "Sterling" on Silver



Truth in advertising implies honesty in manufacture.

CP XTRA STRONG MILK and CREAM CANS



An Excellent Can at an Attractive Price

Built of only the very best material with reinforced breast, neck and bottom. Bacteria-proof as all joints are filled with solder to facilitate rapid and effective cleaning.

We can make immediate shipments of from one can to a carload.

SIZES, WEIGHTS AND PRICES

Size	Shipping Weight	Net Price Each
5 gal.	13 lbs.	$2.90
8 gal.	17 lbs.	3.45
10 gal.	18 lbs.	3.55

Above prices f. o. b. Chicago

FREE Big Milk Dealer and Dairymen's Catalogue

THE CREAMERY PACKAGE MFG. COMPANY,
68 W. Kinzie Street, Chicago.

DAIRY MARKET NEWS

Cheese Market

(Report by U. S. Dept. of Agr.)

Primary cheese markets developed a firmer trend during the week, responding to the influence of somewhat lighter receipts at country markets. Firmer tone of butter markets also appeared of some support. Wholesale distributing markets remained generally quiet.

The average wholesale prices on American cheese, style Twins, for the week ending Nov. 1, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Nov. 1 1924	Oct. 25 1924	Nov. 1 1923
	Cts.	Cts.	Cts.
New York	20.0	20.0	25.0
Chicago	18.1	18.1	23.4
Boston	21.3	21.0	26.5
San Francisco	19.2	19.2	26.4
Wisconsin Boards	17.8	17.6	23.0

The receipts of cheese at these markets were 4,000,295 lbs. for the week as compared with 4,058,158 lbs. last week and 4,790,488 lbs. a year ago.

Butter Market

(Report by U. S. Dept. of Agr.)

Lighter supplies and better demand lent strength to butter markets during the week ending November 1. Production showed some decrease. Storage butter is still moving slowly. Exports continue on small scale.

The average wholesale prices on 92-score butter for the week ending Nov. 1, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Nov. 1 1924	Oct. 25 1924	Nov. 1 1923
	Cts.	Cts.	Cts.
New York	40.0	37.7	50.1
Chicago	38.0	36.7	50.0
Philadelphia	40.2	38.2	50.8
Boston	39.0	37.5	50.0
San Francisco	36.5	36.5	47.2

The receipts of butter at these markets were 9,882,877 lbs. for the week as compared with 10,202,378 lbs. for last week and 9,872,930 lbs. a year ago.

November Non-pool Prices

On Monday, October 27th, at a meeting of the New York Milk Conference Board and the Executive Committee of the Non-pooling Dairymen's Co-operative Association, Inc., held in New York City, the following schedule of prices was set for the month of November, 1924:

Class 1. All milk for city consumption $2.80 per 100 lbs. in the 201—210-mile zone, subject to published freight differentials and an addition of 4c per point of butterfat above 3%.

Class 2. All milk used for cream, plain condensed, and ice cream, $2.00 per 100 lbs. in the 201—210-mile zone, subject to freight differentials up and down of 1c per each 25 miles and an addition of 4c per point of butterfat above 3%.

Class 3A. All milk used for sterilized evaporated whole milk, sweetened condensed whole milk, whole milk powder, and milk chocolate in the 201—210-mile zone subject to freight differentials of 1c per each 50 miles and an addition of 4c per point of butterfat above 3%, price $1.60 per 100 lbs.

Class 4A. Prices for surplus milk made into butter shall be determined by the official New York City average outside quotation for 92-score butter.—Non-pooling Dairymen's Ass'n.

Wisconsin September Butter

(Wisconsin Department of Markets)

The following is an average report of the operations of 134 co-operative creameries in Wisconsin for the month of September, 1924:

No. of creameries	Price paid for fat	Ave. price rec'd for butter	Ave. overrun	Ave. fat rec'd
	Cts.	Cts.	%	Lbs.
1	45	40.5	24.0	10,756
2	44	38.5	24.7	45,074
16	43	37.2	24.6	27,627
25	42	36.6	24.0	43,004
33	41	34.7	23.3	28,326
27	40	36.2	22.1	28,850
14	39	35.8	22.9	20,542
7	38	35.8	21.3	12,619
4	37	34.7	23.3	10,623
3	36	35.0	21.7	9,947
1	35	35.5	20.4	5,220
1	27	26.0	21.5	5,265
134				20,652

Butter Prices for October

The following table is compiled from daily quotations by the U. S. Department of Agriculture and covers the average wholesale prices during October on 92-score butter (extras) at four of the principal markets, together with the receipts and storage holdings at these markets:

	Ave. price Oct. 1924	Oct. 1923	Receipts Oct. 1924	Oct. 1923
	Cts.	Cts.	Tubs	Tubs
Chicago	37.5	46.8	229,957	202,253
New York	38.7	47.6	275,581	230,291
Boston	38.4	47.7	73,395	75,581
Philadelphia	39.4	48.5	72,906	69,948
Total receipts for October			651,837	578,073
Total receipts since Jan. 1			8,144,292	7,434,615
Storage holdings			1,208,052	612,122

Ninety-score butter averaged 35 cents for October in Chicago, with centralized butter at this market selling for 34.8 cents. Jobbers' prices on extras sold to retailers averaged 39.8 cents in Chicago and 42.2 cents in New York.

League's November Milk Prices

The producers' November price for Class 1 milk for city distribution is $3.07 per 100 pounds (3 per cent butterfat) at the 201—210-mile freight zone. This is an increase of 1 cent per quart over the October price. The schedule of prices for November milk in the remaining classes follows: Class 2-A (milk for cream) $1.90, plus skimmilk value; Class 2-B (plain condensed and ice cream) $2.05; Class 2-C (soft cheeses) $2.05; Class 3-A (evaporated, sweetened condensed) $1.60; Class 3-B (milk powder and hard cheeses, other than American) $1.55; Class 4-A (butter) and Class 4-B (American cheese) determined by average wholesale price during November of butter and cheese respectively. —Dairymen's League.

October Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 111 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributor's plant:

Table I—October Producers' Prices by Geographic Sections

Sections	Range of prices per cwt.	Comparisons of average prices 1924 Sept.	1924 Sept.	1923 Oct.
New England	$3.06—3.87	$3.51	$3.41	$3.48
Middle Atlantic	2.20—2.87	2.58	2.58	3.00
E. North Central	1.50—3.13	2.41	2.47	2.64
W. North Central	1.62—2.60	2.06	2.06	2.36
South Atlantic	2.38—4.94	3.41	3.38	3.46
E. South Central	1.98—3.17	2.71	2.48	2.51
W. South Central	2.45—3.72	3.06	2.87	3.14
Mountain	1.49—3.20	2.43	2.36	2.36
Pacific	1.55—3.65	2.58	2.75	2.81
United States	1.49—4.94	2.66	2.65	2.80

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers:

Table II—October Producers' Prices F. O. B. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		Cents
Birmingham, Ala.		18
Phoenix, Ariz.		11—12½
San Diego, Calif.	$3.00	13
San Francisco, Calif.	3.21	14
Denver, Colo.	1.92	12
New Haven, Conn.	4.22*	16
Washington, D. C.	3.20*	14
Jacksonville, Fla.	3.84	17—20
Atlanta, Ga.	2.98	
Chicago, Illinois		10
Indianapolis, Ind.	1.75—192	10—12
Des Moines, Iowa	2.80*—2.85*	13
Topeka, Kansas	1.90	10—14
New Orleans, La.	3.04*	14
Louisville, Ky.	2.15—2.29	12
Baltimore, Md.	3.31*	13
Boston, Mass.	3.88*	14
Detroit, Mich.	3.00	13—14
St. Paul, Minn.	2.50	11
St. Louis, Mo.	2.60	13
Butte, Mont.	2.56	13
Lincoln, Nebr.	1.97	10
Trenton, N. J.	3.06*—3.17*	12
New York, N. Y.		14
Cleveland, Ohio	3.20*—3.30*	13—14
Tulsa, Okla.	2.45	15—20
Portland, Ore.	1.85	11
Philadelphia, Pa.	3.14*—3.17*	12
Pittsburgh, Penn.	3.50*	14
Providence, R. I.	3.88	14½
Sioux Falls, So. Dak.	2.00	12
Memphis, Tenn.	2.58*—2.80*	15
Salt Lake City, Utah	2.44	11
Richmond, Va.	3.81*—4.05*	14
Seattle, Wash.	1.75—1.80	9
Spokane, Wash.	2.61	12
Milwaukee, Wis.	2.10*—2.45*	10—11

* Basic Prices for Fluid Milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at producers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III—October Prices at Country Stations

	At country station	Freight zones to which country station prices apply
Bridgeport, Conn.	$3.17*	58c rate
New Haven, Conn.	3.70*	28c rate
Washington, D. C.	2.38*	35c rate
Chicago, Ill.	2.40	All
Kansas City, Kansas	2.07	21c
Baltimore, Md.	2.57*—2.73*	35c rate
Boston, Mass.	3.06*—3.14*	181-200 mile zone †
St. Louis, Mo.	2.00	24c rate
Trenton, N. J.	2.51	28-33c rate
Buffalo, N. Y.	2.57*—2.62*	28c rate
New York, N. Y.	2.80*	201-210 mile zone ‡
Cleveland, Ohio	2.90*	All
Pittsburgh, Pa.	2.65*	All
Philadelphia, Pa.	2.57*—2.60*	51-60 mile zone
Scranton, Pa.	2.50	30c rate
Dallas, Texas	2.00*—2.40*	All

* Basic Prices for Fluid Milk † 46.5 rate ‡ 53c rate

Table IV gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat:

Table IV—October Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	Light cream† per ½pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Albany	16—17	26	10	10	17—20
Boston	18	25	10		
Baltimore	18	30	13	15*	16—20
Buffalo	14	26—27	10—12	10	22
Chicago	23	25	20	15*	16
Cleveland	18—25	30	8—12	15	15—20
Denver	14		8	15*	12½
Des Moines	15—25		5—10	14	13—15
Detroit	22—25	25	10		16
Hartford	17—22	22—35	10		18
Indianapolis	16		9—10	20	11—13
Kansas City	15	25	10	15*	10—18
Lincoln	13	20	10	15*	10
Louisville	16	24	9—12	20	16
Miami	30	30	15—20	30	25—40
Milwaukee	13—18	25	6	9—10	12—14
Minneapolis		20—22	12—13	12*	13½-15
New Orleans	18	30	13	15*	17
New York	32	28	11		29
Philadelphia	14—15	30	8—12		15
Portland		20	11	15	14—15
Richmond	16—18		8		14
Salt Lake City	15		7	15	13
San Francisco		25			18
Seattle		20	20	15	14—15
Spokane	18		20	15	14—15
St. Louis	18	25	10	15	17
Trenton	16	30	12		18—14
Washington	16—21	30	14—15	15*	15—18

* 12 oz. Package † 18—25% Fat.

October Condensed Milk

(New York Dairymen's League)

The monthly summary of dairy prices and statistics issued by the Research Department of the New York Dairymen's League Co-operative Association contains the following table of prices paid per hundred pounds for 3.5 per cent milk by condenseries located in various sections of the United States:

Territory	1924 October	1923 October	1924 September
Oregon	$1.60	$2.10	$1.60
Dixon	1.57	2.10	1.53
Sterling	1.57	1.57	1.57
Morrison	1.65	2.01	*1.60—‡1.65
Greenville	1.85	2.25	1.70
Effingham	2.00	2.15	2.05
Iowa			
Waverly	1.65	2.10	1.65
Kansas			
Mulvane	1.60	2.25	1.60
Michigan			
Sandusky	1.57	2.10	1.53
Howell	1.57	2.10	1.53
Mt. Pleasant	1.57	2.10	1.53
Sparta	1.57	2.10	*1.53—‡1.57
Charlotte	1.75	2.25	1.75
Perrinton	1.53	2.10	1.53
Sheridan	1.53	2.25	1.53
Cass City	d	2.15	1.50
Ubly	d	2.15	1.50
Lake Odessa	d	2.15	1.50
Wayland	1.60	2.10	1.60
Hudson	1.60	2.10	1.60
Belleville	1.60	2.20	1.60
Coopersville	1.60	2.10	1.80
Ohio			
Marysville	1.55	2.20	1.55
Lodi	b	2.18	1.68
Delta	1.60	2.10	1.60
Minerva	1.65	2.10	1.60
Orrville	2.30	2.80	2.80
Wisconsin			
Monroe	1.57	2.10	1.53
New London	1.57	2.10	1.53
Berlin	1.53	2.10	*1.49—‡1.53
Richland Ctr.	1.53	2.10	*1.49—‡1.53
Chilton	1.57	2.10	*1.49—‡1.53
Oconomowoc	1.60	2.25	*1.55—‡1.60
Jefferson	1.60	2.25	*1.55—‡1.60
Sullivan	1.60	2.25	*1.55—‡1.60
Juneau	1.70	2.30	*1.60—‡1.70
Waupun	1.65	2.10	*1.60—‡1.65
Whitewater	1.65	2.25	*1.60—‡1.65
Reedsburg	b	2.18	1.68
Delavan	1.60	2.25	1.60
Burlington	1.60	2.25	1.60
Valders	c	2.32	1.84
New Glarus	1.60	2.20	1.60
Walworth	1.70	2.60	1.80
No. Prairie	*1.60	2.25	1.60
Footville	1.60	2.20	1.60
Albany	1.50	2.25	1.60
Denmark	*1.66	2.31	1.66
Elkhorn	1.65	2.30	1.65
Pennsylvania			
Mill Hall	1.64	2.24	1.64
Spring Mills	1.64	2.24	1.64
Indiana			
Goshen	1.78	2.13	1.95
Sheridan	1.49	2.01	1.57
Lebanon	1.49	2.01	1.57

*—First half. ‡—Second half.

b—Ave. 92-score Chicago butter plus 40c.

d—Ave. 92-score Chicago butter plus 30c.

c—10 times Longhorn cheese quotation plus ten cents.

FOND DU LAC, Wis., Nov. 7—Average cheese prices (majority of sales), f. o. b. shipping point: Twins, 18¼c; single Daisies, 19¼c; double Daisies, 19c; Longhorns, 19c; square prints, 21c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Nov. 8: Single Daisies, 18¼c. On Farmers' Call Board, Nov. 7: Single Daisies, 17¾c; Longhorns, 17¾c; square prints, 19¼c.

NEW YORK, Nov. 10—Butter—Steady; receipts, 4,348 tubs; fresh supply, 63,214 tubs; creamery extras, 40c; specials, 40½@41c.

Eggs—Quiet; receipts, 4,722 cases; fresh supply, 85,696 cases; white, fancy, 81@84c; fresh firsts, 44@59c; western whites, 37@80c.

MILWAUKEE, Nov. 10—Creamery, extra tubs, 38½c; standards, 37c; extra firsts, 35@36c; firsts, 31@32c; seconds, 30@32c.

Eggs—Fresh gathered, firsts (new cases), including cases, candled, 48@49c; miscellaneous lots, shippers' cases returned, candled, 44@46c; seconds, dirties, 29@30c; checks, 20@28c.

Cheese—American full cream, Twins, 18@18½c; Young Americans, 18½@19c; Longhorns, 19@19½c; Daisies, single, 19@19½c; squares, 19½@20c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

CHICAGO, Nov. 10—With a fair amount of trading reported, especially on the medium and lower scores, the butter market today ruled steady. Stocks of butter on the streets were not large, and dealers in some quarters found it possible to obtain slight premiums on full 89- and 90-score lots. The centralized car was steady, with trading quiet. Ninety-score centralized storage cars moving at a wide range of prices from 33½ to 35 cents. Fresh butter—92-score, 38½c; 91-score, 36c; 90-score, 34c; 89-score, 33c; 88-score, 30c; 86-score, 28c. Centralized carlots—90-score, 37c; 89-score, 33c; 88-score, 30½c.

Uncle Ab says the man who can do the most generally gets farthest.

Carload Prices of Hay, Straw, and Feed, Nov. 1, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26.50	27.00	.....	21.00	21.25	26.00	24.00	24.00	19.00	24.00	17.00	24.00	....	17.00	
No. 1 Clover, mixed	20.00	.....	.....	19.00	17.50	.....	.....	.....	16 50	.....	15.50	..	..	15.50	.....
No 1 Clover	.....	.....	.....	19.00	.....	.....	.....	.....	19.00	17.00	....	20.50	.....	16.50	.....
No. 1 Alfalfa	.....	30 50	.....	.....		34 50	30.00	28 00	27.00	24.00	23.00	....	17.00	20 00	27.00
Standard Alfalfa	.....	25.50		.....		30.00	28.00	26.50	.....	18.00	19.00	23.50	15.50	18.00	26.00
No. 2 Alfalfa	.....	23 50	.....	.....	.....	.....	25.00	23.00	24.00	15.00	16 00	19.50	13 50	14.00	25.00
Oat Straw	13.00	15.50	14.00	12.50	13.50	.....	.....	.....	10.00	9.00	7.00	.....	7.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	31 00	.....	30 50	30.00	31.50	33.00	.....	.....	29.00	26.00	23.75	.....	.....	.....	.....
Soft Winter	33.50	.....	33 00	31 50	35 00	.....	.....	27 00	29 50	.....	.....	25.50	.....	23 00	37.00
Hard Winter	.....	.....	32 00	30.50	...	33.00	.....	26 50	29.00	.....		25.25	23.00	23 00	.....
WheatMiddlings	.....	.....							.....	.....	.....	.....	.....	.....	.....
Spring (Standard)	33.25	....	32 50	32 50	33.50	..	.....	.....	33 00	29.00	26.50	.....	.....	.....	.....
Soft Winter	40.25	.....	40 00	37 00	35.00	42 00			36.50	.....	.....	.....	.....	30 50	45.00
Hard Winter	.....	.....	.....	38.50	.....	38.00	.....	.....	36.50	.....	.....	31.50	30.00	30.50	.....
Wheat Millrun	.....	.....	.....	.....	.....	37 50	.....	.....	.....	.....	28 00	.....	.....	26.00	36.00
Rye Middlings	.....	.....	.....	...	32 00	.....	.....	.....	.....	.....	25 50	.....	.....	.....	.....
High Protein Meals	...														
Linseed	50 50	.....	49 25	48 00	49.00	.....	.....	.....	47.50	45 60	43.50	46.00	48.00	49.00	48.00
Cottonseed (41%)	47.75	.....	47.00	45 25	.....	.....	.....	39 00	43 00	44 00	45.00	89 00	.....	.....	.....
Cottonseed (36%)	45.00	.....	44.50	42.75	44.00	37.50	.....	36 00	41.00	42 00	41 50	36 50	.....	.....	.....
Tankage (60%)	....		....	.....	.....	.....	.....	.....	.....	60 00	60.00	60 00	60.00	60.00	.....
No.1 Alfalfa Meal	.....	.....	.....	.....	33 00	.....	.....	28 50	29.00	26.50	.....	25 00	26.50	21.50	30.00
Gluten feed	45 95	.....	44 90	42.70	44 50	.....	.....	.....	41.70	38 80	42.00	.....	.....	.....	.....
Hominy feed (white)	43 00	.....	41 75	....	41 50	45 00	.....	.....	40 00	38 00	...	36.50	35 00	.....	.....
Hominy feed (y'llow)	43 00	.....	41.50	.....	41.25	45 00	.....	.....	40 00	37 00	36 00	....	35 00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	.....	40 00	.....	.....	.....	50.00
Dried Beet pulp	.....	.....	.....	38 00	38.00	.....	.....	.....	.....	.....	32.00	.....	.....	.....	37.00

Putting Up With the Dairy Cow

(Continued from page 538)

that he believed they could do as much work in five days as they had been doing in five and a half. At any rate he said they were to go home Friday evening and stay there till Monday morning. If the work didn't suffer they would be paid for five days' work and given a Saturday vacation without pay.

Evidently Henry Ford has no qualms of conscience about having his immense offices idle for one-sixth of the time, if that is the profitable thing to do.

We hear about factories being operated at a loss. Usually that means that the business is returning no dividends on capital. It is reasonably certain, however, that operating expenses are being met or the factory shuts down in short order or goes on part time production.

Praise be! The farmers still want to do an honest day's work for a fair return. Perhaps their example will influence some city laborers to do likewise. However, with a dozen jobs demanding attention at the same time, the dairy farmer can spend his time more profitably than sitting under boarder cows twice a day and cussing his luck once a month because the feed bill equals the milk check.

Friendly Talks For Farm Folks

Aunt Mary Martin makes a bang-up salad out of everything, she says, but the kitchen stove. Even Solomon Pease, the hired man, who is so everlastingly fussy about his eating, has to admit that Aunt Mary's salad is just about the kitten's cream, but even he can't get the mixer to tell what the ingredients are which makes it so awfully good. When hard pressed for her recipe, Aunt Mary protests, "Why, there ain't no receipe for that salad. Sometimes I put in a dash of cold ham with the vegetables left from yesterday's meals, and again I may use a few apples and a lick of this and a bit of that—but mark this—it always tastes good!"

⚜

Mrs. Durlan Butts happened out to the barn one day and there beheld her seven-year-old energetically scrubbing the old black cow's remaining teeth. When the youngster was pulled off the amazed milker and was asked what in the name of common sense was she doing, little Ruth yelled wrathfully, "Old Bos can't clean her teeth and everybu'dy should clean their teeth and Teacher says so and so I was fixing Old Bos' teeth so they wouldn't decay." Who says the proper health gymnastics aren't taught in the little red school house?

⚜

After all this autumn's political mud-slinging has ceased, may we expect the national flower of contentment to bloom thriftily therefrom for the next four years?

⚜

Elizur Fuller says he has heard somewhere that Opportunity never knocks but once, which is some different policy from that shown by unlucky folks who are forever knocking Opportunity.

⚜

If the predicted styles are going to advocate ears again on a woman's head, we know a few hundred of our sex who are going to have 'em bobbed, come what may. Pretty ears are simply born, not beauty-parlor made.

⚜

Ten green apples a day will keep the doctor away just an hour too long from the standpoint of the unfortunate kid who has ate 'em.

⚜

It's certainly true that one-half of the world doesn't know how the other half lives, as here in Brown's Corners one-half of the farmers who work hard for a living and daily scrimp and save, just can't understand how the other half of their neighbors who don't, can make a bare living these days and stick it out a while longer.

⚜

Al Whitney has a new roll-top desk which he says is the best one he ever owned. It's exactly right in height, says Al, for his feet to rest on without getting tired.

⚜

Annie Jewett has bobbed her hair and Bob Jewett is cultivating a beard. What in the world will there be left for little Nancy and Junior Jewett to do when they grow up, in order to assert their personalities?

⚜

In spite of the publicity in which Babe Ruth is surrounded year after year, we hope that no parents have become so over-enthusiastic as to name their latest male baby "Ruth".

⚜

Ma Morton refuses to buy a new kitchen cabinet until they contain a complete radio set with ear doo-dings which you can wear to interesting purpose while making pies and beating up biscuits.

New York. HELEN S. K. WILLCOX.

SALE ANNOUNCEMENTS

Nov. 15—Goodhue County Holstein Breeders' Annual Sale, Zumbrota, Minn. 60 Registered Holsteins.
Nov. 15—Holsteins. Sale of the Milking Herd of Registered Holsteins. Hollyhock No. 3, Dousman, Wis. W. L. Baird, Sales Mgr.
Nov. 17—Pure-bred bull sale, Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Secretary.
Nov. 17—Brown Swiss. Dahlem & Schmidt, El Dorado, Kansas.
Nov. 18—Holsteins. Bull Bros., Aberdeen, S. D.
Nov. 18—Holsteins. Annual Quality Sale. Waukesha County Holstein-Friesian Breeders' Ass'n. W. L. Baird, Sec'y., Waukesha, Wis.
Nov. 19-20—Guernseys. The Western Wisconsin Guernsey Cattle Breeders' Sales Ass'n., West Salem, Wisconsin.
Nov. 20—Holsteins. Cowdenside Herd Sale. R. N. Thompson, Cowden, Ill.
Nov. 20—Holsteins. Barron County, Wis. Annual Fall Sale Grades and Pure-breds, Barron, Wisconsin.
Nov. 21—Holsteins. Manitowoc Co. Holstein Breeders' Consignment Sale at Manitowoc, Wis. Chas. Hampke, Secretary.
Nov. 21—Holsteins. Monclova Stock Farms, Monclova, Ohio.
Nov. 21-22—Arden—Mineral Springs Fall Sale, St. Paul, Minn. 70 Registered and 100 Grade Holsteins.
Nov. 24-25—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Manager.
Nov. 25—Walworth Co. Holstein Breeders' Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 25—Holsteins. Dispersal Sale of H. H. & R. C. Walker at Du Quoin State Fair Grounds, Du Quoin, Ill.
Nov. 25—Holstein Dispersal. A. J. Miller, New Richmond, Wis.
Nov. 26—Holsteins. Washington County Holstein Breeders' Sale, West Bend, Wis. Paul A. Horlamus, Sec'y.
Nov. 26—Holstein Dispersal, Oak Hill Stock Farm, John H. Smith, Prop., Crown Pt., Ind.
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.
Dec. 2—Holsteins. Western Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Webster City, Secretary.
Dec. 3—Holsteins. Eastern Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Sec., Webster City.
Dec. 9—Holsteins. Dispersal of J. M. Kelley herd at Baraboo, Wis. Frances Darcey, Sales Manager.



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Produced 37,381 pounds of milk in one year, 72,931 pounds in two years

World's Record Milk Producer

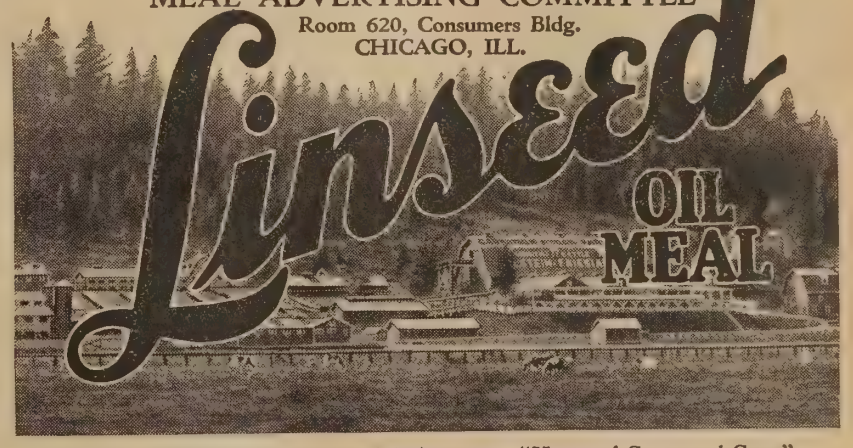
THE outstanding feature at the recent National Dairy Show at Milwaukee, Wis., was the world's greatest milk producer, Segis Pieterje Prospect. Visitors of all occupations and ages, crowded around her stall and read with admiration and wonder of her wonderful record. Her picture was in the daily papers, and was displayed in all the prominent stores of that city. Prospect is owned by

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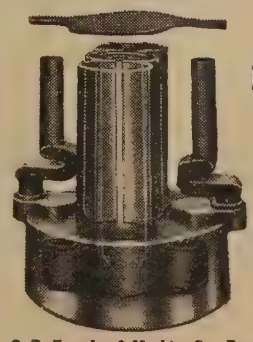


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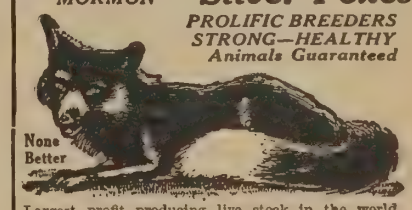
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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Danny Applies Business Methods to Club Work

Foreword: In this installment of the "Adventures of Daniel Dare" we find our young hero and his father absorbing a few principles of farm management as explained by an expert along these lines. Later Danny applies business methods to his club work by working on his record book. You will notice that Mr. Dare, Jimmie Watkins, and Jimmie's father all get a few new ideas. It's record book time for club members. Have you completed yours yet? This chapter will be concluded in an early issue of Hoard's Dairyman.

"Farming is a business," the speaker was saying, "and we can't expect to get very far if we don't treat it in a businesslike way."

Danny and his father were attending an evening meeting in the schoolhouse, called by the county agent. Mr. Donald, a farm management expert from the College of Agriculture was the speaker. The schoolroom was crowded with farmers and farm boys. Both Danny and his father appeared very much interested in the words of the speaker.

"There are certain methods that good business men use. You farmers aren't farming just for your health. You farm to earn your daily bread and butter. You can use the business men's methods just as well as they can. For instance, let me illustrate what I mean.

"A friend of mine is in the hardware business. I don't hesitate to say he is making a comfortable living. If I were to ask him what his net income was last year, he could tell me exactly. He could also tell me pretty correctly the value of the stock in his stores. If I were to ask that question of you men tonight, I'm afraid not very many could give me even an approximate figure offhand.

"How does my hardware friend know where he stands? Because he keeps books for one thing. There are other aids to his business. His store is known as The Ajax Hardware Company. He would no more think of doing business without a name than he would think of cutting off his right hand. He might call his firm the John Smith Hardware Company but perhaps some day he'll want to sell his business to some one whose name isn't John Smith. It means dollars and cents added to the selling value of his property because the name and all the good will that goes with it can be sold. How many of you farmers have names like that for *your farm?*

"My hardware friend has a typewriter with which he writes his business letters on stationery having an attractive letter head. He makes a carbon copy of his letters. They might come in handy in case of an argument later on. How about you? He has a checking account at the bank. His checks advertise his firm because he has the firm name on them. They also serve as receipts and are a great help in his bookkeeping. Do you do your business by a checking account? Another thing, my friend has a letter file where he files the letters he receives and the answers to them. Not a half bad idea. And for a quarter *you* can purchase a letter file which will last for quite a while.

"Bookkeeping—you hate the sound of the word. All right, let's call it record making. My hardware friend knows where he's at because he keeps books. Why won't it work for you? You believe in records, I know, because most of you are members of the cow testing association. By checking up on your cows, you eliminate the boarders and encourage the profitable producers. Just the other day I read in Hoard's Dairyman of a business man who moved to a dairy farm some years ago. One of the first things he did was to keep barn records on his cows. That was before the time of the cow testing association. When an association was organized in his community, he was one of the first to join and its best pusher. He knew the value of records. The result was that he has been making money the past few years when some of the others who haven't seen the light, are going heavier and heavier into debt each year.

"These are but a few suggestions which I hope you will make use of. We come now to this all important matter of farm accounts. Really it is not a difficult matter at all. Five or ten minutes a day is about all the time it requires on the average. A farm account may be simply divided into three sections—inventory (the placing of a valuation upon all your farm property), expenses, and money taken in. You don't need an expensive book to keep these accounts in. A ten-cent notebook would do all right. But here is a simple book which is so arranged as to make your record keeping easy. Certain pages are devoted to each farm problem—crops, horses, cattle, dairy products, hogs, sheep, poultry, labor, machinery, permanent improvements, and so on."

The speaker had a lot more to say about the farm record book. Mr. Dare was listening intently. Danny appeared interested. He leaned forward when Mr. Donald said:

"How many of you boys belong to a 4-H club of any kind?" Danny raised his hand. So did a number of other boys. "Great," Mr. Donald continued. "You're learning early the value of keeping records. You each have record books, don't you, where you keep track of all expenses and income from your club work? When you finish the year's work—and I expect that it's just about this time—you figure up the totals and discover whether you have made a profit or suffered a loss. Then you write a story of your season's experiences. . . ."

The next day was Friday, and Danny made it a point to see Jimmie Watkins.

"Jimmie, what do you say? Don't you want to come over tonight and we'll work on our record books. Maybe you can help me."

"Sure—good idea! I'll be over about half past seven."

The appointed hour arrived, and so did Jimmie. Around the table gathered a group of three, Danny and Jimmie with their record books, pen and ink, and Mr. Dare with pencil and paper and a new book.

"Dad, did you buy a farm record book last night?"

"Yes, I did, Danny. I've kept accounts after a fashion for some time, but I thought a little better system wouldn't hurt. The inventory idea is something I never used before, but I think it will be interesting. I'm going to make an inventory tonight. Mr. Donald said the first of January was the best time to start, but I think there's no time like the present!"

"Jimmie, didn't you like that man's talk last night?" Danny asked.

"You bet I did, Danny. My dad's had a typewriter for quite a while, but I noticed he bought a letter file today! And do you know what! We've just got a name for our farm today, too, and father had it registered with the register of deeds. That protects us from having anybody else in the county register the same name and it only cost a quarter. What do you think the name is, Danny?"

"Couldn't guess!"

"Twin Pines Dairy! You remember those two big pine trees on our lawn, don't you?"

"Sure enough, Jimmie, that's a good name!" Mr. Dare broke in.

"C'mon, let's get to work on our books," Danny insisted.

[To be continued]



DANNY AND JIMMIE AT WORK ON THEIR RECORD BOOKS

Here you see Danny getting a few tips from Jimmie. See the Hoard's Dairyman Juniors' button in Jimmie's coat.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Some day that little awkward heifer calf that you see toddling around in the barn will be a cow. It is well not to forget that even world's champion cows, yes and bulls, too, were once just as awkward as that youngster now is. It is important that the calf get the right kind of a start in life.

How do you feed your calf? How does your father feed his calves? What is the best way to feed calves? In answer to this question let us dis-



EDITH CLARKE, WISCONSIN, WON FIRST AT THE NATIONAL DAIRY SHOW ON THIS 2-YEAR-OLD HOLSTEIN HEIFER



FOY MENDENHALL UPHELD INDIANA CLUB HONORS AT THE NATIONAL BY WINNING FIRST ON THIS JERSEY IN MILK



CLARENCE KEPPEN, ANOTHER BADGER STATE CLUB MEMBER, WAS DECLARED THE BEST HOLSTEIN JUNIOR SHOWMAN AT THE NATIONAL

cuss that splendid article in the November 7th issue of Hoard's Dairyman entitled "Feeding the Dairy Calf" written by Charles W. Turner of Missouri.

Which is better, to have calves born in the spring or in the fall? Fall calves are ready to go on pasture the following spring. They need no attention as long as the pasture is good. Spring calves cannot be placed on pasture the first year.

How should the new born calf be fed? The first milk or colostrum has been shown to be vitally needed by the new born calf. It is interesting to note that the white of an egg has been found to be a very satisfactory substitute for colostrum.

How can you teach a calf to drink out of a bucket? By letting the calf suck your finger and putting the calf's head in the pail. The finger is then removed and the calf will start to drink the milk.

How much milk and how often should it be fed? From two to five pounds of whole milk fed three times a day until the calf is three or four weeks of age.

Discuss feeding grain and hay to calves. When the calves are two or three weeks old they will begin to eat small amounts of choice hay and grain. The latter should be fed dry and not mixed with the milk. The best time to feed grain is just after milk has been fed. The hay can be fed later.

When should a calf be fed skimmilk? As soon as the calf is able to eat hay, which contains vitamines, gradually replace the whole milk with skimmilk at the rate of one pound a day. The whole change can be completed by the time the calf is about four weeks of age. Because skimmilk lacks the fat found in whole milk, this should be supplied in grain feed.

How about feeding silage? It has been found that feeding silage before a calf is two or three months of age is not entirely desirable. Later silage is relished and forms a good feed for calves.

Which is better, to feed whole or ground grain? Whole grain is apt to be more thoroughly digested by the young calf up to the age of about six months. Calves seem to like whole grain better than ground grain.

Give a good grain mixture for calves. There are several good grain mixtures. The Iowa Station recommends the following mixtures: Corn, 5 parts; oats or bran, 3 parts; oil meal, 3 parts; also oats, 3 parts; bran, 1 part and oil meal, 1 part. A popular grain mixture consists of 3 parts corn meal, 3 parts ground oats, 1 part wheat bran, 1 part linseed meal.

Junior Letters

This Junior Knows Birds

Hoard's Dairyman Juniors:—I live on the next to the highest point of the Ozarks. If you know where the Ozarks are, you will know where I live. I live on a 280-acre farm. We have 16 head of pure-bred Holsteins and one grade cow. Daddy gave me a little calf when she was 4 days old. She is a pure-bred Holstein calf. We have 3 horses and 3 mules. One of them is two years old.

I know a lot of birds. They are the hawk, crow, buzzard, sparrow, jay, martin, robin, quail, woodpecker, yellow hammer, ground robin, mockingbird, phoebe, and butcher bird. The quails are very common around here in winter when the snow is on the ground. They are in big bunches and get under bushes. When it comes time for them to build, they pile a lot of sticks in a pile and make a nest out of them and the mother bird sometimes lays 20 eggs. I have seen them with 18 eggs. The mother bird will run a little ways off before she will fly so you cannot find their nest. The little birds will run away before they are 3 days old. I have scared up lots of bunches that have 25 little ones in it. Their eggs are shaped like a hen's egg and are white.

I received my badge, button, and creed. The badge came in handy for a watch chain, for I sold some snap fasteners and got a watch. If any of the juniors want to write to me, my address is R. 3, Box 13, Mansfield, Missouri.

Harold Haswell, Jr.

First Impressions of Club Work

Hoard's Dairyman Juniors:—I got my first impression of being a club member at our town hall in the first part of May in the year 1923. Mr. Howard, one of the state club leaders, was there at this occasion and induced me to join the Almsted County Boys' and Girls' Dairy Calf Club. About two weeks later Mr. Ausen, our county club leader, my father, and I went to the Mayowood Farm and here my father purchased my Holstein calf for $125.

I received my calf June 7th and I immediately began feeding and taking care of her. I therefore have had my calf under my care for about six months.

I have been feeding her about four pounds of ground oats and about eight pounds of clover and timothy hay per day, and I generally tie her out on grass for about two hours every night after I get home from school.

I am thirteen years old.

The name of the club to which I belong is the Olmsted County Boys' and Girls' Dairy Calf Club.

My calf won me a free trip to the State Fair and the International Live Stock Show and Second Annual Club Congress in Chicago. My calf gained 165 lbs. in 74 days at a feed cost of $10.92. My address is Rochester, Minn.

Carlton, Penz.

Earns College Money With Dairy

Hoard's Dairyman Juniors:—I live on a 115-acre farm about 3½ miles east of Franklin in the Rabbit Creek section but on the branch of it called Cat Creek. When any of you chance to come to Franklin call around to see me. I'll be glad to have you.

I am a Junior in high school. I walk from home to Franklin to school but I like it. Father and mother say it has done me good. My 15-year-old brother walks with me. My 5-year-old brother means to start a year from now. There is a school about a mile from here but it does not take us as far as I am so we do not attend it.

One of my classmates and I made the highest averages in high school. Her average was 95⅞ and mine 95⅝. We studied together.

I just love to milk so father says he'll let me run the dairy business for four or five summers to earn my college money and I am glad. It feels so much better when one doesn't have to depend on one's parents for everything.

This year we raised corn, soy beans, and mung beans and grass and clover. We are going to try soy and mung bean hay for the cows instead of so much boughten feed. Father sowed some sweet clover, just to try it.

If any of you were born September 26, 1908, I'll be glad to hear from you or anyone else. My address is Mary Lois Ferguson, R. 4, Franklin, N. C.

Liming for Alfalfa

Hoard's Dairyman Juniors:—We live on an eighty-acre farm. We have 4 horses, 13 cows, and 1 heifer, We also have a pure-bred sire and 5 yearlings. The sire's name is Prince Sterling Nesbit. I like Holsteins best. I milk 4 to 5 cows every night and morning. I help my mother in the house, also, and help with more than one thing in the barn.

We belong to the Almena Cow Testing Association. We live about 11 miles from the largest co-operative creamery in the world, which is called Barron or "The Butter City". Barron County is free from T. B. They are going to organize a calf club in Barron County, which I surely want to be a member of. In December, 1923, my father ordered five tons of lime and several others in Almena Cow Testing Association ordered lime, which amounted to two carloads. It came to our closest town, which is four miles and a quarter form our home. It was at our town Saturday, March 8th. The roads were bad, as we did not have much snow last winter. On the way to get the lime, my father's sleigh pole broke and he had to get a new pole. So you can see what fun he had getting five tons of lime. We expected to lime a piece of soil and plant alfalfa on it.

I wish some of the juniors would write to me. My address is R. 2, Clayton, Wis.

Gertrude Hamlow.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

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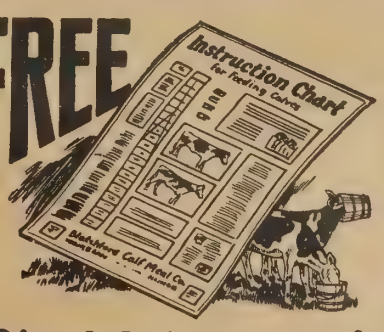
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I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

1,000 lb. yearly record two year old bull for sale. Prilly breeding, sires nearly all heifers and straight rumps. Retest. Price $500.00. O. WESTERHEIDE, New Douglas, Ill. 15-*

A few serviceable and near serviceable registered Holstein bulls. Also all classes of females. MARINETTE COUNTY ASYLUM, Peshtigo, Wis. 15-4

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Holstein Herd Sire for sale or will trade for either grade or pure bred federally tested females. "North Star Gift Champion," a 4 yr. old son of "Johanna Bonheur Champion". Dam, the great 1,000 lb. cow "Little Gift of Spring Valley". Light in color, easily handled and guaranteed. Write or visit Walcowis Farms, Lake Geneva, Wisconsin 17-*

For Sale—Seventeen bred Holstein heifers. ED. WILLIAMS, Barneveld, Wisconsin. 17-2

Holsteins springers and fresh cows in car lots. W. STRAUSS, R. 5, Watertown, Wis. 17-2

Holstein Bulls, all ages by 100 pound milk and 40 pound butter sires. Farmers Prices. ROY HARRIMAN, Appleton, Wisconsin. 14-spl

For Sale—High grade T. B. tested, Holstein springers, carload lots. S. L. MURDAK, Troy Center, Wisconsin. 16-Spl.

For Sale—4 young registered Holstein cows just fresh, also 2 calves. FRANK STONE, Kewanee, Ill.

50 Registered Holstein cattle sale November 19, 28 lb. bull, accredited. Write for particulars. CHARLES HUSBAND & SON, Wakarusa, Indiana.

Son of Matador Segis Walker from year record daughter of Johanna McKinley Segis for sale. He is three quarters brother to Matador Segis Walker 6th. 4 years old and guaranteed to be right in every way. We have 25 of his daughters in our herd which is federal accredited. GLEN RAMSEY, Fort Atkinson, Wisconsin. 18-4

For Sale—Fresh and springing T. B. tested Holsteins. JOSEPH FISHER, Janesville, Wis. 18-3

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

Pure Bred Guernseys—Yearling bull, sire's dam 710 lbs. fat, grandam sold for $2,500. Priced to sell. Several cows and bred heifers. ECHO BAY FARMS, Geo. E. Schuette, Supt., Elcho, Wis. 17-2

10 High Grade Guernsey Cows, 12 Holsteins. All to freshen soon. JACK Mc NULTY Mukwonago, Wis.

Two Serviceable Guernsey bulls for sale whose dams and sires' dam average 705 lbs. fat. HOMER RUNDELL, Livingston, Wis. 18-*

175 Guernseys—Registered and high grade, sell in County Breeders Sale November 26. Send for catalog and for full information. H. W. GRISWOLD, West Salem, Wisconsin, Sale Mgr. 18-2

Ten Good Grade Guernsey cows. Young. Due in December. Tested at $85.00 each. EDW. YOHN, Watertown, Wis.

For Sale—Carload of Guernsey springers, good size, young and carry flesh. Close to freshening. Don't write, come and look them over. JAMES STOCKS, Dousman, Waukesha Co., Wis.

For Sale—Ten Jersey cows and heifers at a bargain. Accredited herd. M. C. VOSBURG, Fort Atkinson, Wisconsin. 17-2

Jersey Heifers—Carload (80) ages six to twelve months; no runts, culls, or off color; every one good and from good producing cows. $12 around. F. O. B. here. ED. SHARP, Wolfe City, Texas.

For Sale—Carload of yearling Jersey heifers. BOYD BERDO, Washington, Iowa.

STOCK WANTED

Guernseys: Ten fresh or springers, with cow testing records, must be guaranteed free tuberculosis and abortion and priced right for cash. J. HOWARD CLIFFE, Ivyland, Pennsylvania. 12-*

Wanted—Fifteen unbred Jersey heifers. GUY SHANNON, Storm Lake, Iowa.

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

SWINE

Hampshire sows and gilts. Best type. Boars. Priced low for early sale. EDGAR BUZZELL, Delavan, Wisconsin. 18-2

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Alfalfa Hay—For sale. Choice pea green second and third cutting. Weights and grades guaranteed. Write for delivered prices. ALBERT MILLER & CO., 192, No. Clark St., Chicago, Illinois. 12-*

Baled Hay—We are now baling our surplus alfalfa. If you would like a carload place your order now. Market prices. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 16-4

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

Feed Powdered Limestone. High grade Waukesha Limestone. Ground to the fineness of flour, especially for feeding. Send $1.00 for two trial sacks. WAUKESHA LIME & STONE COMPANY, Waukesha, Wisconsin. 15-spl

TOBACCO

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Kentucky. 16-4

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50. Smoking 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and recipe free. FARMERS UNION, Paducah, Kentucky. 17-4

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

Perfection Milker outfit, two double units complete for thirty cows; used three months; two hundred dollars. CHAS. TATOR, Chatham, N. Y.

Victor Junior Power churn good as new $75.00. WALTER GERWIG, Forreston, Illinois.

For Sale—A first class equipment for cheese making. For particulars write DUNLAP CHEESE CO., Dunlap, Illinois.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

Milk and Cream testing. State license. Our service will interest you. THE NAPERVILLE LABORATORY, Naperville, Ill. 18-2

FOR RENT

For Rent—Modern Dairy Farm, two hundred acres, one hundred head of Registered Holstein cattle. Modern improvements, all machinery, implements and horses needed. Separate houses for help. Can raise all feed. Retail milk route now established. Will rent to responsible party. Must have from $3,000 to $5,000.00 capital. Address BOX 345, Care Hoard's Dairyman.

For Rent dairy farm, 200 acres on shares 50-50 basis, Southern Michigan near South Bend, on cement road. Barn for 30 cows. Prefer Guernseys. Possession March 1st. Address BOX 346, Care Hoard's Dairyman. 18-4

Real Dairyman—Great opportunity! I have a very fine 620 acre farm of fertile, level, tiled black soil which produced 8,500 bushels of grain and 600 tons of alfalfa and mixed hay and 85 bushels of alfalfa seed this year. Also 3,000 acres of cutover pasture land near at hand. 5 big sets of improvements. This farm will support 100 to 200 head of milch cows. Will consider renting to a real dairyman, married, who has some capital, either for cash rent or share rent. Might consider dividing into two parts. Address owner, P. O. Box 1060, Chicago, Ill. Give experience, size of family, ages and amount you can invest. FRANKLIN C. BROWN, 77 West Washington Street, Chicago, Ill.

WANTED TO RENT

Wanted to Rent—Good sized farm near city, preferrably with milk route or would consider partnership with working partner for large proposition. Ample means and references. Address BOX 343, Care Hoard's Dairyman. 18-2

FARMS FOR SALE

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

Highly Improved 400 acre dairy farm. 70 Holstein dairy cows. Close Kansas City. Attractive price. MANSFIELD BROTHERS, Ottawa, Kansas. 17-2

Dairy Farm for sale. Green pasture year round. Market for all milk produced. Write for information. BLAND'S DAIRY, Metter, Georgia.

Improved farms in Minnesota and North Dakota can be purchased on 34 years time, without any cash payment, by persons who have their own help, equipment and livestock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minn. 18-*

Oregon Excells in Dairying—Mild, short winters. Green feed summer and winter in most sections. No severe storms. Short feeding season. Heavy milk flow. Soil and climatic conditions combined produce healthy, vigorous cows. Six out of eight Jersey world records for butterfat production are held by Oregon. Good markets. Dairying pays well in Oregon. Banking and business interests united with farmers to provide markets and make agriculture a success. Get the official facts FREE by writing to LAND SETTLEMENT DEPT., Room 621, Portland Chamber of Commerce, Portland, Oregon.

Rare Opportunity—For breeder of Holstein cattle 211 acre farm for sale. Modern improvements, running water, elctric light and power, sewerage. All machinery and equipment needed. Two cow barns, bull and calf barns, to hold one hundred and thirty head. Four houses. Now established retail milk route, 15c per quart, direct from farm. Can sell milk to pay profit over all expense, only way to profitably raise cattle. Best of reason for selling. Payment of $15,000.00 will handle proposition. Address BOX 344, Care Hoard's Dairyman.

Southern Dairy Farm, year round grazing, well stocked and equipped. Good market, good road, attractive home; pecans and fruit trees. P. O. BOX 1081, Mobile, Ala. 18-2

160 acre dairy farm right on the Jefferson Highway in upper Minnesota. Well improved, excellent soil, good drainage—only $41.50 per acre, $500 cash, balance at 3%. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, St. Paul, Minnesota. 18-4

Chino, California "Where Everything Grows." Dairies alfalfa, walnut, fruit, vineyard, poultry, rabbit and truck ranches. FRANK ALLEN, Chino, California.

For Sale—My 80 acre farm with all stock and machinery. Reason for selling old age. For more details about this farm write to WM. HANKE, Sr., R. 2, Wittenberg, Wisconsin.

$1200 Secure 327 acre farm, crops, horses, 29 cows and young stock, 200 poultry, full equipment, hay, potatoes, corn, oats, etc.; splendid bldgs., noted farming district, best markets; smooth, productive fields, abundance water, valuable woodland, wire fences; variety choice fruit; 9-room house, running water, 39-cow basement barn, silo, other bldgs. Low price $6500 for all, only $1200 needed. Details pg. 54 big Bargain Catalog Illus. money-making farms and business chances. Free. STROUT FARM AGENCY, 150DL, Nassau St., New York City.

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. BECKENNELS, K-28, Herrick, Ill. 18-4



Advertising in this department is 7c per word. Remit in advance.

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Expert Holstein Cattleman desires position as manager of large Eastern or Southern farm or estate. Has bred Holstein cattle for 25 years, also fed and developed some of the highest record cows of the breed. Familiar with the best lines of Holstein breeding. Thoroughly experienced in the development and management of large farm or estate. Looking for position on salary and commission or straight salary basis. American, 46, married, no children. Address BOX 335, Care Hoard's Dairyman. 17-2

Experienced Farm Manager desires position on large dairy farm. Wife to cook for hired help. Best references. Address 2325 Ohio Ave, Madison, Wis. 17-2

Position Wanted—By an experienced farmer as farm manager, foreman or first class farm mechanic. Address BOX 339, care Hoard's Dairyman. 17-2

Dairyroom man wants work on up to date farm. Experienced. State wages etc., in first letter. Address BOX 338, care Hoard's Dairyman. 17-2

Wanted—an opportunity to prove that I can be of real service to you as herdsman or farm manager on modern Jersey or Guernsey farm. Married, no children. Successful farmer, practical dairyman, skilled showman, college graduate. Must give 30 day's notice. W. W. RUMMELL, 1619, Highland St., Columbus, O.

Wanted—Work on dairy farm by experienced, reliable married man, 40, no children home. Can balance rations, keep records, good dry hand milker and calf raiser. Would rent. Address BOX 349 Care Hoard's Dairyman.

Position Wanted by young couple on a farm in Wisconsin as caretaker, or with some batchelor. Understand all work. Wife a good cook. Have 2 boys. Address BOX 350, Care Hoard's Dairyman.

Wanted—By single man position as herdsman. Experienced. James Norris, Care O. R. Kingsley, Cambridge Springs, Penna.

Wanted—Job on large farm by two single Americans, 25 years old, lifetime experience with tractors, milking machines, etc. Would prefer southern states. Good references. A. C. LEWIS, Care Bolard Dairy Farm, Cambridge Springs, Penna.

Position Wanted as farm superintendent with life experience in high class farming in all its branches. Can handle large estate and men to best advantage. Would prefer place to build up gentleman's estate or summer home. Good salary expected, very best of references from last two places of nine years each place. Could take position any time now or within three months. Address BOX 342, Care Hoard's Dairyman.

POSITIONS WANTED

Manager of Dairy Estate, a gentleman who has just come over from Denmark where he has managed large estates and who is an expert on dairy farming as well as general farming. Wants to get a position as manager. Has spent several years in this country before. Finest references from Denmark and this country. HENRY B. ANGETO, Care Hanover National Bank, Nassau Street, New York City.

Wanted—Position as creamery superintendent, fifteen years experience in manufacture of all dairy products. Address BOX 352, Care Hoard's Dairyman. 18-2

Position Wanted by A 1 herdsman, high position only. Or will run equipped dairy farm on shares. Can give best of references. A. A. WAAGE, Monticello, Wisconsin.

Position Wanted—Experienced dairy farm manager wants position on up-to-date dairy farm. Willing to take a real proposition on a profit sharing business. Thoroughly experienced in purchasing herds and erecting modern buildings. Now managing the largest dairy farm on eastern shore of Maryland producing certified milk. Address W. A. SIMPKINS, Salisbury, Maryland. 18-*

HELP WANTED

Ten Testers Wanted before December 1st for one year in Cow Testing Associations. Prefer single men over twenty one years of age having Short Course or herdsman training. Tell experiences in dairy cattle feeding and operating Babcock tester first letter. With salary $75 to $80. Write CRAMER, Dairy Records Bldg., Madison, Wis. 17-2

Wanted—Men with practical dairy experience for cow testing association work by December first. Salary about $75.00 per month. Give references first letter. H. E. JAMISON, Dairy Department, University of Illinois, Urbana, Illinois. 17-2

Fireman, Brakeman, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 17-4

Wanted—At once, married herdsman—Guernseys. House, garden and milk furnished. State age, experience, number of children and wages in first letter. LLOYD RUNDELL, Roberts, St. Croix County, Wisconsin. 17-2

Wanted—A good single man on up-to-date farm. Clean habits, no cigarettes or drink; must be energetic. Good salary. Address BOX 348, Care Hoard's Dairyman.

Wanted—Middle aged couple, no children, on small dairy farm with 25 cows. House and milk furnished. Good wages. Prefer German. CHAS. L. Mc ELROY, Box 434, Wynne, Ark.

Wanted—Single man to feed and care for Guernsey herd and assist in milk house bottling milk for city delivery. One mile from town. State wages expected and give reference in first letter. EDWARD C. ROSSEY, New London, Wisconsin. 18-2

Wanted—A man to work in creamery. Must understand using the Babcock Test, pasteurizing and standardizing milk and cream. Give age, wages wanted and send references. Address BOX 347, Care Hoard's Dairyman.

Mail Service Employees Needed. For instructions write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 16-*

Wanted—Good reliable single man good milker for dairy farm. Steady with good habits. CRYSTAL SPRING STOCK FARM, Littlestown, Pa. 18-2

Wanted—Experienced man to take care of our test cows. Must be a first class fitter and feeder for high records. One successful in the past and capable of producing results now. Must be of good address, sober and willing to work in co-operation with herdsman. Copy of references and full particulars in first letter. Place near Pittsburgh. Guernsey herd. BEECHWOOD FARMS, Sharpsburg, Pa. 18-2

Wanted—Experienced working dairyman on share basis—50-50—or salary, on 600 acre farm, raising corn, hay, and grain. Now milking 20 cows. Would like to increase dairy business and want man capable of handling dairy cattle and who knows how to produce grade A milk. We have year round pastures. Seldom need to shelter cows at night. Whole milk sells for four dollars. Four land owners here want similar kind of men. Write me. HUGH F. Mc ELDERRY, Talladega, Alabama.

Wanted—Reliable dairyman with capital to furnish cows, 100 gallons milk per day. 105 acres equipped. West Virginia, steady market, good future, permanent. State fully in first letter what you can do and when. Living conditions ideal. BLUEFIELD DAIRY CO., Bluefield, West Virginia.

Wanted—Married man for all around farm work at once. Have tenant house. State experience and wages first letter. FRED GLADE, Stillwater, Minn.

Wanted—First class man, general farm and dairy work. Steady employment. Good home and working conditions. Wages $55.00, board, washing with advance if worthy. References. VERNWOOD FARM, R. 2, Mukwonago, Wisconsin.

Massachusetts Guernsey Record

William R. West, of Massachusetts has a pure-bred Guernsey cow, Fine Feathers of High Hill, that has been on Advanced Register test for four consecutive years, resulting in records that prove her profit to her owner. She has just completed a record of 15,750.3 lbs. milk, 812.13 lbs. fat during the past year, and she was only six years old at the time she started her test. In addition to this record, the official production for the three years previous reads like this: At 2½ years: 10,297.9 lbs. milk, 511.38 lbs. fat; at 4 years: 12,863.2 lbs. milk, 643.57 lbs. fat; at 5 years: 15,505.6 lbs. milk, 767.24 lbs. fat.

She has therefore produced during four consecutive years, 54,417 lbs. milk (about 6,556 gallons), and 2,734.32 lbs. fat. It is estimated that if the milk this cow produced were all placed in pint bottles, and the bottles placed side by side, they would make a row two and one-half miles long of Golden Guernsey milk testing five per cent. Again if her milk were placed in quart bottles, and the bottles placed one on top of the other, they would make a tower 27½ times as high as the Woolworth Building.—The American Guernsey Cattle Club.

BROWN SWISS



SWISS VALLEY GIRL 7TH NO. 4678

Breed Brown Swiss Cattle

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N
IRA INMAN, Secretary, Beloit, Wis.
A. E. BOWER, Pres., Union Stock Yds., Cleveland, Ohio

LEES' HILL
Accredited Brown Swiss Herd
"FORMERLY KINNELON HERD"

Offers a splendidly bred bull calf by a grand Champion National Dairy show winner and out of a first prize National Dairy show cow with a large A. R. record. Let us send you full particulars.

LEES' HILL FARM, Morristown, N. J.

WALHALLA FARM
BROWN SWISS HERD
BRIER HILL, NEW YORK.

Founded 1900. Federal Accredited. Official average of the herd 13,925 lbs. of milk, 551 lbs. of fat. Breeding stock for sale. Address all correspondence to
J. FRANK ZOLLER, Schenectady, N. Y.
Care General Electric Co.

Brown Swiss Herd For Sale

TWELVE PURE-BREDS, headed by Carl's Last, prize winning aged bull at Wisconsin State Fair and nine other fairs this fall. Also seven grade females. Entire herd will be sold at once. Write or come.

C. E. SMITH, 500 Broad St., Beloit, Wis.

GUERNSEYS

Island Farm Guernseys

Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.

ISLAND FARM, Box A, Floodwood, Minn.

Dairy Herdman's Short Course at K. S. A. C.

The Kansas State Agricultural College offers a two weeks' course of intensive training in the feeding and management of dairy cattle, beginning December 1,

The course consists of lectures and laboratory studies on care, feeding, and management of dairy cattle, judging and showing, history of dairy breeds and pedigree analysis, sanitation, milk testing, cheese and farm buttermaking, and the production of crops on the dairy farm. This course will be just as practical in nature as possible to make it and is especially recommended for men who handle pure-bred cattle, or wish to become cow testers. Anyone with the equivalent of an eighth grade education is eligible. Tuition is free and as no text books are required the only cost will be that incidental to living in Manhattan for two weeks. For further information address the Dairy Department, K. S. A. C., Manhattan, Kansas.

Dairy Courses Offered at Ames

The second term of the six months' Course at Ames, Ia., begins January 5, 1925, and closes March 20. A student desiring to enter the Six Months' Course must be at least seventeen years of age, and must have satisfactorily completed the eighth grade of the public schools or its equivalent.

Students may enter the Six Months' Course in either fall or winter quarter. Men of considerable practical experience may not care to take more than three months' work. For such students we recommend the winter quarter.

The Ten-day Short Course for experienced buttermakers, ice cream makers, and creamery managers is given from February 11 to February 21. Further announcement in reference to this course will be made later.

For further information address the Dairy Department, Iowa State College, Ames, Iowa.

Beware of Cattle Swindler

Beware of a man who works the following scheme. He comes to you claiming to have bought part of a load of grades (Holsteins) in some territory near you. You drive him to finish his load. He buys freely, but pays nothing down. At night, or just before banks close, he exhibits a telegram from an out-of-state bank stating that he has funds on deposit. He writes a check for enough to finish paying for his purchases in the territory where he bought the part load, saying he will go to pay for them and then comes back to finish with you. He presents this check at your bank. He asks you to sign on his check as endorser. Don't do it!

A man claiming to be H. C. Helms of Nashville, Tennessee, worked this swindle on one of our Holstein county sales managers, making away with $650. Telegrams to the Nashville bank brought forth information that no such man had ever had any deposits to his credit in such bank, as he claimed, but that a man of such name was wanted by the Nashville police.

If you meet this man, or obtain any information regarding him, wire me at once.—J. G. HAYS, Dairy Dept., Michigan Agricultural College, East Lansing, Mich.

Aunt Ada's Axioms: They say modern boys and girls use home mainly as a place to get ready to go somewhere else but they eat there most of the time; table talk gives the best chance to set high standards.

DISPERSAL SALE!
FARIBAULT, MINN.
NOV. 20th, 1924
24 Pure-bred Jerseys, 5 Grade Jerseys

A splendid producing herd. Popular breeding and real show quality. Two truck service from the Twin Cities on Jefferson highway.

Henry Jackson, Auctioneer, Faribault.

L. E. WIGANOSKY, OWNER,
R. 3, Faribault, Minn.

HOLSTEINS

35 Lb. Show Bull

Homestead breeding. Born Nov. 19, 1923. Son of our Wisconsin State Champion, Nellie Empress Homestead, with 35.03 lbs. of butter from 565.3 lbs. of milk, at four years. A splendid individual. A prize winner at the State Fair. Accredited herd. Write for pedigree, photo, and price.

LEWIS BROS. Lake Beulah, Wis.

50 Registered Holstein Females 50
—At a Bargain—

Only three over five years old. All of the finest breeding. For quick sale $140 apiece. The farm is sold and they must be.

M. E. PENROSE, 1200 Curtis St., Denver, Colo.

Fond du Lac Co. Holstein Sale!
Nov. 24-25, Fond du Lac, Wis.

125 HEAD Choice Holsteins

Catalogs now ready.

We will offer a fine lot of registered cattle. Some excellent springers—25 serviceable bulls from A. R. O. dams with records up to 27 lbs.

S. H. BIRD, SOUTH BYRON, WIS.

ORMSBYS ORMSBYS

Complete Dispersal--Sunny Hill Herd

Tuesday, Nov. 25 At Farm, 1 mile east of **New Richmond, Wis.**

27 COWS 15 HEIFERS 7 A. R. O. BULLS

The herd is rich in the blood of Pietertje Maid Ormsby, Colantha 4th's Johanna, and Aaggie Cornucopia Pauline.

SENIOR HERD SIRE: King Korndyke Grace De Kol 166273, a 31-lb. son of King Korndyke Colantha Ormsby. Twelve of his daughters are in the sale with records up to 27.42 as Junior 3-year-old.

JUNIOR HERD SIRE: Tidy Aaggie Pietertje Ormsby 329257, sired by a 28-lb. grandson of Aaggie Cornucopia Pauline and from a 927-lb. granddaughter of Sir Pietertje Ormsby Mercedes that won first prize at National Dairy Show and Grand Champion at Minnesota State Fair, 1922. There are eighteen of his daughters in sale, and all bulls offered are sired by this bull. All cows are bred to him.

Herd is federal accredited and will be sold subject to retest
"A Typy Herd" "Great Producers" "Real Foundation Stock"

For Catalogs write to A. J. MILLER, NEW RICHMOND, WIS.

ORMSBYS ORMSBYS

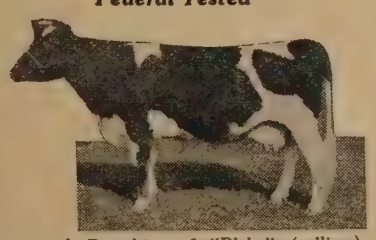
Reminder! The World's Largest Consignment Sale of **REGISTERED GUERNSEYS**
WEST SALEM, WISCONSIN, NOVEMBER 19-20, 1924

These cattle are consigned by more than 100 of the leading breeders of Guernseys in Wisconsin and are their choicest animals. Included are 125 mature cows, 125 heifers from 8 months to two years old, 30 registered bulls. Many of the animals have large Advance Registry records, many were leading prize winners of the show circuit this season.
Charles L. Hill in the Box.

Write for catalogs to O. G. CLARK, MGR., West Salem, Wisconsin.

Arden-Mineral Springs Fall Sale

NOV. 21-22
State Fair Grounds
ST. PAUL
Federal Tested



A Daughter of "Piebe" (selling)

75 Pure Bred Holsteins
To be Sold November 22d

A WONDERFULLY CHOICE LOT OF FOUNDATION HOLSTEINS, CONSIGNED FROM THE HERDS OF J. M. HACKNEY, MINERAL SPRINGS STOCK FARM (O. H. Gray and Axel Hansen) and W. S. MOSCRIP.

Sons and daughters of Piebe Laura Ollie Homestead King, King Segis Pontiac Count, Duke Pietertje Korndyke Ormsby, Bessie Fobes Oak Homestead, Sir Johanna Bess Segis and many other noted sires.

Popular Bloodlines - Splendid Type

100 High Grades
To be Sold Nov. 21st

CONSIGNED BY THE NORTHWEST GRADE COW MARKET, J. M. Hackney, President, St. Paul. Without question the GREATEST LOT of GRADE HOLSTEINS EVER OFFERED AT AUCTION in the NORTHWEST.

A wonderful consignment of Grade Holsteins of splendid type and breeding. Not a cull in the lot. Practically every one is a close-up springer and only young cows and bred heifers are included. Money makers, every one of them, and the kind you can't usually get a price on.

Buy them at your own price!

Send for Descriptive Folder

TWIN CITY PEDIGREE & SERVICE CO., Sales Mgrs., 211 Market Bank Bldg., Minneapolis, Minn.

POULTRY On The DAIRY FARM



Feed the Poultry Milk

The value of milk as a poultry feed has been brought out in the last few years. This should prove of interest to the dairy farmer, since he usually has plenty of skimmilk each day. When a small portion of this is saved for the poultry, an increase in egg production will be realized, providing the hens are fed a good assortment of whole grains and some mash. The Missouri Agricultural Experiment Station Bulletin No. 197 cites a very interesting experiment with regard to the value of milk as a poultry feed. When sour milk was given as a source of protein, the average egg production increased from 113 eggs per year in a tankage ration, to 128 eggs per year in the sour milk ration. The addition of sour milk also reduced the amount of feed necessary to produce a dozen eggs from 9 lbs. to 7.2 lbs., not including the milk which contains a very small amount of dry matter. The mash which was fed consisted of equal parts by weight of bran, shorts, and corn meal, to which was added all of the sour milk which the birds would drink each day. The sour milk was fed in open pans and the mash fed in the hopper. One hundred birds will consume from three to four gallons of milk per day. It is very important that the birds be given no water, because enough water is taken into the system through the sour milk. This illustrates the value which may be attached to skimmilk and teaches us that many poultrymen, particularly the farmers, with their flocks of poultry, are not making use of a very cheap source of feed.

Milk may be fed in three forms, namely buttermilk, skimmilk which may be divided into sour and sweet skimmilk. Buttermilk has a higher feed value than skimmilk but is higher in price and the supply is not as great. It is skimmilk which offers to the dairy farmer an important means of increasing his season's egg production and of making that increase at a very slightly greater cost. Leghorn pullets consume an average of about 93 lbs. of skimmilk a year. When all of the milk the layers will drink is added to a ration consisting entirely of grains, it is worth about 25c per hundred when meat scrap is worth $2.50 per hundred. The addition of skimmilk to a ration increases the consumption of other feed and in this manner serves to stimulate greater egg production.

Skimmilk may be fed either sweet or sour but is to be preferred sour. Sour milk has the most favorable influence on growth and vigor and is an important agent in the reduction of mortality from all causes. In one instance two 100-bird lots of February hatched White Leghorn pullets were both fed a standard ration but one pen had access to sour skimmilk at all times while the other did not; the sour milk lot laid 3,661 eggs more in a year than did the no-milk lot, or 36 eggs more each. It is usually figured that 100 lbs. of skimmilk takes the place of 5.4 lbs. of meat scrap in the ration.

Many farmers are not availing themselves of this splendid opportunity which the feed of skimmilk offers. Practically every farmer has a chance to secure skimmilk. This skimmilk may be turned into money perhaps better through poultry than any other form of live stock. The advantages gained through the feeding of skimmilk may be summed up as follows: More eggs per hen per year; less feed required to produce a dozen eggs; a healthier flock; and a cheaper source of protein than meat scrap or tankage.

The following ration illustrates the proper way of using skimmilk: Grain mixture—2 parts by weight of corn and one part of oats. Mash mixture—100 lbs. ground corn, 100 lbs. ground oats, 100 lbs. wheat bran, 100 lbs. wheat middlings. All of the sour skimmilk the poultry will drink—no water given.

The reason for feeding skimmilk lies in the fact that the skimmilk increases the palatability of the other feeds and also supplies the protein part of the ration. Let us utilize skimmilk to its greatest advantage on the dairy farm.—O. A. HANKE.

A Few Seasonals

The first complaint about colds in the pullet flock has been received. Trying to take the full advantage of a rare fall may lead more into the same trouble.

Rather than allow the pullets to remain roosting in trees until after the first cold rains and cold nights, one should have them properly housed at this time. A more rapid development will result by housing and proper feeding.

Another cause of colds is due to crowding. A mighty fine flock of Reds was seen just recently that were all huddled on the floor because roosts were not available.

It is a hard problem to teach pullets to roost after they have become accustomed to crowding on the floor. The crowding which results causes heating and the birds become chilled when turned out in the morning. There is not a more ideal manner in which to get colds started.

If a temporary partition can be placed in the house to separate the pullets and hens until a little later in the season, better results will be obtained. Most of the pullets are cowed by the hens and do not have a fair break in getting their share of feed. Feeding methods should be different with the two classes for at least a part of the late fall. With a little more development and confidence the pullets will overcome this disadvantage and feeding practices are more comparable after production has been well started. J. B. HAYES.

Hen Makes Another World's Record

On September 11 a White Leghorn No. B-207, known as Lady Purdue, broke the world's record for long distance laying. On that day her egg record totaled 1,341 eggs which is more eggs than any hen was ever known to have laid in a trap nest throughout the entire world. This hen was hatched in April of 1916 and during her first year laid 217 eggs, second year 182 eggs, third year 150 eggs, fourth year 204 eggs, fifth year 187 eggs, sixth year 140 eggs, seventh year 163 eggs, and this year 98 eggs to September 11. The mother of Lady Purdue laid 183 eggs and came from unknown ancestry. The sire of this hen was hatched from a 252-egg hen and was sired by a famous male known as John Purdue. This male has been the ancestor of most of the high laying Leghorns now on the Purdue Farm. Lady Purdue has produced but four infertile eggs during all of her hatching seasons and these have all been produced in the last two years. Some 70 chicks have been hatched from her eggs. There have been quite a number of daughters raised from these chicks and many of them have laid well over 200 eggs.

Purdue has been giving a good deal of study to the question of longevity in egg production, trying to develop a strain of Leghorns that will not only lay well one year but will continue this production through many years. This is an economical proposition since if found practical, will reduce the number of chicks necessary to be hatched and reared each year. Every year the Poultry Department produces records of 1000 eggs from two or three hens and this year has been no exception, three new hens coming into the 1000-egg group.

Thirteen hundred and forty-one eggs weighing two ounces each would mean a production of 167⅝ pounds which is practically 42 times the bird's body weight.—Purdue Experiment Station.

Bulletins of the Week

A Colony Brooder House that Starts Chicks Right, by L. E. Card and F. P. Hanson. Circular 291, Illinois Experiment Station, Urbana, Illinois.

The Wonderful Story of Wisconsin's Dairy Industry, pamphlet by Hon. J. Q. Emery, Dairy and Food Commissioner, Madison, Wis.

City Rubes, a play in one act, by H. B. Stevens, published by University of New Hampshire Extension Service, Durham, N. H.

Perennial Sow Thistle, by O. A. Stevens. Bulletin 181, North Dakota Experiment Station, Agricultural College, N. D.

An Economic Study of Farming in Southwestern North Dakota, by R. E. Willard and L. A. Reynoldson. Bulletin 180, North Dakota Experiment Station, Agricultural College, N. D.

A Comparison of Early, Medium, and Late Maturing Varieties of Silage Corn for Milk Production, by G. C. White, L. M. Chapman, W. L. Slate, Jr., and B. A. Brown. Bulletin 121, Storrs Experiment Station, Storrs, Conn.

Corn Root, Stalk, and Ear Rot Diseases and Their Control Through Seed Selection and Breeding, by J. R. Holbert, W. L. Burlison, B. Koehler, C. M. Woodworth, and G. H. Dungan. Bulletin 255, Illinois Experiment Station, Urbana, Ill.



For bedding most convenient, serviceable and sanitary. Write for prices.
Jagerson Fuel Company, Neenah, Wis.

ALFALFA HAY

We are now baling our surplus alfalfa. If you would like a carload place your order now. Market prices.

HOARD'S DAIRYMAN FARM,
Fort Atkinson, Wis.

A tobacco that never changes, deposes Mr. Bruce

And you'll say he ought to be a judge

Mr. Bruce doesn't know of the eternal vigilance that its makers exercise to keep "good old Edgeworth" unchanged in quality. But it is our conviction that a man buys the next tin of Edgeworth because he liked the one before it.

Therefore, it is up to us to see that he gets what he is trying to buy—"more of the same." We are glad to know that Edgeworth smokers realize the uniformity that we rather painstakingly maintain for them.

And Mr. Bruce is well qualified to testify on this point. He tells us that he averages better than half a tin a day, and he has been smoking Edgeworth for eight years.

Let's see—that's something like 1461 tins for Mr. Bruce, according to our office calculator. But Mr. Bruce's own letter will be more interesting than our comments. Here it is:

Savannah, Ga.
March 14, 1924.

Messrs. Larus and Bro. Co.
Richmond, Va.

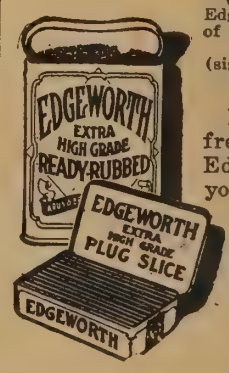
Gentlemen:

I have been using Edgeworth since 1916 and think it is the best pipe tobacco on the market. The flavor and aroma are distinctive; the quality, being the very best, never changes; and as I have smoked nearly every brand of pipe tobacco made, I have never found its equal.

My pipe is in my mouth nearly every hour of the day, and I smoke continually, using a can in less than two days, but have never felt any bad effects from Edgeworth.

I have the best smoking combination there is—a can of Edgeworth and a B B B curve stem—and these two friends, having been with me for eight years, are going to be with me as long as I live.

Wishing you and Edgeworth the best of success, I remain,
Yours very truly,
(signed) F. K. Bruce,
705 East 39th St.



Let us send you free samples of Edgeworth so that you may put it to the pipe test. If you like the samples, you'll like Edgeworth wherever and whenever you buy it, for it never changes in quality.

Write your name and address to Larus & Brother Company, 57 South 21st Street, Richmond, Va.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound, and also in several handy in-between sizes.

We'll be grateful for the name and address of your tobacco dealer, too, if you care to add them.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Ready-Rubbed for the same price you would pay the jobber.

BULL BROS.

HOLSTEIN SALE!

Tuesday, Nov. 18

TERMS CASH

Owing to loss of barn by fire we must sell

70 Registered Females 70

Offering will include 50 heifers up to four years, all daughters of K. P. B. A. Fedora King, a proven grandson of King of the Pontiacs from Novelty Fedora Hengerveld, 1022 lbs. butter, 22,000 lbs. milk, 4 years; 800 lbs. at 2 years.

K. P. B. A. has daughters with 900 lbs. as 2-year-olds to 1100 lbs. at maturity.

These heifers have been raised on hay entirely; no ensilage has been fed on farm for past seven years, and they have passed their lives outdoors.

Herd is free from tuberculosis and is absolutely free from abortion, as the number of female offspring will prove—nearly 100 head sired by K. P. B. A. from an original herd of thirty-five head in five years.

Sale held at 10 o'clock, on farm 3 miles west on Yellowstone Trail, **ABERDEEN, S. D.**

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:

AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

Ormsby-Homestead

HEIFERS and BULLS

FOR SALE

Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

A Clean Herd
Under Federal Supervision

MILFORD MEADOWS STOCK FARM
J. C. CORT, Mgr., LAKE MILLS, WIS.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

— PUREBRED —

HOLSTEIN HEIFERS

25 HEAD pure-bred heifers, 2 and 3 years old, bred to a 29-lb. bull. Due in November. Priced right for immediate sale.

RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y., Randolph, Wis.

Buy HOLSTEINS in JEFFERSON CO.

1,000 herds to select from—a reliable breeders' association to buy through—an experienced Holstein man to assist you. Write for complete information.

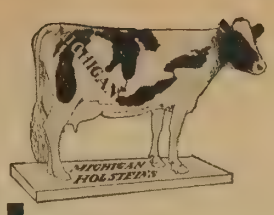
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
T. W. Anthes, Secretary, Jefferson, Wisconsin

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.



Buy Michigan Holsteins



Free Service:—The County Sales Manager will quote you on what you want. He will show you the Holsteins of his county free of charge—whether you buy or not. The state association office will refer your wants to each of these reliable County Sales Managers—there are fourteen of them. Write.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.

L. C. KETZLER, R. 8 Flint, Mich.

2 SERVICEABLE BULLS

One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $150 takes either bull. Herd under Federal supervision.

J. E. BURROUGHS Flint, Mich.

D. D. AITKEN, Flint, Mich.

Breeder of Holstein-Friesian Cattle

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

Why Take Chances

When We Sell Only Proven Producers?

WE OFFER: Copland S S Echo born Feb. 24, 1922. Btr 7d 1 yr. 7 mo. 20.99 milk 410.1. Btr 1st 7 mo. (herd record) 418.31 milk 10,325.8. Net profit $94.95.

Due Feb. 22, 1925 by Sir Dutchland Colantha Denver, dams record 36.25, 1315.15.

PRICE $250.00 F. O. B. Send for picture and pedigree. Herd under Federal supervision.

SERRADELLA FARM, Oscoda, Mich.

Young Bulls

AT FARMERS' PRICES!

I am offering for sale several excellent young bulls at very reasonable prices. They are sired by Ollie Pontiac Segis Piebe, one of the finest individaul sons of Piebe Laura Ollie Homestead King, out of a 1025-lb. daughter of King Segis Pontiac Count, and are out of well bred, good producing dams. These bulls are from a few weeks to twelve months old.

WRITE TODAY IF YOU NEED A BULL

LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

A SHOW BULL

Traverse Echo Sylvia Kaastra No. 343285

Senior sire in the Michigan Reformatory herd. First prize aged bull and grand champion at the West Michigan State Fair in 1924.

Sire: Echo Sylvia King Model, a 36-lb. grandson of May Echo Sylvia. His 42 A. R. O. daughters include a 32.33-lb. Jr. 3-yr.-old.
Dam: A 25-lb. Sr. 3-yr.-old daughter of a 31-lb. cow with a 365-day record of 989.68 lbs. butter and 23,629 lbs. milk.
The Reformatory Herd of 140 head includes 54 A. R. O. cows, 12 from 25 to 31 lbs. butter in 7 days and 8 yearly record cows, one above 1000 lbs.

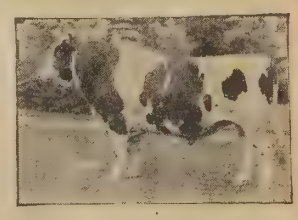
Bull calves by Traverse Echo Sylvia Kaastra from good A. R. O. cows. Send for our list of bulls for sale by Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



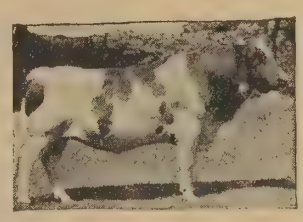
We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

For Sale or Exchange

LORD FAYNE VALDESSA NO. 187263, proven sire. Dam's record seven days 30.61 lbs. Milk 630 lbs. Thirty-day record 125.49 lbs., milk 2,589 lbs. Write

SLIVKA BROS., Plainview, Illinois.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

ORCHARD CREST FARMS, R. D. 3, Schoharie, N. Y.

BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

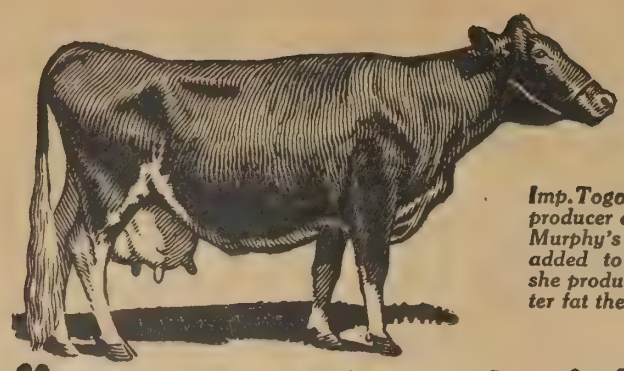
RIVER MEADOW FARMS, Portlandville, N. Y.

High Testing Show Bulls

—ALL AGES—

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD Norwalk, Iowa



Imp. Togo's Ginger. A non-producer at 12 yrs. of age. Murphy's Minerals were added to her ration and she produced 561 lbs. butter fat the next year.

"She was headed for the block as a non-producer"

Don't send that cow to the block! Murphy's Minerals saved thousands of cows last year from being sold as cheap canners.

Minerals are what their systems crave. They are mineral starved from high pressure concentrates and low mineral roughages. They have robbed their own systems to supply the minerals for their calves and milk until nature refuses to do more and a breakdown follows.

Murphy's Mineral Feed acts directly to increase *production*, prevent *goitre* and *depraved appetite*, and reduce *abortion* and *sterility*. It supplies to the animal the proper minerals in a concentrated, highly digestible, perfectly balanced form.

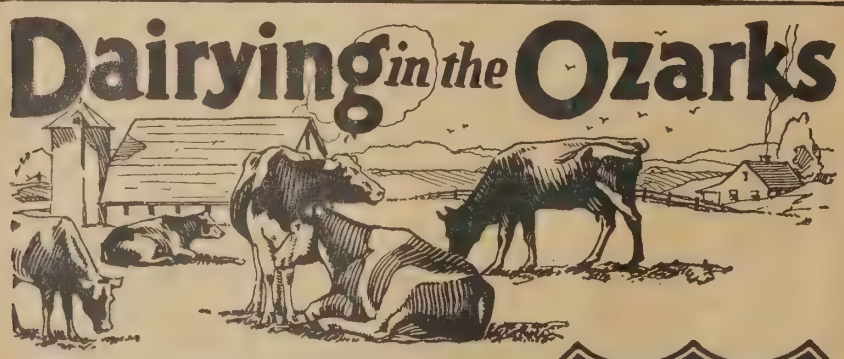
Written Binding Guarantee

Murphy's contains *no* indigestible ingredients—*no* agricultural limestone, *no* rock phosphate, *no* filler, *no* drugs, *no* medicine. It is palatable. With it even healthy herds increase their milk yield sufficient to pay several times its cost.

Murphy's is the only mineral feed sold on a *written, absolute, binding guarantee* of satisfaction or your money refunded. Write for book showing the true value of mineral feeds and how to judge them. It is Free. Simply address: MURPHY PRODUCTS CO., 111 8th St., Delavan, Wis.

MURPHY'S MINERALS

Dairying in the Ozarks



THE Ozark Dairyman prospering with the rapidly growing butter fat production of the Ozarks, has everything his way today. Land, ideally located, is still reasonably priced. Blue grass flourishes, and the grazing season is ten months long. Gentle hills give natural shelter from winter winds—and these winds are further tempered by an average winter temperature of 41.6 degrees. The Ozark summers are as ideal for dairying as the winters—with an average temperature of 78.9 degrees. To top such favorable climatic and grazing conditions, is the advantage of Ozark water—clear, cold, pure—gushing in springs from the hillsides, running in sparkling streams and rivers throughout the Ozark territory.

FRISCO LINES

These conditions are behind the rapid growth of the dairy industry in the Ozarks. They make it possible for a man to start with much less capital, with smaller outlay for animal shelter than would be necessary in the north, and with every opportunity for success. All the forces of nature are in his favor—and efficient railway service provides the outlet for his products.

Hard roads, good schools, progressive, growing communities and the healthful climate make the Ozarks a most desirable homeland. In such surroundings the Ozark Dairyman is a big factor in a growing state. Write me!

J. N. Cornatzar, Pass. Traffic Mgr., Frisco Lines, Room 804, Frisco Bldg., St. Louis, Mo.



Apollo

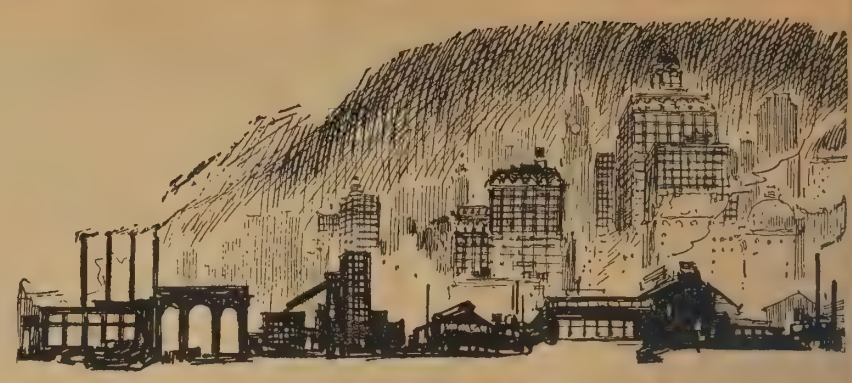
Full weight—Galvanized

Roofing Products

Metal makes the most satisfactory roofing for farm buildings or city construction.

APOLLO-KEYSTONE Copper Steel Galvanized Sheets are unexcelled for Culverts, Tanks, Silos, Roofing, Spouting and all exposed sheet metal work. Look for the Keystone added to brand. Sold by leading dealers. KEYSTONE Copper Steel is also superior for Roofing Tin Plates. Send for "Better Buildings" booklet.

AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.



Lead gives light when darkness comes

BLACK clouds hide the midday sun. A storm breaks over a community. Everywhere people turn on electric lights.

In the emergency the power plant must supply electricity up to capacity. But only two of the generators are running. Where does the additional current come from?

The electrician turns on the current from many storage batteries. These batteries, made mostly of lead, provide the extra current until other generators are started.

Lead storage batteries are an essential part of the nation's life. They provide power for running farm machinery. They furnish electrical energy for ignition systems of tractors; for starting, lighting and ignition systems of automobiles.

Lead storage batteries propel street cars and electric vehicles. They operate drawbridges and railroad signals. They help to fire guns on warships and to propel submarines under the water's surface.

Where lead serves as paint

Lead aids man faithfully and well in the storage battery. Many millions of pounds of lead are in storage batteries in this country.

But lead serves the nation more generally as paint. For protecting metal surfaces against the attacks of rust, red-lead paint has long been the standard. It guards city skyscraper skeletons, bridges, gas tanks. Red-lead should protect your farm machinery and all metal surfaces on your farm equipment against rust.

Rust costs millions

Every year about $600,000,000 worth of machinery, tools and metal implements is made useless by rust. Farmers bear a great deal of this loss—a loss which paint would help to prevent. The harrow that lies half buried in dead weeds out back of the wagon shed; the hay rake that stands next to the fence near the end of the lane that leads to a marsh; the binder that is not under shelter—all these become sacrifices to rust unless protected by paint.

Where farmers keep their metal equipment protected by red-lead paint, that equipment is safe from rust, from rapid deterioration and eventual destruction.

Just as red-lead saves metal so white-lead keeps wood and non-metallic surfaces from rotting away. White-lead has been a standard protective paint for generations. Today you can see it everywhere in city and country. Like red-lead it sticks tightly to the surface, is impervious to air and moisture and lasts long.



Many pages of paint facts

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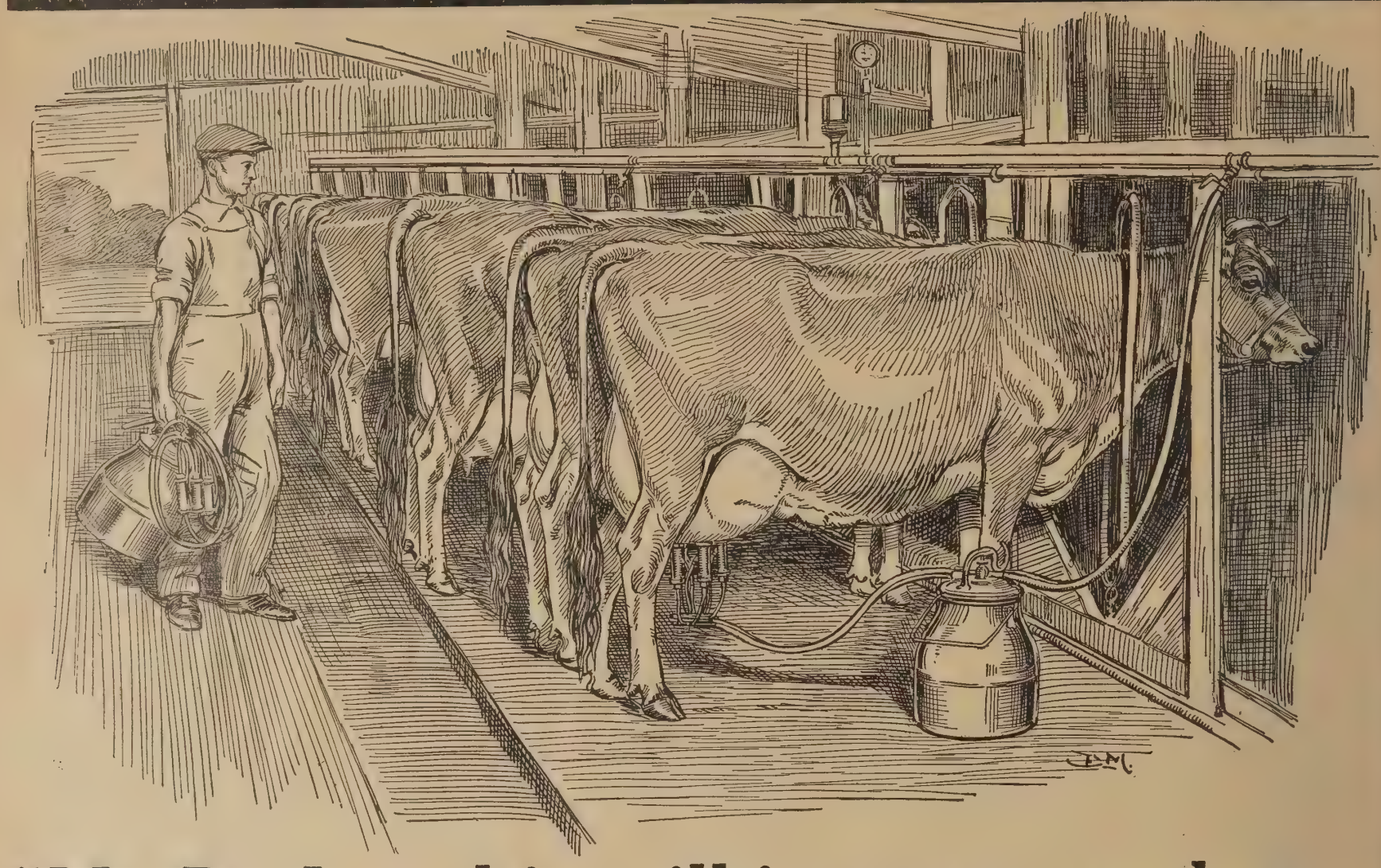
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HOARD'S DAIRYMAN

A WEEKLY [illegible] DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 19 Fort Atkinson, Wisconsin November 21, 1924



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HOARD'S DAIRYMAN

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A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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ABERDEEN MILK PRODUCERS' ASSOCIATION

HARRY J. BOYTS, SOUTH DAKOTA

A UNIFORM demand and a good price for milk has been established by the farmers of the community surrounding Aberdeen, South Dakota, (a city of 17,000) through the organization and operation, for three years, of the Aberdeen Milk Producers' Association. During this time the consumers of Aberdeen have had the cleanest, purest, and most healthful milk in the history of the city.

Our very recent visit to the health office of Aberdeen revealed the fact that this association is supplying the best quality of whole milk. The bacterial count of this milk is universally the lowest of any milk distributed in the city; the pasteurizing is absolutely right and the standard butterfat test runs over the requirements of the state law. The furnishing of a standard milk supply to the consumers has directly made a greatly improved market for the farmers. This is a fine example of a farmer's co-operative marketing association benefiting both the producer and the consumer.

Like many another community improvement that directly or indirectly has been of great benefit—there is a county agent in the story who has taken an unnamed leadership—shouldered all of the mistakes and troubles of the organizers so that there is little room for him to receive credit. W. C. Boardman, county agent of Brown County, has been the active man in this project.

In the fall of 1920, dairymen about Aberdeen began asking the Brown County Farm Bureau to work out a plan to improve the milk market. Finally, the Farm Bureau appointed George Ernst, a member of the board, and County Agent Boardman as a committee to call meetings and develop plans for co-operative marketing of the whole milk supply to the city of Aberdeen. Boardman says, "First, we held a volcanic meeting, at least every one present erupted." Then a milk survey was made which showed that there was less than one pint of milk consumed per capita and about the same of canned milk in Aberdeen. The consumers of milk did not know the value of milk as the quality was poor. The first step then was to educate the people to the value of good, wholesome milk. To do this we staged a milk campaign in December, 1921, with a corps of 12 speakers in charge of Miss Hoover of the Department of Agriculture and including state creamery men, extension dairy specialists, and nurses. We held meetings in every rural and city school in Brown County and every woman's club in Aberdeen. The speakers all talked milk as a food. This was followed by a tour of farm meetings where the care of milk was discussed. To get back to the marketing work—we studied the Twin City Milk Producers' plan of controlling the sale of wholesale milk. Later we held about eight meetings. The result was that the pool system, with a three-year contract, was evolved. For about a month milk was sold at wholesale to dealers, but lack of co-operation made it necessary to change the plans. Besides, an experienced manager was discharged and a cheaper man, lacking experience, was hired.

"The Aberdeen Milk Producers' Association then started its own bottling plant and retail business in Aberdeen. McDairmid—Slater Co., the largest retail grocery store in the city, and others have always sold the association milk because it is a quality product, and this has greatly aided in putting over the project.

"George Ernst, secretary, and E. E. Webb, president of the association, have stayed by the ship and the results have been mighty worth while."



ONE OF THE TRUCKS USED BY THE ABERDEEN MILK PRODUCERS' ASSOCIATION

About a year ago the city of Aberdeen began to enforce the milk ordinance which requires the delivery of high quality milk. The Milk Producers' Association has co-operated to the fullest degree with the health office in Aberdeen to furnish good, wholesome milk.

The new manager, G. A. Lee, an experienced milk man, says: "We are preparing the best product we can, but the biggest job we have is to educate the people to use the best product."

Every herd of dairy cows furnishing milk to this association has been tuberculin tested. In fact, every herd supplying milk to Aberdeen has to have this test in order to comply with the city ordinance and this law is being enforced. This movement has started a program to test every herd of cattle for T. B. in Brown County. The 35 farmer members have over 800 cows, which supplied more than 5,000 lbs. of clean milk, daily, to the consumers in Aberdeen during 1923 and returned a total of $74,770.00.

An up-to-date plant for handling the milk in Aberdeen has finally been equipped. The whole milk is received every morning. First it is passed through two thicknesses of muslin, then into enclosed vats, where it is heated to a temperature of 148 degrees to 150 degrees F. for a period of 30 minutes. The temperature of the milk is then dropped to 70 degrees F. in 20 minutes. The record of the temperature is registered by an automatic thermometer, so there is no guesswork about this. The milk is then passed over coils of cold water and finally over coils of cold brine, where it is cooled to 40 degrees F. From this the milk flows into an automatic bottler, where the bottles are filled, then to an automatic capper. No human hands touch the milk or inside of the containers. The milk is stored in refrigerators until delivered the next day. Every milk container and tube is thoroughly washed and sterilized with a live steam. This is one factory you can visit and then greatly appreciate the use of the product in your own home.

This is a fine example of co-operative marketing, where the results have been of great benefit to both the producers and the consumers. The farmers have benefited by:

1. Having a uniform market for whole milk at all times.

2. Having distributing costs lowered; for example, April 26th the consumers' price was reduced 20 per cent while the farmer's price was reduced only 9 per cent.

3. Getting the cost of production uniformly before the consumers.

4. Standardizing their product.

While the consumers have benefited:

1. By receiving the highest quality of milk ever sold in the city.

2. By having to pay a reasonable price for milk.

3. By having a dependable supply of good milk at all times.

4. By having a standardized product on the market.

Balanced Ration Best For Calves

Tests Show Self-feeder Method Not Satisfactory

HOARD'S DAIRYMAN:—That the self-feeder method of feeding calves is not profitable nor advisable because calves do not select balanced rations from the self-feeder but had a tendency to select the more palatable grains which produced fat rather than growth, is the general conclusion to be drawn from recent tests conducted by the South Carolina Experiment Station at Clemson College, S. C.

In these tests, conducted to determine the value of self-feeding as a method of feeding calves, three calves were allowed free access to self feeders, which contained in separate compartments: shelled corn, wheat bran, linseed meal, whole oats, corn meal, ground oats, velvet bean meal, bone meal, salt, and ground limestone. Three other calves were fed a balanced grain ration composed of 100 pounds corn meal, 100 pounds ground oats, 100 pounds wheat bran, 50 pounds linseed meal, and 3½ pounds salt. A ration of skimmilk and hay was given to all calves in the test.

Feeding Test Results

1. The calves given their choice between whole oats and whole corn and these same grains ground, selected the whole grains.

2. The calves fed by the self-feeder method made faster gains in weight than those fed the calf mixture. However, the calves fed the calf mixture grew faster in height, showing that the self-feeder calves tend to fatten rather than grow as did the calves which were fed a balanced ration.

3. Although the calves on self-feeder gained more rapidly in weight, these gains were also more expensive, because the calves on self-feeder consumed more feed but did not get a balanced ration.

4. The cost per pound of gain on the self-feeder calves was 12.4 cents, while the cost per pound of gain for calves fed on calf mixture was 10.4 cents.

5. The cost per inch of gain in height on self-feeder calves was $7.40, while calves on calf mixture the cost per inch was $3.20.

This experiment shows the importance of feeding young animals a balanced ration to keep them in good growing condition.

South Carolina. A. B. BRYAN.

THE WHATCOM PLAN OF TESTING

LINCOLN R. LOUNSBURY, WASHINGTON

TESTING associations have come and testing associations have gone, but we are still looking for a plan which will better deliver the goods. Each dairy state has come forth with some new plan or addition to an old one. The real test applied to my association is: "What does it cost the dairyman; does it help his business and is he sufficiently satisfied to sign the dotted line for another year."

Whatcom County, Washington, has a plan which has met those three requirements for the first year. The 165 members, owning 1,725 cows, paid out only $1.25 a year per cow for testing. They saved $3.00 per ton on each ton of feed used because of feeding balanced rations, and 1,500 of the 1,725 cows were signed up for another year at the annual meeting without special effort.

This association does not pretend to cure all ills, but it is working on a different basis and has completed volume one of its reports. What plan did they adopt? Well, they took the best features of the regular old line organization with some of the ideas of the testing circle or individual testing club, plus suggestions made by Dr. S. B. Nelson, director of the extension service of the State College of Washington.

To get at the beginning, in the state of Washington we have been using old type associations for a number of years. To A. B. Nystrom, now with the U. S. Department of Agriculture, who was formerly county agent in Lewis County, will have to be given the credit of "kicking over the traces". In 1918 he organized an individual testing association where the dairymen paid one dollar for membership fee in the "cooperative cow testing association" and 75 cents per cow per year tested.

In this association the dairymen purchased their outfits of scales, dipper, sample jars, and sample box for $4.30 and sent the samples into the county agent's office once each month. One hundred and ninety-two cows were tested during the first year and at the end Mr. Nystrom reported: "The writer is not ready to pronounce it a perfect success or is he ready to call it a failure."

This type of association spread to the counties of Island, Mason, Jefferson, San Juan, and others during the first year. There are still some six or eight such circles testing, but the bad feature of it was that if other farm work became too heavy the testing was forgotten. This bad feature was overcome in Island County by R. M. Turner, then county agent but now assistant director of extension service. Mr. Turner would deliver the sample bottles each month on the day before testing so the farmers would be reminded of their test and these bottles would be sent in the next day on the cream truck.

Whatcom County dairymen wanted some method of testing, but did not want the individual or regular association form. Director S. B. Nelson, of the extension service, together with County Agent H. B. Carrol, Jr., Don G. Magruder, and Frank Kehrlie, extension dairy specialists, got together and worked out a new method.

They took the part relative to the testing outfit and securing samples by the farmers, from the individual plan, put teeth into it by designating that the tester shall tell each member when to take the milkings for samples. This was where the Island County plan had been successful over the others.

From the old association plan they took the tester, but that is where they quit. They secured Guy C. Anderson, a graduate of the State College of Washington who had considerable knowledge about dairying, together with a lot of actual experience. His position with the association was a dual one, for to the dairymen for three weeks of the month he is the "tester", but to the extension service of the State College of Washington, he is for one week, "assistant county agent of Whatcom County". This comes about because the extension service is paying him for that week's work as an extension worker.

Many testing associations have gone on for years with nearly a new list of herds each year, held annual meetings and made reports but the testing has not been analyzed. Here is where they departed again from the usual type, for those records made last year were analyzed each month, Ninety-five per cent of the members adopted the plan of feeding rations, balanced for them by the "assistant county agent". Boarder cows were reduced in number by 104 during the year. By learning how to mix their own feed $3.00 per ton was saved in feed. Ten dairymen have agreed to buy better herd sires; improvements in the sanitation of five barns and five cream separators tested resulting in leaks stopped which were causing loss of from $2.50 to $25.00 per month.

The dairymen who belong to the association are receiving the aid of an assistant county agent who is a specialist in dairying as well as a tester to test their cows.

That one man can handle 1,725 cows and give their owners individual service sounds difficult, but the plan which we call the "Whatcom plan" may be explained as follows:

The county is laid out in ten routes with an average of 172 cows, owned by 16 members of the association per route. The tester makes two trips each month to the farms of the members, distributing and collecting sample bottles. To illustrate the method used, let us take the case of I. B. Larson who lives on one of the ten routes. Tuesday is the day set to collect samples on his route. The tester, Mr. Anderson, visits Mr. Larson Monday morning and delivers to him sample bottles so that he may take samples from Monday night and Tuesday morning's milkings.

At the time of the delivery of the sample bottles the tester takes up with Mr. Larson the record of his herd, made the previous month, and makes any suggestions for betterment that may appear from the record kept. If there is nothing to be taken up on dairy management problems, then it is not necessary to locate Larson, but merely leave the bottles.

Should the tester be unable to find Larson at home, or locate him on his trip of delivering bottles on Mon-

(Continued on page 590)

Testers' Judging Contest

B. ODERKIRK, IOWA

THIRTY-TWO testers from Iowa cow testing associations took part in the first testers' judging contest at the Dairy Cattle Congress.

Interest in the contest was intense because Mr. E. S. Estel, manager of the Dairy Cattle Congress, had offered gold, silver, and bronze medals to the three high ranking men respectively. The number of contestants would have been increased greatly had it been possible to hold the contest other than the last day of the show.

F. E. Ferguson and Floyd Johnston of the State Dairy Association ably served as judges and graded the contestants on the oral reasons given on their placings.

The rank of the ten high men and the prizes awarded were as follows:

First, C. H. Hostetler of the Dallas County Association, gold medal, watch fob; second, Chas. J. Moore of Linn County No. 2 Association, silver medal, watch fob; third, Herman Christiansen of Polk County Association, bronze medal, fob; fourth, Niel Nielson, Hardin County Association; fifth, Oliver Constable, Jefferson County Association; Sixth, Alvin Parsons, Belmond Association, Wright County; seventh, Joseph Day, Floyd County Association; eighth, Chas. M. Deem, Des Moines County Association; ninth, S. A. Mathre, Mason City Association; tenth, Thos. E. Hotchkiss, Davenport Association, and R. C. Munkwitz, Pioneer Association.

Cow testing associations can only be as strong as the men supervising them in daily contact with the members. It is often said that a man is judged by his accomplishments other than those he is paid for and expected to do. To a great extent this is true of the association tester. In selecting men for cow test associations it is the policy of those in charge to avoid hiring "mechanical testers" with a "get by" attitude and little interest other than in their salary checks.

It is interesting to note that the ten high men in the judging contest are highly trained for their jobs. Every man hired must have practical experience on a good dairy farm.

Of the ten high ranking men in the testers' judging contest is a graduate of Illinois University and one of the University of Wisconsin, a four-year graduate of Iowa State College, a senior student at Manitoba Agricultural College, Canada, two veteran testers with three years' experience and educated in Europe, one graduate of a short course in dairying at the University of Minnesota, and the others have completed the herdsman's short course or two-year agricultural course at Iowa State College.

The following shows some of the additional voluntary service rendered by testers.

R. C. Munkwitz, tester of the Pioneer Association, made a good showing in feeding improvement in his association, kept a very neat and accurate set of books, coached a junior club judging team and a demonstration team which won third place at the National Dairy Show in competition with teams from other states. He also conducted an association tour in September and had a picnic in June.

Many of the testers are calf club leaders in their communities. Several testers have made a notable increase in the amount of home-grown legume crops by testing soil for acidity and encouraging the use of lime.

One tester has considerable ability at culling chickens as well as cows. As a result he has been in constant demand by the women of the community who realize that their flocks are not paying. This tester culled 150 hens from one flock and the owner only received five eggs from the culls in the next four days.

We find testers assisting members in fitting cattle for the show ring, by clipping, polishing horns, trimming hoofs, teaching new breeders the essential points of the show ring, and assisting in other ways.

Several testers brought calf club calves to the Dairy Cattle Congress and assisted the club members in fitting. Throughout the state we find the testers taking an active part in the progressive movements for better live stock.

There is a great future for developing the annual dairy cattle judging contest. Other states have signified an interest in sending contestants to Waterloo another year.

An efficiency contest for testers has been started for the coming year. A gold watch will be awarded to the winner. Testers will be graded upon their aggressiveness, general improvement on the farms as a result of their efforts, scrub bulls replaced, the annual association tour and picnic, neatness and accuracy of records, and promptness in mailing in reports to the Extension Service. To avoid rivalry and any temptation to use uneconomical practices in making high association production averages, very little regard in the efficiency contest will be given to production of the herds.



TESTERS FOR IOWA COW TESTING ASSOCIATIONS COMPARING DAIRY COW FORM IN THE FIRST JUDGING CONTEST OF THIS KIND AT THE DAIRY CATTLE CONGRESS

Willie: I wonder if Dad thinks the calf is goin' to die.

Mother: Why, Willie?

Willie: Well, he said I could have it to start a herd.

Gladstone said, "One demonstration is worth a thousand arguments."

Highest Farm Labor Income

E. M. CLARK, OHIO

WAYNE County, Ohio, is one of the many good Holstein and general farming communities in the state. In fact the farm accounts kept by the Rural Economics Department of the Ohio State University show that the farm labor income was highest in Wayne County for 1923 of all the various counties in which accounts are kept.



MR. SNODDY WITH ONE OF HIS A. R. O. COWS

It was cows like this one that made it possible for Mr. Snoddy to receive the largest farm labor income in Ohio for 1923.

Mr. A. V. Snoddy of Wayne County, had the largest labor income in 1923 of all the farmers who kept farm accounts with the Ohio State University. And Mr. Snoddy has attained this success by dairying with a Holstein herd of cattle. It might be well to explain just what is meant by farm labor income. The university keeps accurate account of all items of expense and income as well as cost accounts on the various farm crops and the different classes of live stock. By so doing the exact cost of production of the crops and the efficiency of the live stock is determined. At the beginning of the year and at the end of the year a very careful inventory is taken. This inventory taken into consideration with the items of expense and the items of income determine the farm income for the year. By deducting the interest on the investment from the farm income the farm labor income is derived.

It is too often thought that one has to have a large farm to make a large labor income. Such is not necessarily the case as proved by Mr. Snoddy's farm of 76 acres, 63 of which are tillable. Mr. Snoddy's system of farming is as follows: He has his farm divided into five fields, two of which are kept in a two-year rotation of wheat and potatoes, and upon the other three fields a rotation of corn, wheat, and clover is maintained. His cash crops are milk, wheat, and potatoes, milk being the largest source of income. The manure from his dairy herd, together with the application of limestone and other purchased fertilizers, keeps the farm very fertile. Last year Mr. Snoddy's potatoes averaged 245 bushels per acre and his wheat 36 bushels per acre. The farm furnishes all the silage, clover hay, and corn for grain that his live stock demand.



A. V. SNODDY OF OHIO AND TWO OF HIS SONS. BOTH OF THESE BOYS ARE MEMBERS OF THE WAYNE COUNTY HOLSTEIN CALF CLUB

Mr. Snoddy's labor income for last year was $3,092. Naturally his Holstein herd contributed most to this splendid income. His herd at present is composed of 19 head, all of which are registered. A few years ago Mr. Snoddy started with a herd of grade Holsteins, but he has been gradually replacing them with registered cattle. The source of income from the herd in the past has been almost entirely from the sale of milk. However, from now on he should have an added source of income from the herd in the sale of breeding stock. The herd sire used by Mr. Snoddy is out of a cow that Dr. B. Studer sold in the last State Holstein Sale to R. E. Ansted. She was fresh before the sale and made 29.29 pounds of butter and 621 pounds milk in seven days and she is now on yearly test and bids fair to make over a thousand pounds butter. This cow is sired by Risinghurst Johanna Ormsby De Kol who has 32 A. R. O. daughters. Mr. Snoddy's bull is sired by Champion Model Johanna, thus carrying three crosses to the Risinghurst bull. Several of the cows in the herd have seven-day records up to 28 pounds. Last year the milk sales amounted to $3,500 from 15 milking animals which included four 2-year-olds and three 3-year-olds. The herd is accredited.

Mr. Snoddy was formerly a renter before buying this farm. He has a family of seven children, the two older boys being members of a Holstein calf club. Mr. Snoddy's idea of successful farming is not how many acres or how many cows, but how many good acres and cows. Get the best and work them to the limit of their economical production.



THE DAIRY BARN ON MR. SNODDY'S SUCCESSFUL 76-ACRE FARM IN OHIO

Fighting Thistles With Alfalfa

H. W. WARNER, Iowa College of Agriculture

HAVING the herd in a cow testing association shows business sagacity. Growing alfalfa for the herd forecasts a profit-making ration. But having the high herd and the high cow in the test association for June, 1924—with grade Shorthorns, at that—is real achievement.

The herd that lead its league, the Big Four Cow Test Association, and the leading "hitter" of the league belongs to A. W. Oxley of Winneshiek County, Iowa.

Although living some 200 miles from Mr. Oxley's farm I had several times heard "Oxley's Shorthorn cows and his alfalfa" mentioned in a very commendable way. When County Agent C. W. Dack of that county organized an "Alfalfa Tour" I was more than willing to be present, for the windup station on the tour was Oxley's farm.

What I found was a modest farm home, a fair silo, some average barns and outbuildings, a "flivver" and—grade cows. Just the same kind of buildings and equipment that one would find on the average live stock farm in that corner of Iowa and all serving to demonstrate that heavy investments for equipment are at least secondary to good feeding and management in the profitable conduct of a dairy herd.

Thirty or forty of us followed him across an 11-acre field from which 30 loads of alfalfa hay had been taken only three weeks before, an average of 2¾ loads per acre. The next crop was already 16 to 20 inches high and of excellent color and quality.

Arriving at the edge of an oat-stubble field we stopped suddenly. Our advance was blocked by a 100 per cent stand of Canada thistles grown well above the stubble and presenting an ugly picture in contrast with the alfalfa field we had just crossed.

Down among the stubbles could be seen a healthy looking stand of young alfalfa plants despite the barbed-wire entanglements of thistle all about.

"Don't reckon you'll have much alfalfa here, will you, Oxley?" someone asked.

"Plenty of it but it's going to be hard on the thistles. I put alfalfa here to kill out this patch of Canada thistles as much as for anything else. Just about a year from now you won't find a live thistle in this alfalfa seeding unless something happens to the seeding this winter."

Some of the alfalfa "tourists" accepted Oxley's statement at face value. I'm not sure but that I was one of several in the party who wanted further demonstration.

Oxley seemed to sense the situation and was ready for it.

"Now take a good look at this thistle patch and then come with me while I show you what there is left of one I had last year that was just as bad as this."

He took us to a place in another alfalfa field of 10 or more acres where the year before Canada thistles had reigned unchecked. Diligent searching for 10 minutes by almost the entire group brought to light two sickly looking and badly beaten thistle plants. Further proof was not needed to convince everyone that, however beneficial to soils and live stock, alfalfa is not conducive to the greatest success with Canada thistles.

"It has taken me 20 years to learn how to grow alfalfa that will whip thistles and make 4 or 5 tons of hay to the acre, but with what we know now of liming and inoculation there's no reason for failure with alfalfa if it's put in right."

The next and final stop was in a 7½-acre pasture near the barns where there appeared to be enough cows grazing for twice or three times that acreage.

These 7½ acres had furnished abundant pasturage for 15 milch cows, 4 other animals, and 40 or 50 hogs since spring. And we were then wading in a dense 8-inch growth of bluegrass and alfalfa.

"The cream check for May from this alfalfa-bluegrass pasture was $161 besides all other stock I had on it. I figure it made me better than $20 an acre for that one month, for it's all the cows had to eat."

Mr. Oxley didn't advance this as any argument against more varied and better balanced rations. He did make the statement, however, as first hand experience and convincing testimony to the value of alfalfa for milk production.

"How did you get so much alfalfa in this bluegrass pasture?" they asked.

But that wasn't the way it happened—the alfalfa was there first. About 7 years ago Mr. Oxley had seeded the piece to alfalfa and for several years had maintained it as permanent meadow, pasturing it at times. The bluegrass had crept in until it was about a 50-50 alfalfa and bluegrass mixture.

A very noticeable thing in this pasture was the dark color of the bluegrass—it was actually blue, not green. The liming of the soil and the fertilizing effect of the alfalfa were being reflected in the grass.

Mr. Oxley has good reasons for being enthusiastic about alfalfa. It has enabled him to get rid of one of the most troublesome and pernicious weeds found anywhere, which is no small thing. It has made possible the economical production of butterfat, which is more important. In 1923 for every dollar's worth of feed consumed by his cows he received $2.02 worth of butterfat. Then, too, it has proven dependable when bluegrass and other forage crops have failed. Last year, 1923, northeast Iowa suffered from a very severe drought. Pastures dried up almost entirely during August and the herds in this cow test association lost an average of about 10 pounds in butterfat production. Oxley's lost only 2 pounds during that month.

Whatever may be said for or against dual-purpose cows there seems to be but one side to the question of alfalfa as a dual-purpose crop. On this farm it has demonstrated its dual-purpose as milk-maker and weed-eradicator, not to mention its soil building qualities.

Six Years of Record Keeping on a New England Dairy Farm

JOHN J. ELLIS, MASSACHUSETTS

SOME time ago in an article published in Hoard's Dairyman I made the statement that I believed that dairy farmers should not be too strongly urged to feed more grain than many of them were doing in order to increase the average milk production per cow. My reason was that I thought the average good dairyman knew about the point of intensity of production that paid him best. At that time I thought the point of profitable milk production was not much above 7,000 pounds per cow when average milk and feed prices were considered. Since writing that article I have completed the compilation of some figures based on the records of a Holstein herd for the past six years. These figures seem to show that a herd of good Holstein cows can be fed grain heavily enough to raise the average to between 9,000 and 10,000 pounds of milk per cow at a good profit over feed cost. At the same time they show that when fed more heavily than this the profit steadily falls even though the milk production increases. Perhaps many dairymen will be shocked at the thought of feeding over a ton of grain to each cow in a year but it has proved profitable.

These records extend over a period of six years, from 1918 to 1923 inclusive, during which time the average number of cows in the herd was 13.3. The records are for calendar years, that is from January 1st to December 31st, and they include all dry cows but no young stock. The highest production made by any one cow during the time covered by the records was 17,636.9 pounds of milk and 663.76 pounds fat made in ten months, the cow being milked only twice a day after the first 45 days. The make-up of the herd has changed from time to time but over 50% of the original cows remained in the herd during the whole period of the records. The figures clearly show that the average quality has greatly improved, due to eliminating poor producers, but that does not invalidate the conclusions that can be deduced from these figures.

Prices paid for grain and received for milk each year are given in Table I. I include in this table figures showing the relation between the price of milk per 100 pounds and the cost of grain per 100 pounds as it is interesting to note how closely these prices conform each year except 1918 and 1919. It is evident that there is some relationship between the two but any one able to tell if the grain price follows the milk price or the contrary, would be able to answer the old question as to which was made first, the hen or the egg. However, it seems safe to say that the farmer in this locality can expect to pay an average of 82.7 cents per 100 for his grain for each $1 per hundred he gets for his milk.

Table I—Prices Paid for Grain and Received for Milk

	1918	1919	1920	1921	1922	1923	Ave. 6 yrs.
Milk per 100	$3.90	$4.10	$3.90	$3.00	$2.80	$2.82	$3.42
Grain per 100	2.46	4.23	3.38	2.57	2.04	2.32	2.83
Per cent of grain cost to price of milk	63.0	103.1	86.6	85.6	72.8	82.2	82.7

In Table II is given the milk production for each year, pounds of grain fed per cow, etc.

This table shows that the highest milk production per cow was in 1923 when the average was 11,987 pounds and also that the largest amount of grain fed per cow was in the same year. The year 1918 shows the largest returns for each pound of grain fed as the ratio for that year was 1 pound of grain for each 6.13 pounds of milk produced. The lowest return was in 1923 when only 2.52 pounds of milk were produced for each pound of grain fed.

Table II—Milk Production and Grain Consumed

	1918	1919	1920	1921	1922	1923
Ave. production milk per cow in lbs.	6,515	6,312	8,587	10,313	11,607	11,987
Grain fed per cow in lbs.	1,063	1,288	1,719	2,374	4,231	4,795
Ratio grain to milk in lbs.	1—6.13	1—4.88	1—4.99	1—4.34	1—2.74	1—2.52
Spread in lbs.	5,452	5,024	6,868	7,939	7,376	7,192
Ave. number of cows	12.7	12.0	14.0	11.4	13.1	16.7

At first thought it would seem that the year 1918 returned the largest profit over grain cost and 1923 the lowest profit, but this is really not the case. In order to show this I have included in Table II figures for each year, which, for want of a better term, I have called "spread". This spread is the difference in pounds between the pounds of grain fed and the pounds of milk produced. For example, in the year 1918, 6,515 pounds of milk were produced and 1,063 pounds of grain fed per cow. The difference between these two amounts is 5,452 which is the spread in pounds for that year. When this spread is noted for each year we find that it was largest in 1921. In that year the return for each pound of grain fed was only 4.34 pounds of mlik but in spite of this the largest spread was in this year and not in 1918 when the return for each pound of grain fed was 6.13 pounds of milk. It will also be noted that with each increase in grain fed the return or spread increases until the ratio is 1 pound of grain for each 4.34 pounds of milk but beyond that point the spread decreases as shown in the years 1922 and 1923. In these last two years the ratio of grain fed was 1 to 2.74 and 1 to 2.52 but even then the return or spread was greater in these years than in the earlier years when the ratio ran as high as 1 pound of grain to 6.13 pounds of milk.

This would seem to indicate that the danger of financial loss from overfeeding grain is not very great provided the health of the cow is not injured. In fact it looks as if a cow is not at the point of greatest profit until she produces from four to four and one-half pounds of milk for each pound of grain and also that she is not at the point of greatest profit when producing at a ratio much higher or lower than that. I do not mean that cows should always be fed at a ratio of 1 to 4 or 1 to 4½, because a fresh cow would not get enough grain and one well along in lactation would get too much. I simply mean that in this herd when a cow produces an average of 1 to 4½ pounds of milk a year for each pound of grain consumed she seems to be at the point of greatest profit and that these figures seem to show that it is more profitable to overfeed than to underfeed.

To show more clearly the effect of the above figures the value of milk per cow, value of grain and gain over grain cost has been worked out for each year in Table III. In order to make a fair comparison the average prices of milk and grain for the six years have been used, that is grain at $2.83 per 100 and milk at $3.42 per 100. This gives a milk price higher than can be expected in these days but does not invalidate the figures in any way.

The cost of hay, silage, and other roughages has not been included in Table III as the object is to concentrate attention on the fact that it is possible to feed grain much more heavily than is usual and still make increased profits per cow. In the year 1918 when 1,063 pounds of grain were fed, the gain over grain cost was $192.73 per cow while in 1921 the gain per cow reached its highest point, $285.42, when the cost of grain was $67.28. It is interesting to note that when the cost of grain per cow rose to the high point of $135.70, as it did in 1923, the gain per cow was still higher than it was in the first three years when the grain cost was less than one-third as much.

Table III—Value of Milk per Cow at $3.42 a Hundred and Cost of Feed at $2.83 a Hundred

	1918	1919	1920	1921	1922	1923
Value of milk	$222.81	$215.87	$293.68	$352.70	$396.96	$409.82
Cost of grain	30.08	36.45	48.65	67.28	119.74	135.70
Gain over cost of grain	$192.73	$179.42	$245.03	$285.42	$277.22	$274.12

Another point that is frequently overlooked is the fertilizer value of these feeds. Dairy farmers who are in the habit of buying mixed fertilizers would put money in their pockets if they would buy more concentrates to feed and less chemical fertilizer as they would get two profits, one as feed and one as fertilizer. This farm was in a badly run-down condition seven years ago when the policy of heavy grain feeding was started and today it produces an average of 2½ tons of timothy hay per acre and other crops in proportion. This has been brought about by the use of rich manure reinforced with a little acid phosphate. Less than one ton of mixed fertilizer has been bought in the seven years.

In Table IV is given the return per cow for each of the six years based on the actual prices received and paid for those years. It is here seen that the highest return above grain cost was $276.79 per cow in the year 1920 when the average production per cow was 8,587 pounds of milk. As we have already seen that with the average prices for six years the highest return was in 1921 with an average production of 10,313 pounds it at once becomes evident that the highest profitable herd production is somewhere between 8,587 and 10,313 pounds. When the spread in Table II and the gain in Table III is examined it seems probable that the most profitable production is very close to 10,000 pounds per cow.

To sum up these figures it looks as if a dairyman owning heavy milking cows should feed enough grain to get an average production of close to 10,000 pounds. Table III clearly shows that he is not making full profit per cow below that point and that it is doubtful if it is good judgment to try to force the herd average much above that point, although there seems to be less danger of loss from overfeeding than is likely to come from underfeeding.

Before closing it is perhaps well to give some idea as to the methods of feeding used in this herd. The roughage was corn silage and mixed clover and timothy hay, as it has not yet been possible to grow alfalfa. The cows have rather poor pasture for about five months during which time they are fed soiling crops such as sudan grass or green oats and sometimes silage and hay if the pasture is short. They are also fed grain in nearly the same amounts as in winter. All the grain is purchased, as it costs much less to buy it than it does to raise it on the farm. The reason for the great increase in grain fed in 1922 and 1923 was that over half the cows were on yearly semi-official test, during which time they were fed to the limit of production without regard to cost.

It is to be regretted that in none of these years was alfalfa used as the hay part of the ration, as it would be interesting to note whether or not its use would make it possible to reduce the amount of grain fed without reducing the milk production. However, it is hoped that enough alfalfa will be raised to feed a part of the herd for the next two years.

Table IV—Value of Milk per Cow and Cost of Feed According to Prices Prevailing Each Year

	1918	1919	1920	1921	1922	1923
Value of milk	$254.09	$258.79	$334.89	$309.39	$325.00	$338.03
Cost of grain	26.15	54.82	58.10	61.01	86.31	111.24
Gain per cow	$227.94	$203.97	$276.79	$248.38	$238.69	$226.79



KATE OF FARVIEW

H. H. Buckley of New York, the owner of Cathedral Farms, owns a new Guernsey class leader. The cow is Kate of Farview and her excellent record in class B consisting of 19,227.8 pounds of milk and 905.65 pounds of butterfat gives her fourth place in that class. On October 21, 1922, Kate of Farview started her test at the age of four years, ten months, and eleven days and she reached her maximum flow of milk, 60.5 pounds, in six weeks. Her persistency as a milker is demonstrated by the fact that she maintained a milk production of over fifty pounds daily for the first ten months of her record. During July which was her ninth month, she averaged fifty-seven pounds of milk per day and she finished her year still producing 40.9 pounds of milk.

Kate of Farview now holds the world's record in the Guernsey breed for milk production under the age of five years. She also has a class D record of 12,760.1 pounds milk and 620.32 pounds fat.—The American Guernsey Cattle Club.

Friendly Talks for Farm Folks

The Holstein breed is marketing its milk under the *nom de plume* of "White Nectar". We suggest, gratis, that Guernsey milk be called "Yellow Delight"; that Jersey become "Cream of the Cow"; that Ayrshire be known as "Good Health's Food", and any other also-running milk always spelled with a capital "M" because it is so important in the human diet. Personally, we think this idea of advertising milk is clever and interesting, and it all serves to draw attention to any kind of milk and so helps in focusing the lime-light on this greatest of foods. If we can only get folks to talking about milk and speculating as to whether Holstein or Guernsey or Ayrshire is the best, the result will be to increase consumption of each family's or person's favorite, and to encourage a study of this food which merits much more than the taken-for-granted attitude and perfunctory interest hitherto displayed. A great many people view all milk as "milk", whereas the fluid from the different breeds is as unlike as brands of fruit and vegetables put out by different companies. Each breed specializes, and in this age of specialization, Americans should take kindly to the new advertising wherein the merits of each fluid is brought to light. We are all anxious—Guernsey, Holstein, or Jersey man—to increase the consumption of milk, and this writer for one believes that any means to that end is a step in the right direction. When consumers understand that there is a vast and interesting difference in the milk delivered to them daily, we believe the resulting talk and study will increase instead of decrease consumption. Milk can afford to be picked apart and analyzed to the last degree—it has nothing to hide, no matter from what breed of cow, if sanitarily produced. And the average drinker is going to find more romance and imagination in his glass of "White Nectar" and so on than in a glass of just milk.

John Charles Fremont explored the good state of Ohio ninety years ago. Wait a minute! Can it be possible that Ohio is as young as all that, not to mention the mighty states beyond her borders? What a flapper among nations is this America, at best!

The newspapers print a story that some professor of science over in Berlin is making gold from quicksilver. While no doubt of vast importance, the average American dairyman is more interested in the possibility of making some gold out of milk in the dim future—if he doesn't die first.

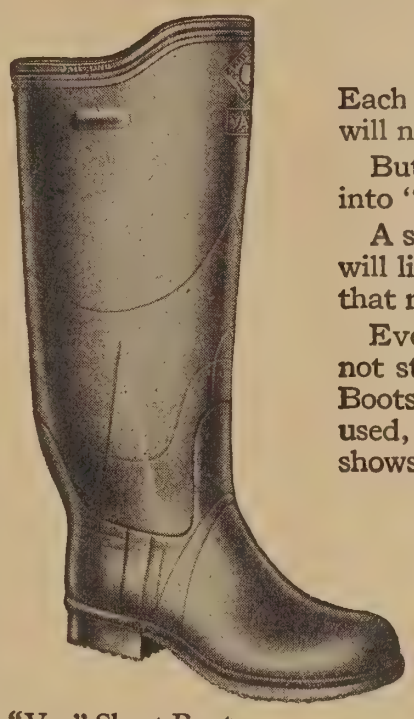
If the kids in this country can't be made to work as per the proposed law, we will see, if it is enacted, a disregard for the order which will make the flouting of the prohibition act fade into insignificance. Wise parents would simply ignore any such amendment and public opinion would uphold them. Why make laws which are made to be outlawed?

Sim Rathbun is always complaining of appendicitis pains through the summer, and being awful careful of his eating; but just as sure as the first cold days come with a touch of snow and ice, Sim's appendix calls loudly for buckwheat cakes and maple syrup and hot, sugar-coated doughnuts. Then you never hear anything about pains below the belt until next summer.

New York. HELEN S. K. WILLCOX.

It Takes 30 People to Make Each "Ball-Band" Boot

—and every one of them does his work by hand



"Vac" Short Boot
Feels like velvet
Wears like iron

Each one of these 30 workmen has to do his best or the work will not pass inspection.

But it is more than fine workmanship that puts the wear into "Ball-Band" Footwear.

A strip of "Ball-Band" Boot Sole Rubber an inch square will lift hundreds of pounds, but it is more than tough soles that make them wear.

Ever stop to think that boots and rubbers more often than not start to wear out at the lining? In such footwear as Boots and Light Weight Rubbers, where cotton linings are used, they are so thoroughly impregnated with rubber that it shows through—you can see it—look at it. But that is only one other reason for the promise of the good old Red Ball—the promise of More Days Wear.

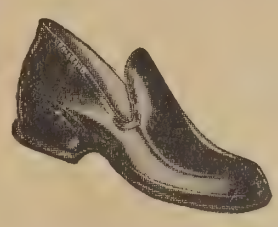
Over Ten Million People have stopped asking the reasons. They *buy* "Ball-Band." They know that whatever is good in rubber footwear must be in "Ball-Band" because "Ball-Band" delivers the service.



One-Buckle Cloth Arctic
Sturdy, warm and well fitting

Look for the RED BALL

Look for the Red Ball. It is on every pair of "Ball-Band" Rubber and Woolen Footwear. If your dealer does not handle "Ball-Band" write for dealer's name and the free booklet, "More Days Wear." It shows many kinds of Boots, Arctics, Light Rubbers, Work Shoes, Sport Shoes, Wool Boots and Socks—something for every member of the family.



Women's Argo Slipper
Neat and attractive

You don't ask your friend if he is honest—you know that he is. You have tested him and he is true.

That is why "Ball-Band" has more than ten million friends. When you buy "Ball-Band" (Red Ball) you buy with confidence—you belong to the more than ten million who are sure of their friends and you get the foot comfort and long wear that you expected and more too.

We make nothing but footwear and we know how

MISHAWAKA RUBBER & WOOLEN MFG. CO.
313 Water Street Mishawaka, Ind.
"The House That Pays Millions for Quality"

"BALL (Red Ball TRADE MARK) BAND" Rubber & Woolen FOOTWEAR

Who Drinks the Most Milk?

The U. S. Department of Agriculture, co-operating with the Pennsylvania Department of Agriculture, has just recently completed a milk survey among 400 Philadelphia families which shows some of the factors that influence the amount of milk consumed.

Eight groups of families of 50 each divided according to income, race, and nationality were included in the survey. The Jewish group was the highest in consumption of milk and the Italian and Negro groups were the lowest. The negro group, though lowest in consumption of whole milk, was highest in buttermilk.

A larger percentage of children under three years of age drink milk than do those older.

Fifty-five per cent of the reasons for drinking milk gave the "like it" answer. Twenty-five per cent of the reasons gave health and food value. For those who did not drink milk, forty-nine per cent said they did not like it.

Seventy-seven per cent of those surveyed said that a fluctuation of a cent or two in price either way made no difference in the amount consumed. Changing seasons do not materially affect the amount consumed.

Fresh vegetables and meat are considered the foods of greatest importance. Bread and milk come next.

Only 23 out of 400 housewives knew that milk was cheaper in Philadelphia than in other large cities.

Fifty-four per cent of the children were drinking milk in school. This had a tendency to increase the amount used at home.

First class restaurants use more milk per person and lunch rooms least. Milk is sold more for drinking in cafeterias than in any other class of restaurants.

White Beauty Bargenoch, an Ayrshire owned by Jordon F. Atwood of Maine, just completed an Advanced Registry record of 13,270 lbs. milk, 650.82 lbs. fat, which makes her the senior four-year-old champion of the Pine Tree State.

As a junior two-year-old she completed a record of 9,290 lbs. milk.—Ayrshire Breeders' Association.



FREE *this* BAG *of* Top-Kream Minerals

Science has produced Moorman's Top-Kream Minerals—a thoroughly tested mineral feed for dairy cows—a splendid appetizer. **Produces Larger Profits—Better Calves—Less Abortion—in many cases More Milk.** Phillip Thenis, of Illinois, fed 500 pounds—it stopped abortion—increased the milk flow. E. J. Koehnle, of Iowa, got increased milk gains from 1 to 3 pounds per cow per day. Few realize it but their cows are mineral starved. Now is the time to stop these losses. Top-Kream Minerals will do it.

Get a Bag FREE

Test it yourself. To advertise this wonderful product—to give every dairyman the benefit of knowing about it, we'll send a sample bag, Free—no obligation—enough to feed 24 cows. Feed it yourself—let your cows be the judge. You'll find they like it.

Don't Wait—Accept Now

Clip and mail the coupon today. Try Moorman's Top-Kream Minerals and profit by their benefits. Act now! The bag is Free—no obligation.

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Please send me sample bag of Moorman's Top-Kream Minerals Free—no obligation, in accordance with your offer. I have.....cows

Name.....

Address.....

EDITORIAL COMMENT



A SUCCESSFUL PRODUCERS' ASSOCIATION

Elsewhere in this issue we publish an article regarding the Aberdeen Milk Producers' Association. Before this organization was formed, the milk supply around Aberdeen was not as good as it should have been and the farmers were not receiving a price for milk in keeping with its cost of production. The farm bureau in that section, together with the county agent, joined hands and laid plans to improve the milk supply of Aberdeen and to secure better prices for the milk producers. What was done, how it was done, and what results have been accomplished are described in the article prepared by Mr. Boyts.

From his description the plan to solve the problem of a better milk supply and to secure better prices meets our heartiest approval. The producers did not make the mistake of simply asking a larger price for their milk, but they also took steps to produce a better product and to establish undoubtedly a more efficient system of distribution. We rather hesitated to urge producers to distribute milk in the city, for they felt it was better for them first to learn how to prepare their product and to sell it to dealers whose business it is to distribute it. This is particularly true in large cities where milk distribution requires much experience and skill to do the job well and economically.

There are many opportunities, however, in this country to do exactly what the milk producers have done around Aberdeen. Their work will increase the consumption of milk and secure a better price so producers will do away with many conditions which are at present rather prevalent in several sections of the country.

CHILD LABOR AMENDMENT

We have stated upon several occasions the reasons why we are opposed to the proposed child labor amendment to the federal constitution. If this amendment were ratified by three-fourths of the states, it will give Congress the opportunity to regulate, prohibit, and control the labor of persons under eighteen years of age. A law of this character could never be enforced upon the farm. The enactment of laws that do not have sufficient sentiment back of them to carry them into effect are worse than worthless. They teach people to disregard all laws and that is the beginning of the end of our civilization. We must respect law, for through this attitude comes order, while through disregard for law comes chaos. Imagine the busy mother on the farm who had several daughters ranging from ten to eighteen years in age, being unable to call upon any one of them to do so much as wipe a few dishes or set the table or do any one of the many hundreds of jobs necessary about the house.

Imagine the father, especially during the busy season, who couldn't call upon his boys until they were eighteen years of age to assist him in doing any of the work of the farm. This would not only handicap the owners of farms in getting their labor done, but the injury done their children would be immeasurable.

How often men at the head of some big business, such as a railroad executive, a manufacturer, or even as President of the United States, point with pride and satisfaction to the time when they were engaged in some regular work on the farm. We are told that a very large majority of men directing the big affairs of this nation were born and raised on farms. It is not because farm people are of different blood than those of the city, but it is due to the fact that many jobs on the farm are well suited for children to discharge and to do them regularly. This imposes upon them a responsibility, giving opportunity to develop initiative and stick-to-itiveness which in after years helped them to rise to positions requiring large ability.

We must give all our boys and girls an opportunity to secure an education and to become strong men and women, and if our state school laws are enforced they will not be denied this opportunity. We see no necessity of giving Congress a chance to regulate and prohibit the labor of children under eighteen years of age.

A MARKETING PROBLEM

In recent years many co-operative milk producers' associations have been formed throughout the country. Officers and directors of these organizations have, on the whole, been doing their best to market the producers' milk with less expense and to secure a better price for it. Some of the men who helped form and direct these co-operative marketing companies have failed to understand the real purpose of co-operation and have, at times, advocated unsound practices and made promises which could not be fulfilled. It has been too common for these men to state that if the farmers organize, their problems will be solved and a high price can be obtained.

We can appreciate the necessity for securing a higher price for milk, but it cannot be accomplished through organization alone. Organization has its place, and a very large one, but to state that all farmers know how to produce and that organization is the only step necessary to secure satisfactory prices is misrepresentation and an unsound position. It has been mighty costly in several instances. It has caused co-operative marketing companies to fail, and in places where they were sorely needed to assist the farmer in securing a better price for his products. We note with a considerable degree of satisfaction that many of the men who once took this false position have either changed their minds or have been eliminated from the active management of co-operative enterprises.

The officers and directors of these co-operative marketing agencies are fast seeing that their problem is vastly greater than simply organizing and handling the milk of the producer. They see it is necessary for the farmer to pay some attention to the cost of producing his products, for when they do there will be no overproduction.

We cited a most striking instance some months ago of a farmer who produced surplus milk at a loss to himself and to the association which was handling it. This man owned thirty-six cows. He placed them in a cow testing association and at the end of the year he had the records of production of each cow and the approximate amount of feed consumed by each one. When he divided his herd of thirty-six cows into two groups he found that eighteen of his best cows had yielded him a profit over feed consumed, while the eighteen poorest cows did not pay for feed consumed. It took some of the profit of the eighteen best cows to pay for the feed devoured by the eighteen poor ones. However, the eighteen poor cows produced 71,000 lbs. milk, which was surplus in the market. The co-operative association to which this man belonged was attempting to get better prices for the producers' milk, for they were entitled to it. It was impossible to accomplish this for too many producers were milking poor cows. It was these poor cows which were producing the surplus.

It seems to us the various milk producers' associations and co-operative marketing agencies could do no better work than to direct themselves to establishing cow testing associations. Poor cows must be eliminated and it would be well if these organizations would start a campaign to reduce the herds of their members at least 10%. It has been shown that at least one-third of the cows in this country do not pay for feed consumed. Why keep them?

Successful marketing starts with production and, since this is true, it is wholly within the scope of all co-operative marketing companies to devote themselves to economic milk production. The cow testing association is the best form of organization to get the farmers to eliminate cows that do not pay for their board. This is a big job, but it is the real foundation in successful marketing of milk.

GUARANTEEING SUCCESS IN DAIRYING

In order for the Danish dairymen to more completely master all branches of the dairy industry so that there is a tendency towards a reasonable stabilization of their business, it has been necessary for them to do certain things. It will be interesting if not helpfully suggestive to dairymen in the United States to know some of the things that the Danish dairymen have found necessary to be done in order to insure a guarantee of reasonable success.

"They are signed up under a binding contract to deliver all of their milk, except for household purposes, to their co-operative associations for periods of from ten to twenty years."

It seems from this that it has been necessary, through the long-time contract, to insure to the dairy association management a guarantee of dependable volume of product. This enables the management to plan a program and stick to it.

"Each dairyman is required by contract to deliver every day, either to the association or its milk collecting agencies, a product that is sweet and in good condition."

In the development of their marketing associations, these men have found by experience that standardized quality products are most successfully merchandised. They have finally learned that it is bad business to attempt to do the impossible—make a high quality product from a second or third rate raw material.

"Over half of all the dairy cows in Denmark are in cow testing associations."

They have recognized, largely perhaps through experience, that the elimination of the low producing cows is an economic necessity.

"No dairy association can export butter unless it comes up to the standard of the 'Lur' brand and unless the association has received authorization from the Department of Agriculture."

This is a safeguard towards maintaining the confidence of consumers in Danish butter.

"No person is employed as manager of a dairy association or as buttermaker unless he has had five years' practical experience."

This bears no little relationship with the safeguarding of quality of product and efficient management.

"Each manager of a dairy association or buttermaker is required by contract to make a certain standard, grade, or score of butter for the entire year. On all of the butter that scores over the required standard the employee receives a bonus. But if he fails to make the required score he stands the loss out of his wage."

This is another way of saying that these men must know the business for which they are hired or get off the pay roll.

While the conditions under which the Danish dairymen operate are much different than those in the United States, at the same time a program of, (1) economical production of milk on the farm, (2) the production of a sufficient volume within the territory of the manufacturing plant, (3) quality of product and, (4) efficient management are no less important to be considered by the dairymen of this country.

If cow testing association work did not pay, would the Danish dairymen maintain over 800 associations in their small country?

Changing Pulsations on Milker

Do you consider it an advantage to have a milking machine with a pulsator in which the suction and relief can be changed to suit individual cows?
Snyder, Colo. R. N. W.

There is no doubt but that in certain instances it is advantageous to be able to regulate the length of the suction and relief stroke on the pulsator of a milking machine. However, in connection with this, I should make a statement that the operator must understand the cows to be milked.

With the average milking machine, and the average operator, I am inclined to think there is no need of adjusting the length of the stroke. The milking machine manufacturer has given this question special study and knows about what speed of pulsation and what length of relief and suction suits the average cow the best. If an operator who has not made a special study of the cows and machine milking, tries to change the length of the stroke of the pulsator, he may make such changes as will be injurious to the cow and to the work of the machine. With an expert milker, undoubtedly changing of length of pulsation stroke on the different cows is advantageous; but with the average operator it is not any advantage, and it may even prove to be injurious.

C. LARSEN.

South Dakota College of Agriculture.

Developing Dairy Heifers

Speaking of handling dairy heifers, Levi B. Smith, of Miami County, Kansas, has said a good deal in a few words: "The Kansas dairymen had better put out of mind the old notion that the really good dairy cow is an accident. Heifers allowed to shift for themselves on barren pastures and frozen stalk fields cannot be expected to reach their highest development. Every man knows that if he expects his son or daughter to reach their full possibilities as a man or a woman, great care must be taken. So it is with heifers. If we hope for a fully developed cow, a cow that will be a source of profit and a pleasure to handle, we must be generous with the heifer during her growing period."

The three main factors in developing dairy heifers are the care and feed they receive and the age at which they are bred. To develop to the highest degree whatever capacity for growth, stamina, and milk production they have inherited, they must be well fed and cared for and bred to calve at a suitable age. That is, their environment must support their inheritance. As an experienced Kansas dairyman has said, "The fool notion that a heifer should be hardened by exposure and scant rations should not be tolerated."

Preparing to Build

For four years and over I have farmed, milked cows, and sold cream, with no shelter for stock except framework covered on top and sides with straw or hay and with boards on south front.

I will have $400 or $500 to spend on building this fall. I want to start a barn that will be a good shelter for the present and can be modernized later without any expensive changes. I am 14 miles from the railroad where I have to get all lumber, cement, etc. I have an unlimited quantity of stone, which have been or can yet be picked up off my fields or the still unbroken prairie. Sand and gravel are available at a pit six miles away.

I am thinking of building a stone basement barn with quarters for stock in the basement. Perhaps I cannot shelter all my stock for the money I can now spend. How deep in ground must basement be, etc., to make barn warm enough for the use of milking machines?

I do not expect to build now room for all the hay but just enough to hold a few loads at a time.

Oneida, S. D. R. H. B.

When building at this time you are using good judgment in laying plans for the future. With the amount of money available at present, a good foundation should be provided for the future barn and the stable walls be made strong enough to carry the load when the hay storage is built above.

It is suggested that the width of the barn be made not less than 30 feet inside and the sides and one end be made permanent. One end should be constructed so that it can be readily removed when the barn is made larger.

Just how much can be built for $500 will depend partly upon how much of the labor you can furnish yourself. It is suggested that you have a talk with some contractor after you have decided in a general way what you would like to build at this time. When you have told him the amount of material and labor you are in position to furnish, he can make an estimate, which will decide whether you can build what you have in mind or must cut down.

With the stone and gravel available, a concrete wall for stable would no doubt be the most economical construction. When building, stones can be thrown in with the concrete when it is poured which will reduce the amount of concrete required and of course reduce the cost.

The only objection to concrete for stable walls is that it will frost more readily than wood construction. In order to make concrete walls warmer, many dairymen place wood sheathing on the inside.

If the barn is built into the bank, it is advisable to leave room for small windows on the bank side.

With the barn filled with stock, it should be warm enough for the use of milking machines.

Wisconsin. A. G. CRERAR.

Inbreeding and Line-breeding

Would it be possible to give in plain language a brief outline of the system of line-breeding used in general and to tell where the dividing line between line-breeding and inbreeding really is? If it is possible to use a bull on his dam, why not use him on his daughters? What could be expected as a result? Would it be dangerous for the cows in case of abnormal calves? Or, if normal, could anything be expected of such heifer calves if raised to maturity? I am asking this for the benefit of the small dairyman who has an unusually good pure-bred bull, a small herd of good producing grade cows, and who feels that he cannot afford to feed two bulls.

Ashland, Wis. P. C.

Inbreeding is the term applied to the practice of mating closely related individuals such as brother and sister, sire to daughter, or son to dam. It is generally considered that an individual is inbred when its parents show fifty per cent or more common ancestry in the pedigree.

Line-breeding is the term applied to the practice of mating less closely related animals than is practiced in inbreeding. An individual whose parents contain 25 to 50 per cent of common ancestry is considered to be line-bred.

Out-crossing is the practice of mating entirely unrelated individuals or those having less than 25 per cent of common ancestry.

The primary purpose of inbreeding is to fix or intensify certain desirable hereditary qualities or characters so that these will be more consistently transmitted from parents to offspring. The fixing of type and characters is more quickly accomplished through inbreeding than in any other manner. The path traveled in inbreeding to fix certain desirable characters such as tendency to high milk yield, high butterfat percentage, size, physical breed type, vigor, fertility, etc., is beset with certain dangers. Undesirable characters such as a tendency to sterility, lack of vigor, low milk yield, low butterfat percentage, especially if present in both the male and female hereditary make-up, are fixed in the offspring to the same degree as are the more desirable characters. The problem then is to know how to intensify the desirable characters without carrying along the undesirable and dangerous characters. It, therefore, follows that the practice of inbreeding must also be accompanied by the art of skillful selection. Skillful selection embodies not only the ability to choose animals for mating that possess outstanding desirable characters but also the ability and courage to eliminate from the breeding operations those individuals that show a tendency to possess undesirable characters. We used the word courage because rigid discipline has a place in the successful practice of inbreeding.

It is generally considered that the practice of line-breeding is not accompanied with so great a danger of carrying along and fixing the undesirable characters as is found in inbreeding, especially when the latter practice is by an unskilled breeder lacking the qualities of close observation and discipline in selecting the breeding animals. Line-breeding is the most popular practice especially in certain breeds.

History seems to support a frequent use of inbreeding practice early in the development of different breeds of cattle to establish and fix general type and breed characters. This is especially true in the Shorthorn, Hereford, and Angus breeds of beef cattle.

At the present time one can find from the different breed registries individuals from the three (inbreeding, line-breeding, out-crossing) systems that are prepotent for the desired characters of refined type and milk yield.

The primary purpose of inbreeding is to eliminate from the hereditary characters as rapidly as possible undesirable characters and at the same time to combine helpful and desirable characters. In other words, it means to purify the hereditary make-up of the individuals in a herd for desirable characters so that there is a greater degree of certainty that offspring will be better or equal to their parents.

Finally, in answering your question, we would say that inbreeding in its generally accepted meaning is a good practice in improving dairy cattle if: (1) the animals with which you start all possess to a fairly good degree those characters desirable in dairy cattle; namely, vigor, fertility, tendency to high milk yield, tendency to high butterfat percentage, size, and general breed characters; (2) the owner possesses some ability in the art of close observation and skillful selection and mating; (3) the owner can discipline himself enough to have the courage to eliminate from the breeding operations those animals that look nice but otherwise do not measure up to the requirements of improved dairy cattle.

Growing Sweet Clover

How and when should sweet clover be sown? Should it be mixed with other grass seed? What winter dressing should be used to keep it from winterkilling? How many years will it last for hay and how many crops can be cut in one season? How tall will it grow?

Colby, Wis. J. J. S.

We believe you will have the best success in Wisconsin by seeding biennial white sweet clover at the rate of 10 lbs. per acre with the usual seeding of grain in the spring. It is seeded in the same manner as red clover is seeded with grain. We do not ordinarily advise a mixture with other grasses. Secure what is known as scarified seed, and also the proper inoculating material. It will not be necessary to put on any winter dressing, although if the land is of poor fertility a light dressing of manure will be helpful if applied in the fall of the year after the sweet clover was sown the preceding spring.

Sweet clover will last for two years only and then needs to be reseeded. Under average conditions it should give pasture in the fall of the year that it is seeded and the next year should give pasture up until late summer, or until the new seeding of sweet clover comes on. In some cases it is possible to cut a small crop of hay the first year when the sweet clover is not pastured. The next year it will make its largest growth and one or two cuttings of hay may be secured. However, the second year sweet clover is inclined to grow very rank and, although a number of men have found it desirable as a hay crop, we feel that its greatest value is as pasture and as a green manure crop to plow under. If not cut and the season is favorable, sweet clover should attain a height of 2 to 3 feet the fall of the first year. The second year it will grow very coarse and tall if not cut early, but the second crop will be somewhat finer as a rule. The first crop of the second year should be cut to leave a stubble of 4 or more inches, otherwise the cutting will kill out the stand and there will be no second crop.

No Udder No Cow

The maintenance of healthy cows with normal udders is of vital importance to the dairy industry. A cow that is healthy in every other respect, but has a diseased or non-producing udder, is worthless in a dairy herd. The prevention and treatment of the diseases which bring about this condition are discussed in Farmers' Bulletin No. 1422, U. S. Department of Agriculture. The limitations of a bulletin of this kind preclude anything more than a brief discussion of each disease and a suggested line of simple treatment adapted to the means and condition of the average dairyman.

A fundamental axiom of horse husbandry is well expressed in the statement "A horse is no better than his four feet." Translated into terms of dairy husbandry, it would sound much like this: "A dairy cow is no better than her udder."

Implied or expressed, this rule largely governs the desirability of animals considered for a dairy herd, or the fitness of any animal to remain in the herd. The attention of the stock judge is focused on the udder conformation as a guide to a cows' excellence, and the dairyman ultimately rates her value to him according to the evidence of the milk sheets and the butterfat test.

The dairy cow's udder is an abnormally developed gland, the result of centuries of careful selective breeding. It is complex in its physiology. Functioning as it does, under high tension, for maximum milk production during most of the adult life of the cow, this marvelous structure is subjected to a very great physical strain, with small opportunity for rest or repair. The extra tax on the udder which is involved in the birth of calves and shortly thereafter often counterbalances the rest allowed between milking periods.

We know that thousands of dairymen will appreciate having this bulletin for study and to file in their library. Write to the U. S. Department of Agriculture for Farmers' Bulletin No. 1422.

Hoard's Dairyman

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EDITORS
A. J. GLOVER, P. C. BURCHARD

General Manager - - - FRANK W. HOARD
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Coming Events

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Dec. 10-16—Pacific Slope Dairy Show, Oakland, Calif.

National Dairy Association Annual Meeting

The annual meeting of the National Dairy Association is called for Friday, December 5th, at 10:00 a. m., at the Auditorium Hotel, Michigan Avenue, Chicago.—W. E. SKINNER, Sec'y.

Extension Workers At Cornell

H. H. LYON, NEW YORK

EACH year in late fall extension workers of New York State gather at the State College of Agriculture at Cornell together with the Farm Bureau and Home Bureau agents and Junior Project leaders for a week of conferences. A great amount of information is presented at these conferences and the one in late October this year was no exception.

The president of the State Federation of Farm Bureaus congratulated the county agents on the unity of purpose of the various agents, the State College, and the State Department of Agriculture. He spoke particularly of T. B. work and expressed satisfaction respecting the progress it has made. It is true that the bureau federation work has been curtailed somewhat for lack of funds. Agent work, however, has reached more than ever. Then Mr. Lee thinks that half of the service rendered has been for non-members. Reforestation has made very satisfactory progress. The membership in farm bureaus of New York has not increased as much as might be desired, but it is believed to be now on a sound foundation and will grow.

Tuberculosis Eradication

We of New York feel much encouraged in respect to reduction of bovine tuberculosis. Commissioner Norgord spoke of this work and is enthusiastic over the progress made in a year. A year ago there was misunderstanding, but this is now past. County agents are working cordially. The veterinarians are under careful supervision. Combined tests are necessary. Two forms of tests ought to be applied at one time and in some cases all three should be. Disinfection should follow quickly and it is necessary that the veterinarian be on hand. A delay of a week or two will not answer. Again let all the various papers needed come along at the one time, otherwise the claim has to be sidetracked and thereby delayed.

Higher salvage value is being obtained than formerly. Three years ago it was $14.20 per animal and it has been increased yearly until now it is $19. On the other hand, state money is now saved. Formerly the average state indemnity was $76 and now it has dropped to $50. Then all new testing is on an area basis. One county, Essex, stands accredited as a county and Steuben is expected to be by December fifteenth. Mr. Norgord urges that new additions to any herd should be good animals.

Commissioner Pyrke continued the discussion and said that the conditions are a hundred per cent better than a year ago. Now the work is really under control. About 5,000 reactors are tested out each month at this time. The work slows up in bad weather, and the state is paying only two and a half million this year. An appropriation of four millions is asked for from the next session and Mr. Wetter, who is chairman of the agricultural committee, remarked that he believes it will be made. There is no deficiency appropriation asked for this time which is the first instance of the kind for some years.

Price Levels

Conditions are such now that the price level is most likely to go somewhat higher next spring than at the present time, remarked Dr. G. F. Warren in his second address at the conference. There are little waves in the price level but there are also curves over a longer period. If we can tell the average price level we can usually tell pretty nearly what will be the price of various commodities although all commodities do not vary to the same degree nor at the same exact time. Gold changes greatly in value from time to time. The general trend of gold prices is now upwards which means that the longer curve of prices will be downward.

Numerous charts were shown to make clear various changes and present prices. One chart presented the difference between union labor and farm prices as compared with prewar prices, the former being at about 220 per cent while the latter for the United States is 137 per cent of the pre-war. The trend of prices of hogs, horses, beef cattle, etc., was shown. Hogs are most likely to go up probably next year. Horses will later advance and it is a good plan to discard the old horses this fall and buy good, young horses at $50 to $75 to be kept for some years as they are likely to be higher before many years. Beef cattle may delay six years or so before being particularly high. Butter is now relatively high and may decline for a time with short changes both ways. Butter affects the price of milk. It is much easier to transport butter from Minnesota to New York than the grain necessary to produce that amount of butter. There will be better returns for the dairy in time, for cities are growing and milk consumption is on the increase. There may be some hunting for milk in five or six years.

Co-operation

Dr. O. B. Jesness of Kentucky spoke on co-operative marketing. He regards the farmer as not at all lacking in business sense. He does well in directing his co-operative associations. People frequently speak of farmers as individualistic, but the speaker thinks that if one were to start out to bring together into a buying association the owners of many corner groceries he might find them individualistic, too. The U. S. Steel Corporation and the Dairymen's League are different. The former is engaged in producing at one point. The League, as such, is not producing although its members are, but is doing the marketing only.

Co-operatives cannot control prices. There is a difference between fixing prices and influencing prices. Prices may be influenced by quality, grading, storing, and advertising. Better and more experienced salesmanship may be had than individual farmers generally can supply by themselves. Speaking of the federated type and the centralized type, the speaker did not seem to have any particular preference. He thought the commodity might sometimes determine this. In the federated type there may be the local pool, but he thought it possible to have the local pool, if desired, in a centralized association.

The Dairymen's League

The Dairymen's League is regarded as the most important co-operative association in New York State and possibly in the country. Since it is important and has presumably the strongest enemies, or perhaps because of its importance it has the strongest enemies, it received the most lively attention of any discussed at the conference. Paul Smith, a director and member of the executive committee, gave out the most of the information. There was a question raised as to the advisability of the League selling on the "platform". Mr. Smith held that sales on the platform by the League do not materially compete with the dealers who regularly buy class one milk from the association. They have their regular platform customers. Practically all the independent co-operatives sell platform milk.

To counteract any tendency towards an unusual withdrawal it is proposed to acquaint members with the accomplishments of the association. Three men have been delegated to go out on this work and have been at it now for a short time. They are each to spend about three months in the work. It is not the expectation nor has it been, explained Mr. Smith, to fix an excessive price on milk, but it was the hope to make the fluid price equal the cost of production plus a reasonable profit. This he holds might now be done were it not for the competition of those outside the organization. Cream has some competition from the West and butter, cheese, and condensed milk have nearly a world competition. A chart was presented showing that the price of milk has been considerably higher in relation to butter and cheese since the League organization was formed than before.

One of the disadvantages has been that some large expensive plants have had to be operated partly as condensing plants and partly as shipping. This changing has cost considerable money. In some cases increased volume of milk at a particular plant would lower costs of handling. Evaporating plants ought to be located further out and as far as possible all fluid milk supplied from nearer the city. The plants, however, within the last two years have been brought up to a high standard of working efficiency which is a remarkable achievement for so short a time.

A question came up as to whether experienced business men should not be brought into direct business affairs or at least counsel. Mr. Smith replied that bankers are frequently consulted and others if possible, but that a business man must have long experience with the co-operative before he can grasp the real situation and in many cases it cannot be brought about. It is necessary that the management be familiar with farm affairs and conditions.

Of course, it is known to all who study the situation, as the speaker explained, that the League can never get the price to its members that the outside dealer pays because the outside dealer has practically no surplus to care for. The non-pool buyer has no stable price for all localities but pays much less where there is no organization in competition. Also he does not give out his prices and there is no way to make comparisons. Then contrary to the usual opinion it was held that the spread between what the outside dealer pays and what the organization can pay is not the greatest cause of dissatisfaction but rather the present economic conditions.

Considerable discussions went on relative to the employment of a general manager rather than leave the management in the hands of a committee of five known as the executive committee. The speaker is for a continuance by the committee. There are ten department heads who are expert in their lines and each member of the executive committee has direct charge of two of these. This brings the membership, he says, more closely in control of operations.

Wisconsin Dairymen's Association

THE annual meeting of the Wisconsin Dairymen's Association was held at Madison on November 6 in conjunction with the annual meeting of the county agents, cow testers, and farm institute lecturers. With this type of meeting the lessons to be learned can best be carried to every section of the state.

The educational part of the program was largely devoted to a discussion of summer feeding of dairy cows, with special stress on sweet clover for pasture. Professor W. J. Fraser opened the discussion with an address on "Ever Failing And Never Failing Pastures". He showed slides illustrating blue grass and sweet clover pastures and he kept the attention of his hearers. The vital interest in this subject was well shown by the many questions put to the speaker as to how to get a stand of sweet clover, how to handle it, and what its uses were other than as pasture and green manure. He was full of information and many of his hearers got a new understanding of the vital importance of summer pasture.

Professor Fraser drew attention to the long period when pastures are relied on for feeding dairy cows and how blue grass pastures frequently supply only a portion of the feed actually needed. He said he had figured out that it would require a dairy cow with a mouth two feet wide and going at the rate of 18 miles a day to get enough feed from blue grass pasture at certain periods of the summer. He said the first stomach of the cow was a seven-bushel storage for feed that the cow should be allowed to fill quickly and then lie down to chew if she were to produce milk. This she can and does do when on sweet clover.

The address of Mr. Fraser followed along the general line of his series of articles in Hoard's Dairyman, but was interspersed with illustrations and epigrammatic statements reinforcing his general argument. He told how one man asked him if sweet clover did not have a narcotic in it, because his cows laid down so much. The reply was, "They lie down to digest the feed they were able to secure in big bites of sweet clover whereas on blue grass in August they were kept on their feet trying to get small mouthfuls of grass."

In the discussion following this address, Wisconsin men told of their experiences with sweet clover. Mr. Palmer reported that he had pastured sweet clover for six years and had found it very satisfactory. He has never been troubled with bloat. To secure good fall feed, he seeds with grain as a nurse crop, a mixture of 6 lbs. sweet clover, 2 lbs. alsike, 2 lbs. red clover, and 2 lbs. timothy. Emphasis was given to the fact that sweet clover needs a sweet soil just as alfalfa does. Also that sweet clover seems to be best adapted to pasture and green manure, although some reported success as hay and silage. There is a danger, however, in moldy sweet clover hay or silage.

Professor George C. Humphrey discussed the value of summer silage as insurance against pasture failure. He gave a number of instances of farmers who were making profitable use of silos with a minimum of pasture.

Professor Mortimer discussed emergency crops, with special reference to oats and peas, recommending that Wisconsin green field peas or Scotch green peas with medium late oats give the best yields. He also reported that Sudan grass had been found superior to millet in yield and palatability. Sudan sown at the rate of 20 lbs. per acre will make good pasture, but should not be pastured until one to two feet tall. A mixture of 10 lbs. Sudan and 1½ bushels soy beans will give hay containing about 1-3 soy beans.

Professor Morrison discussed the need of efficient cows well fed when feeds are high in price. Failure to feed good cows well is false economy. We shall reproduce his paper in an early issue. The discussion by R. A. Kolb and C. H. Imig emphasized the necessity of culling out the poor cows and feeding well if profit is to be secured. Mr. Imig introduced a problem of breeding when he drew attention to the desirability of securing sires that will at least maintain the average fat per cent for the breed. He depreciated the selection of a bull from the phenomenal cow, preferring to secure his sire from a family of good producers.

The relation of prices of dairy cattle to prices of dairy products was discussed by F. G. Swoboda, A. O. Collentine, W. J. Rogan, and Milton Button. Some of the speakers believed that there was a very definite relation, while others held that the price of dairy products influenced demand but it was difficult to assess any direct ratio between the rise or fall in price of cheese and a similar rise or fall in price of cows.

There was considerable discussion of the possibility of promoting cow testing associations on a plan whereby the cost would be less, at the same time retaining the present type of associations. There was no suggestion as to how successful associations of this type could be organized and it was finally decided to leave the matter with instruction to a committee to investigate and report at a later date.

The following officers were elected for the ensuing year: President, H. F. Schroeder of West Bend; vice-president, D. P. Hughes of Menomonie; secretary, Paul C. Burchard of Fort Atkinson. The following resolutions were adopted:

WHEREAS, The dairy products of Wisconsin are meeting each year greater competition from foreign countries, such as Denmark, New Zealand, Australia, and Argentine; and,

WHEREAS, These countries are devoting much effort in producing high quality dairy products; therefore, be it

Resolved, That we, the members of the Wisconsin Dairymen's Association, in annual convention, urge our dairy farmers and the manufacturers of dairy products to devote more effort to the production of quality as the most effective means of meeting this competition;

Resolved, That one of the most outstanding lessons of cow testing association work is its determination of the poor cow, revealing to her owner that he cannot gain any profit from her, and the consequent necessity of her elimination;

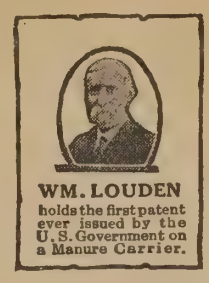
Resolved, That we urge the closest and most hearty co-operation between all the various branches of dairying in the development of our industry.

WHEREAS, We need to encourage the production of not more but better cows; and as these better cows are nearly always daughters of good sires and as many of the low producing cows are daughters of poorly bred bulls; therefore, be it

Resolved, That we encourage a more liberal use of the best dairy sires in our cow testing associations by awarding the owners of the bulls having the five highest average producing daughters, according to their age, some suitable certificate of merit.

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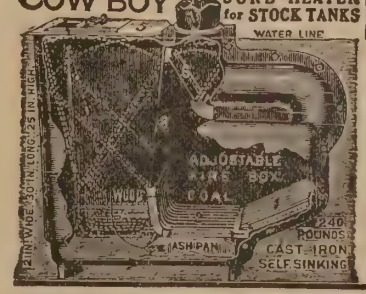


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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Wants Reason for Single Tax

HOARD'S DAIRYMAN:—Mr. McKnight says, "God gave the land to all his children". Hence it appears he thinks those who live on the land should pay all the tax. Who is his authority? Who are God's children? If the Japs are, Mr. McKnight should write to President Coolidge and let him know it for then the Japs have as much right to the U. S. A. as Americans.

Was it only land that God gave men? If God gave land He gave everything else. The laborer was given the ability to produce and to think by nature also. You see no reason why he should be taxed for it. The only difference is that his power to labor and think was a direct gift while the land was taken from the beasts of the field or a preceding race.

Mr. McKnight does not misstate facts. He ignores them altogether and expects us to swallow all his theories whatever he advocates. Why? The reason why is because Mr. McKnight sees no reason why men should be taxed for (improvements on land), buildings, etc. Yet he would tax land for its fertility, its ability to produce (with man's aid) another improvement. He should read Hoard's Dairyman on soil fertility. Evidently "he has not taken the time to inform himself". Land is made productive not by men living on it but by those improving it. It is not his presence but his ability to produce and use land that makes it valuable. Land, labor, and brains are not wealth but the ability to produce usable material from each is. Show one reason why one source of wealth should bear all the tax. Our fundamental law is not to tax just one source of wealth, one form of improvement, but all wealth equally (on the free and equal basis). Progressive thought is not to make taxes less just but more equitable. Progressively increasing income tax is the modern idea, letting those most able to carry the load be burdened according to their ability to carry it. I work at carpentering and farming. Why should I be taxed for improving the land fertility and not for building on it?

I would like to hear from some one in these columns who believes in single tax and can produce a few reasons. I am from Missouri when it comes to single tax and arguments such as Mr. McKnight's do not satisfy me for he simply states in effect the reason why is because.

Michigan. RALPH W. STEED.

A Motto For Single Taxers

HOARD'S DAIRYMAN:—As I understand Mr. Oliver McKnight's article in your issue of Oct. 31st, he claims "God is behind this single tax movement." I remember when a boy that a politician was running for office on the Prohibition ticket. He had held office under every party that had been before the public for many years previously and as each party kicked him out he espoused the cause of another. He ended his campaign oratory on each appearance in his last role with the declaration, "God is behind this movement".

The people, however, saw the cloven foot and trounced him plenty. Have noticed that when acquaintances of mine had no property they favored single tax but later as they became possessed with real estate they cooled off and turned against it. There is no feasible way for the state to become possessed with title to all real estate but the Russian way and when those on the land are required to pay all expenses of government, will it not work here as it has in Russia, viz.: Those on the land lay down on the job and the people go hungry as they are now doing in Russia? People must have some incentive or reward for toil or they will resort to sabotage.

It is nonsense to claim that those who toil would not pay larger taxes proportionately than the rich because they do under our present system. Investigation shows that the farmers in Minnesota are paying about two-thirds of our taxes and under your system they must pay two-thirds of the one-third in addition to what they now pay. In cities one can buy a building lot on graded streets with water and gas for from $100 to $500, so the lot cuts a small figure in the cost of a home. Investigation shows that taxes now take 70 per cent of our rental income on the average. Why is not 70 per cent enough to satisfy the greed of even a single taxer?

The single taxers make claims that remind me of the motto I have seen on sticking plaster packages, viz.: "I heal all ills save those of love".

Minnesota. H.

Want Efficient Service From Railroads

HOARD'S DAIRYMAN:—I had no desire to open a railroad debate in offering my article of Aug. 22. Mr. Charles Dillon of Illinois has taken exception to my statement that the railroads are guaranteed a profit. If he will concede that the present transportation act is a paternalistic measure he and I are of the same mind.

Every student of railroad affairs has come to realize that our railroads with a few notable exceptions are financial intermediaries. On account of the great consuming ability of the railroad for coal, iron, steel, and lumber, as well as repairs, construction, and high salaries they constitute today the most gigantic grab bag we have for exploitation by the purveyors of above mentioned commodities.

Our congress authorized the fixing of a rate which would take from our people a desired sum for this grab bag. My use of the guarantee of profit was loosely made, I admit, but I was not in a railroad discussion and my use of the term was as good as any for the purpose intended. I would now ask Mr. Dillon if he does not think it advisable to repeal the present transportation act since it shoulders such a gigantic loss upon the railroads. My position is that since we have these paternalistic measures enacted for the benefit and at the instigation of private interests in our country, we should either take in every industry including farming or take it all away since it does plainly operate for the aggrandizement of some and to the detriment of many as it stands today. We of the common farming class don't care a rap whether the railroad is operated as an intermediary or as an individual unit as long as it serves us efficiently. The most of us don't want it in government hands but we do want an even break with the railroads and all other interests. Let's have it all paternal or none.

Minnesota. HOWARD KIMBLE.



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[*Signed*] Geo. W. Gregg,
Garrison, North Dakota.

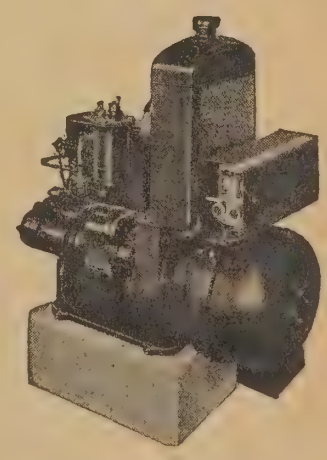
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National Milk Producers Meet

THE program for the eighth annual convention of the National Co-operative Milk Producers' Federation, held at Detroit, Mich., November 14—15, consisted of talks and reports by representatives of several large co-operative agencies together with a representative of the U. S. Dairy Bureau. Important points brought out by the several speakers are as follows:

Charles W. Holman, secretary of the federation, paid particular attention to the flexible tariff provision of the Tariff Act. He believes the provision is a miserable failure and that the numerous tariff investigations have resulted in confusion, uncertainty, nervous market conditions, and great expense. He believes the "cost of production" theory upon which the flexible tariff provision rests could better be replaced with "common sense". Mr. Holman pointed out that the way in which the Tariff Commission determines the "principal country of competition" is not sound in all cases and cited as an illustration that New Zealand, Australia, and Argentina may be a greater menace than Denmark, the country selected by the Commission.

According to Mr. Holman's report, the farmer membership in the federation has increased by 80,000 through the addition of co-operative marketing associations and now stands at approximately 300,000 members.

⚜

Dr. C. W. Larson, chief of the U. S. Bureau of Dairying, talked principally concerning the international aspects of the production and distribution of dairy products. He pictured the dairy industry in this country in terms of its enormous growth during the past 50 years, in terms of production and consumption, in terms of exports and imports, and in terms of the effect of the probable expansion of dairying especially in certain countries of the southern hemisphere.

The peak of our expansion, so far as exports are concerned, came in 1919 when it took two and three-quarters billion pounds of milk to make the products that were exported that year. The ending of the war and the consequent lack of credit on the part of our foreign outlet stopped this large export.

The farmer has been urged to control production but it must be remembered that there are many factors involved in quantity control in a particular year that may not be controlled.

Dr. Larson pointed out that too often the price on our entire production is influenced by the ability and desire of foreign countries to buy these products. This applies more especially in times of surplus production. Our chief concern is to hold production, in so far as is possible, at such point as will enable us to escape the demoralizing effect that comes with large exportable surpluses in which case foreign desire for and ability to pay for our dairy products very nearly sets the price on our home consumed products.

At the present time we are exporting about the same quantity of butter as before the war. Denmark has expanded her export trade. New Zealand, Australia, and Argentina are increasing their production. Germany, normally a heavy importer of butter, is gradually but slowly coming into the market.

⚜

George W. Slocum, president of the Dairymen's League Co-operative Association, told those who attended the convention that the success of the League was due to the individual responsibility which each member has voluntarily assumed from the beginning.

An outstanding feature in League activities during the past year has been the expanding of the fluid milk market. The total quantity of milk pooled and sold annually is around 2,675,000,000 pounds. An educational program has brought about a better understanding of market problems. The success, in considerable degree, depends on reaching the individual member with a clearer understanding of the policies, business, and merchandizing movements of the association.

Membership in the League reaches farther than the co-operative selling of dairy products. It enables the dairy producers to exert collective action on important legislative problems, etc.

Farmers have so much in common that the League policy has been to co-operate with other farmers' organizations, such as the grange and farm bureau.

It is the opinion of Mr. Slocum that the educational work carried on by the League among consumers has been very valuable and is especially important at times when it is necessary for farmers to raise the price of their product.

Some important changes have been made during the past year in the general management of the League's affairs. The change has been from a general manager to that of departmental control by twelve separate and distinct heads, each under a specialist who are in turn directly responsible to the farmer-elected officials which in this case is an executive committee of five men who carry the authority of the board of directors when they are not in session.

It is quite a problem to broaden the vision of each individual member so that he grasps the entire problem. It takes many sacrifices to start and maintain an association of this nature and size. The individual member is inclined to discard these values, intangible as they are, in his measure of the success and service of the association.

The League's credit system has saved dairymen many losses that otherwise would have come due to the failure of distributing agencies.

The League now operates 150 plants which are well located with respect to serving members. In addition, the League operates twelve manufacturing plants. The "Dairylea" brand of condensed and evaporated milk has the greatest factory output value, ice cream is next, then butter, then cheese.

As to quality of milk, 90 per cent of League dairymen pass the New York City regulations. Quality control is being looked after in a splendid way by veterinarians and sanitary inspectors.

"Dairylea" brand of League products is now on 12,000 of a possible 15,000 New York City retail accounts. These products are selling in Germany, England, South Africa, Panama, Cuba, Palestine, Syria, Bermuda, Jamaica, and Peru.

On March 31, the membership in the League was 68,838 individual contracts. After deducting requests for cancellation and adding the new contracts, the League membership is 67,227. The finances are in good shape. The confidence of the membership is shown by the fact than an offer by the League to take up $1,500,000 of 6 per cent interest bearing certificates met a response to the extent of only $425,000.

Mr. Slocum concluded with the thought of there being much talk about a better plan but thus far no one has offered a better plan.

⚜

Frank G. Swoboda, general manager of the Wisconsin Cheese Producers' Federation, after telling of the size of business measured in terms of products handled and number of assembling plants, gave considerable attention to telling about the federation's efforts to improve the quality of cheese.

The organization represented by Mr. Swoboda handled 154,000,000 pounds of cheese valued at $34,250,000 this past year. The federation controls nine assembling branches, eight of which are in Wisconsin and one in Minnesota. Active brokers are maintained in 50 cities.

The efforts of the federation in pushing its brands of quality cheese have been rewarded with considerable success. Cheese grading has been fairly satisfactory.

The chief difficulties encountered in the efforts to gain a recognition among consumers for quality cheese are: 1, the inclination in certain parts of the trade to buy process cheese; 2, the general tendency to indifference and antagonism from a part of the cheesemakers towards a quality program; 3, the tendency of consumers to consider price rather than quality and to be satisfied with the inferior qualities thereby putting a premium on the poorer cheese.

The federation conducted a quality contest and a cheese factory beauty contest. It has made every effort to win the confidence of the cheesemakers and dealers in the fight for quality.

The majority of farmers think of the Federation only in terms of its ability to pay more and do not value the organization as a competitive faction, as a vigorous champion for quality, and as having a sound merchandizing program.

Mr. Swoboda indicated that little progress can be expected as long as a nation more able to pay continues to give cheese producing dairymen less for their efforts because they in their chosen disorganized condition are actually willing to go on producing more and accepting less in dollars.

⚜

C. Bechthelheimer, secretary of the Iowa Creamery Secretaries' and Managers' Association, confined his remarks briefly to telling what his association is doing to improve the quality of butter, to facilitate more economical transportation and marketing of butter, and to increase consumption of dairy products.

Iowa creamery butter is gaining a reputation for quality as evidenced by the winnings of Iowa buttermakers at the National Dairy Exposition. Twenty-one creameries are now making the "Iowa Brand" butter.

Compulsory pasteurization is being enforced by the Department of Agriculture through the use of recording thermometers, the readings of which must be dated and held until ordered destroyed by the field inspectors.

Thirty to thirty-five consolidated carloads of butter are now going out of Iowa each week. This does not include full carloads sent out by individual creameries.

⚜

W. M. Cease, secretary of the Farmers' Milk Producers' Association of Richmond, Virginia, said that the dairy cow and co-operative enterprise are receiving serious consideration in his section of the South. As evidence that his association has merited some degree of success, Mr. Cease said that in 1916 when the association was organized under difficulty, milk was selling at 20 cents per gallon and 3 cents per pound for butterfat over 3.8 per cent was allowed. In 1924 milk is selling at $3.93 per hundred and 5 cents per pound butterfat over 3.5 per cent is allowed. The educational efforts of the association have been valuable. Thousands of dollars were raised to put on a "Milk for Health" campaign which increased the consumption 41 per cent.

The members of the board of directors take their work seriously and give regular attendance at monthly meetings. The organizers were called dreamers and were scoffed at in 1916.

⚜

I. W. Heaps, secretary of the Maryland State Dairymen's Association, urged that every organization of producers should recognize that production, distribution, and consumption are closely linked together and that failure to study each factor invited failure to the whole enterprise.

Two features of this association are that there is an arbitrator who settles disagreements between producers and distributors and that all testing is done by an independent laboratory. The first feature has proven very satisfactory. The second, likewise, has proven satisfactory and has eliminated adulterated milk.

Farmers' Judging Contest

One hundred thirteen farmers representing seven states took part in the first farmers' judging contest at the National Dairy Exposition this year.

In the judging by teams of three men each, the Iron County Guernsey club team of Michigan, composed of Richard Johnson, Hubert Greeland, and Francis Pelletier, won first; the Mazomanie Holstein Cow Test Association team of Wisconsin, composed of Carl Schumann, Ralph Hodgson, and Alvin Roelke won second; the Richland County Brown Swiss Association team, Wisconsin, composed of D. A. Brace, Herman Schmitz, and Geo. Sary, won third.

The first, second, and third places in high individual scores by breeds were as follows: Holsteins, Chas. Craig, E. P. Sand, and J. N. Nimlos; Guernseys, Chas. Wilkins, Roy A. Atwood, and P. W. Kirkhofer; Jerseys, Walter Ofstedahl, Mrs. Ed. Kirkwood, and J. C. Piper; Ayrshires, Roy Seitz, John Geiger, and Joe Simmons; Brown Swiss, Geo. Kloser, D. A. Brace, and Fred O'Donnel.

Banner for breeder and exhibitor of Guernseys went to W. W. Marsh, Iowa.

Banner for breeder of Holsteins was tied between Minnesota Holstein Company and Hargrove and Arnold, Iowa.

Banner for exhibitor of Holsteins went to Hargrove and Arnold, Iowa.

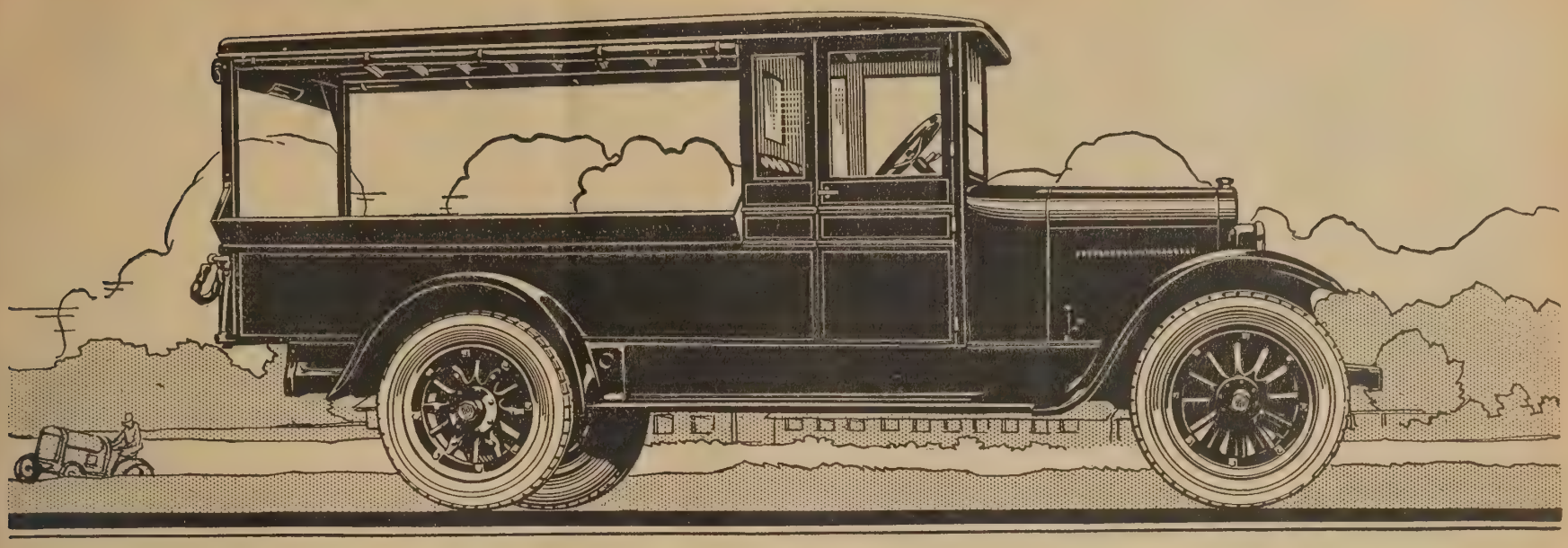
Banner for breeder and exhibitor of Jerseys went to Twin Oaks Farm, New Jersey.

Banner for breeder and exhibitor in Ayrshires went to Adam Seitz and Son, Wisconsin.

Banner for breeder and exhibitor of Brown Swiss went to The Hull Bros. Co., Ohio.

World Record Two-year-old

Minnesota has just brought out another world's record Holstein in Queen Bess Pietertje Ormsby, bred and owned by C. L. Spaulding. As a senior two-year-old she produced in 365 days 24,587.6 lbs. milk containing 895.63 lbs. fat (1,119.53 lbs. of butter).



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What Thanks Shall We Render?

Once upon a time there was an Indian named Squanto who was captured by wicked Spanish traders and was taken to Spain where he was sold as a slave. He suffered miserably while in Spain, because he was not accustomed to the country or the people, and he could not understand their language.

While in this plight, a kind-hearted Englishman found him who redeemed him from slavery and brought him back to his own country. For this favor Squanto was greatly indebted to the colonists and made up his mind he would do something to the early settlers for the Englishman's mercies. So when he visited the American colonies and saw what a hard time they had to keep from starving, he brought them corn and decided to teach them how to plant it.

With the help of chief Samoset, who had learned to speak a few words of English, Squanto soon taught the Pilgrims to plant corn and also taught them some of the Indian methods of game trapping. With the supply of corn that Squanto brought, together with game and fish, the colonists were able to live through the winter. Without the friendship of the Indians, they probably would not have survived.

Therefore we are thankful for the corn!

The next spring the Pilgrims lost no time in planting some of the corn in the way they had been taught by the Indians. When fall came, which was in the year 1621, they harvested their corn and were so glad to be alive and to have a store of food for the winter, that they decided to have a harvest festival.

John Carver, who was then governor of the colonies, proclaimed what was probably the first Thanksgiving Day. One of the writers of that day tells us of the event in the following words:

"Our harvest being gotten in, our governor sent four men on fowling, that we might after a more special manner rejoice together, after we had gathered the fruits of our labors. They four in one day killed as much fowle, as, with a little help besides, served the company almost a week."

It was just about a year ago, said some of the people of the colony, since Squanto taught us how to plant corn, and now we have a store of it for the winter. Let us give thanks for this harvest of corn.

In so far as our harvest is accomplished with less hardship and privation and is so much more bountiful, let us not in the rush of emergencies forget our thanksgiving, but "in thanksgiving let our requests be made known to God".

The earliest festivals after the toil of the harvest were mostly frolics. It was a time of feasting, of sports and trials of skill, of rest and relaxation. It was a day on which people listened to a long thanksgiving sermon and then celebrated at some harvest home.

The association of Thanksgiving Day with the home and the harvest, has grown to be a little obscure. With the farm people, who live more like their colonial ancestors, the day retains more of its old meaning. It is natural at this time of the year, when all the products of the farm are in greatest abundance, that we should fittingly celebrate the rewards of the past year's work.

We enjoy freedom, may worship God as we please, we have fine crops and good prices this year, and we have plenty for the coming winter. A day of thanksgiving for our homes on the soil comes into our year with the same fitness as it did in the day of the colonists, whose life and work were so familiar to our own. On the farm it is truly easy to link thoughts of God, home, and the bounty of nature with thoughts of praise and thanksgiving. Let us then be thankful for our homes on the soil.

In the city it is harder to see that the harvest is so closely bound up with prosperity and plenty. There Thanksgiving Day is generally accepted as a family holiday, or a day for reunions at the old homestead and for renewing old affections. They are so inclined to make "turkey day" a "gobble, gobble day". They, too, should consider the source of the plenty they are enjoying at this season of the year and, I think, might well give thanks for the farmer.—SOPHIA K. ORMOND.

Labor Before Thankfulness

Thanksgiving is here. We are ready for it. The pumpkins and sweet potatoes are in the driest part of the cellar. The apples, pears, potatoes, turnips, carrots, beets, celery and cabbage are all stored in their accustomed places. The canned fruits and vegetables fill up their shelves. The dried stuffs hang in the pantry. How blest we are to be able to grow and store such a wealth of food! In asmuch as the growing of this food and the canning and drying and storing of it represent so much labor, just in that much do we appreciate the meaning of Thanksgiving, the festival of the harvest time. Old Thanksgiving, we have run a race with you. But we are there on time. The silos full, the corn shucked, seed corn saved—all done according to schedule. When the family all come together for the Thanksgiving dinner we'll forget how the silo cutter acted up—forget how cold it was the morning we cut off the sweet potato vines, and how we hustled to can that last dozen quarts of green beans and how near the onions came to being frosted out there in the shed before we finally carried them down cellar. We'll forget all the little hardships and away down deep in our hearts be thankful for food and home and loved ones.

And may we remember that after all, life is much more than meat. Hours and hours through the summer months we spent preparing the food to sustain life and for our success we are thankful. Let us count hours better spent that we give to the betterment of life itself.—SALLIE RURANE.

Thanksgiving Dinner

Maybe you have not yet planned your Thanksgiving dinner and will be glad for a few suggestions. Of course you won't have just this—no one ever does follow directions exactly—but it is something to plan around:

Corn soup with crackers and celery
Turkey or chicken, roasted
Giblet gravy Cranberries
Creamed Onions
Glazed sweet potatoes Apple salad
Minced Pie or Pumpkin Pie
Cider Coffee

Some try to think up something new and novel for the holiday dinners but I am sure that most persons really enjoy best the old fashioned dinners with the experimenting on new foods left to other occasions.

For the corn soup just make a thin, rich, white sauce and add canned corn that has been simmered with a little onion. It looks pretty and tastes good to put in the top of the soup dish a few grains of nice white popped corn. The other items on the menu are just of the everyday sort that nearly all know how to prepare and that nearly always turn out well with little effort. The main thing at a holiday celebration is good cheer and plenty of it; it's the sauce that gives everything a good flavor.—LUCY THOMPSON.

To Brighten the House in Winter

Maybe back in your woods or along some hedgerow you have the very thing that would make a bright spot of color this winter in your living room.

Bittersweet is a lovely color and is quite lasting, too. It looks nice in vases or it is pretty pinned to a window curtain.

Another attractive thing I saw lately was a lamp bracket screwed in alongside a sunny window casing. This had been painted black to make it look like the wrought iron which is so fashionable just now and a flower pot—also painted black—had been set into the place where the lamp originally stood.

In a pot was a perfectly gorgeous bunch of Chinese lanterns, that wonderful bright thing that is accommodating enough to grow wild in some parts of the country. If you do not have it near you, try some in the garden next year. It is much prettier than the bittersweet but about the same high color.

Another nice thing for such a pot is Wandering Jew, the variety that shows a lavender tinge along the edge of the leaf. This grows very fast in water if you have a little dirt in the bottom or you can plant it in just the dirt alone.

I have not been successful in making flowers grow in painted pots but some say they do. Have any of you had any experience along this line? It would be nice to know if there is any special secret to it as the paint is so decorative but I have always had to use the painted pot simply as a jardinere and set a plain one into it. I asked a dear old German gardner

(Continued on page 583)

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2070—Becoming Design for the Mature Figure. Cut in sizes 36, 38, 40, 42, 44, 46, and 48 inches bust measure. Size 36 requires 3⅞ yards 40-inch material with 1⅛ yard 36-inch contrasting.

No. 2233—Youthful Design. Cut in sizes 14, 16 years, 36, 38, and 40 inches bust measure. Size 36 requires 3 yards of 40-inch material.

No. 1981—Charming Afternoon Dress. Cut in sizes 16 years, 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 requires 3⅝ yards of 40-inch material with ⅞ yard 20-inch contrasting.

No. 2221—Smart Dress for School. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2 yards 40-inch material with ⅜ yard 27-inch contrasting.

No. 2216—This Bathrobe's Easy to Make. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3¾ yards 48-inch material with 7¾ yards braid.

No. 1876—Girls' Slip. Cut in sizes 4, 6, 8, 10, 12, and 14 years. Size 8 requires 1¾ yards 36-inch material.

No. 1655—One-Piece Apron. Cut in one size only and requires 2¾ yards 27-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Aunt Ada's axioms: It's too bad that the quiet joys of home are not realized by some folks until those joys are fled.

More Popular Than Ever with All-Steel Bodies

In adopting *all-steel* bodies for both closed and open models, Overland has risen to even greater strength in public favor. After all, everybody knows that steel is far superior to wood; that steel will not warp or crack; that steel outlives wood many times over. *Steel is 30 times stronger than wood!*

Most motor car bodies are skeletons of wood with thin sheets of steel nailed outside. The modern *all-steel* body is a frame of steel covered with steel—*all* steel—welded into one-piece solidity and strength. Only coachwork built entirely of steel can be finished in hard-baked enamel—a finish that defies mud, dust, miles and the flight of time.

Everybody appreciates the great added safety of all-steel coachwork—and the lasting beauty of it. Overland's big power, its reliability, its fine comfort and great economy have always appealed to owners, because they know Overland is a "round trip" car—a car that gets you there and brings you back!

WILLYS-OVERLAND, INC., TOLEDO, OHIO
Willys-Overland Sales Co., Ltd., Toronto, Canada



OVERLAND



The shadow illustration in the background shows the difference in height between the one and four-buckle style of arctic.

How HOOD builds extra wear into this new shoe



Plainly, by building into this one, two and four buckle arctic the same extra wear that has made the Kattle King the wet weather choice of outdoor men. Note the thick extension sole. Run your hand over the soft, thick, wool lining. Compare the strength and appearance of the heavy cashmerette upper. This shoe is built for warmth as well as for wear and foot protection.

You should know the improvements HOOD is making in rubber footwear. The popular Red Boot — with its sole of the same tough rubber used in tire treads — red rubber upper practically proof against cracks and leaks. White Rock Rubbers — with their longer wear — for all the family.

This is a HOOD season — gain by it. Use the name HOOD as your buying guide. It is a time tested guarantee of design, materials and workmanship.

HOOD RUBBER PRODUCTS CO. Inc.
Watertown, Massachusetts

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RUBBER BOOTS AND SHOES - ARCTICS - CANVAS SHOES - ATHLETIC SHOES - HEELS AND SOLES - RUBBER SPECIALTIES - TIRES AND TUBES



Valspar on the Farm—

Mrs. Miller tells an interesting story!

MAGNOLIA, IOWA,
April 11, 1923.

Dear Sirs:—

I have often thought I would write to you of our experience using Valspar Varnish, and on opening the American Magazine I saw your page and decided that now was the time.

Some years ago, in the fall, I Valsparred different pieces of furniture. After giving them several coats of varnish, I had almost a pint left. My husband had just finished his fall plowing and had driven into the yard. He started to grease his plow with the axle grease, like all farmers do, saying as he did so, "What's the use? The pigs just lick it off. Now if we had a machinery shed, my cultivator, shovels, lister and plow would be bright and shiny next spring."

I said, "Let me put some of this on." I Valsparred cultivator, shovels, plow and riding lister. Had about one-half cup left, and for good luck started on one side of our new planter. After painting one seed box and side, the Valspar gave out. The next spring the implements stood out bright and shining. Also the planter has been out for four years in the sun, rain, and snow. The Valsparred side still looks new, but the other side shows its age.

Use Valspar on the farm to save the implements from rust and wear.

Hoping you can use this, I am

Respectfully yours,
(*Signed*) MRS. R. E. MILLER,
Magnolia, Iowa.

Mrs. Miller's letter is only one of thousands we have received from farmers and housewives telling us of the wonderful satisfaction given by Valspar. You, too, should use Valspar for waterproof protection or beautiful finish on either wood or metal surfaces indoors and out — in the house and dairy — on farm implements, tools, automobiles, incubators, brooders, chicken houses, etc.

Valspar is also made in a variety of beautiful colors — Valspar Varnish-Stains and Valspar-Enamels. Unequalled for floors, doors, walls, chairs and all farm equipment — in fact, wherever you want waterproof protection combined with lustrous beauty.

Largest Manufacturers of High Grade Varnishes in the World

VALENTINE'S
VALSPAR
The Varnish That Won't Turn White


Reg US Pat Off
The famous Valspar boiling water test

This Coupon is worth 20 to 60 Cents

VALENTINE & COMPANY, 460 Fourth Ave., New York

I enclose dealer's name and stamps — 20c apiece for each 40c sample can checked at right. (Only one sample each of Clear Valspar, Varnish-Stain and Enamel supplied per person at this special price.)

Valspar Instruction Booklet with Color Charts, 15c extra.

Print full mail address plainly.

Clear Valspar	☐
Valspar-Enamel Choose 1 Color	☐
Valspar-Stain Choose 1 Color	☐
Valspar Booklet	☐

Dealer's Name .....

Address .....

Your Name .....

S. F. P. 11-24

Address..... City.....



Salad Fork, Individual *Ice Cream Fork* *Orange or Grape Fruit Spoon* *Cold Meat Fork*

WITHOUT, bright winter sky. Within, glow of hearth . . . gayness of holly and mistletoe . . . laughter . . . and "1847 Rogers Bros." in keeping with life's happiest moments! Naturally this finest silverplate is selected for gifts at holidays, weddings and anniversaries. Constantly it graces well-set tables everywhere. For more than three-quarters of a century the most fastidious hostesses have appreciated its beauty and durability. To-day, as always, it represents the peak of good taste! The Anniversary pattern is illustrated. Your dealer has "1847 Rogers Bros." in a number of patterns and in a variety of pieces to encourage correct table setting.

INTERNATIONAL SILVER COMPANY, MERIDEN, CONN.

For further illustrations of the Anniversary and other patterns, write for folder X-100.

INTERNATIONAL SILVER CO.

about this one day and he said, "No, dey can't get der breath if de pores of de pot are all shut up mit paint."

English ivy is another thing that is lovely in winter. It is hardy, too. I saw a fine arrangement of it lately. There was a dining room wall with two regulation size windows, one in either end, and a high one in between leaving room underneath for a piece of furniture.

The man of the house built a narrow lattice that ran from the floor up the wall alongside the high window, across the top of it, and down the other side. On the floor at the foot of the lattice were two very large pots of ivy which in a few months grew so that they covered the entire lattice and made a wonderful decoration for the room. This room had a world of sunlight. Otherwise I think the ivy could not have grown on the floor.

English ivy, though hardy, is subject to leaf pests and now and then should be washed in soap suds on both sides of the leaf.—LUCY THOMPSON.

The Craze for Light Stockings

At a picnic the other day I heard two women talking. "If she could just take a good look at herself she would go right home and take off those stockings," said the first.

"It just looks," said the other, "as if she were trying to call attention to her ugly ankles."

I was a total stranger to nearly everyone there and did not know the woman in question but I could not help agreeing with the two who were criticizing her. Her ankles were very thick and she was wearing "sunburn" stockings, that is, stockings the color of a sunburned skin. With these she wore some kind of dark, low shoes and a dark dress and her ankles stood out like a warning signal; in fact, you noticed little else about her.

I have run the gamut of feeling on the subject of the craze for wearing light colored hose and while I have become somewhat reconciled to them, I think that on the average person they are inappropriate and unbecoming. Many have worn them suitably and becomingly but like all styles that are striking, they have been greatly abused.

If the feet and ankles are really lovely there is much leeway in the matter of dressing them but as few of us have such, it is better to go slow on the foot fads as they only call attention to our defects.

Did you know that most women are either knock-kneed or bow-legged? Figures prove it and that is why people who study such things tell us that it is better never to stand with the feet directly together but with one a trifle ahead of the other; leg and ankle defects show less this way.

The worst thing possible, of course, is to stand with the feet wide apart. Men manage it all right but for women it is gawky and ungraceful to the last degree. If to that posture you add ugly ankles, bow legs, and skin-colored stockings it "takes the biscuit" as I heard an old lady say the other day about her very fat neighbor who had suddenly appeared in a screaming green plaid dress.

A lot of us have a tendency to be too mouse-like and we would be much better off if sometimes we just let ourselves go and painted the kitchen chairs a bright blue or bought ourselves a splashy dress. Such things have their places in all our lives. So do colored stockings if they are of the right kind.

Nowdays you can buy lovely shoes in soft shades of gray and brown. They are as cheap and as conservative as black and with stockings to match they can readily "make" a costume. A lovely outfit is a dark dress or suit, gray shoes and stockings, a gray or dark hat, and a scarf of gray in either fur, silk, or chiffon. Don't be afraid of the colored stockings but just be sure they either match up with your costume or else that your ankles are sufficiently pretty to stand the attention they will get.—LUCY THOMPSON.

Mince Meat

Most women prefer to make their mince meat around butchering time as there are then all the odds and ends of meat that are hard to make use of in the ordinary ways and yet are ideal for mince meat. Here is a recipe I was given the other day with the highest recommendations:

Cook the meat scraps from butchering (both beef and pork are better than either alone) and allow them to cool, then grind through food chopper. To every half gallon of meat take the same amount, or a little more, of apples, grinding them also. For each half gallon of meat take a pound of seedless raisins and cook them tender. Add a quart of cherries and a pint of grape juice to each half pound of meat and then put in just enough vinegar to make it slightly sour. Cider may be used instead. Add ground spices to taste and sugar until it is as sweet as you like it.

This is good enough to use after standing just over night but longer standing improves it. If it is to be kept long, heat it through and pack it in sterilized jars.

Here is another "tried and true" recipe which Mrs. Nell B. Nichols calls Grandma's Mince Meat:

8 lbs. meat	4 lbs. suet
6 lbs. raisins	2 lbs. citron
6 lbs. currants	20 lbs. raw apples
12 lbs. sugar	2 gallons cider
12 tbs. cinnamon	4 tablespoons salt
8 tablespoons mace	4 tbs. grated nutmeg
4 tablespoons allspice	

Use either boiled beef or boiled pork for this and put through the food grinder with the currants, seedless raisins, citron, and apples. Add spices and sugar. Bring cider to boiling point and add the other ingredients. Boil one hour. Can while hot in sterilized fruit jars.—LUCY THOMPSON.

Thanksgiving Hymn

Come, ye thankful people, come
Raise the song of Harvest-Home!
All is safely gathered in,
Ere the winter-storm begin;
God, our Maker, doth provide
For our wants to be supplied;
Come to God's own temple, come,
Raise the song of Harvest-Home!

We ourselves are God's own field,
Fruit unto His praise to yield;
Wheat and tares together sown,
Unto joy or sorrow grown:
First the blade and then the ear,
Then the full corn shall appear;
Grant, O harvest Lord, that we
Wholesome grains and pure may be!

For the Lord our God shall come,
And shall take his harvest home;
From his field shall purge away
All that doth offend, that day;
Give his angels charge at last
In the fires the tares to cast,
But the fruitful ears to store
In His garner evermore.

"Then the church triumphant, come
Raise the song of Harvest-Home!
All are safely gathered in,
Free from sorrow, free from sin;
There forever purified,
In God's garner to abide;
Come, ten thousand angels, come
Raise the glorious Harvest-Home."
—Henry Alford.

Why Men are Bald

"Bald heads," philosophized the baldheaded man, "are caused by overworking the brain."

"Ha!" cried Mr. Henpeck. "That must be why women have no hair on their chins."—Everybody's Magazine.



SALES 2½ TIMES THOSE OF ANY OTHER BRAND



Certified Caps For the Holidays

Nine holiday designs await your orders. You have a choice of holly wreath design, the face of jolly Saint Nick, and a variety of "Merry Christmas" salutations; your own name, too, if you desire. Printed in red and green, the caps make an attractive and appropriate article for Christmas and New Year's.

And remember, each cap is a Certified—"the Cap with the RED Flap," with these distinctive features:

(1) the tough Red flap won't pull off;
(2) the Red flap is visible; you know it's there;
(3) no fork or knife is ever needed to lift the flap or to remove the cap—the RED Flap is grasped with ease.

If your jobber cannot supply you, write direct.

AMERICAN DAIRY SUPPLY Co.
SOLE MAKERS
Dept. R, WASHINGTON, D. C.

Color Your Butter

"Dandelion Butter Color" Gives That Golden June Shade which Brings Top Prices

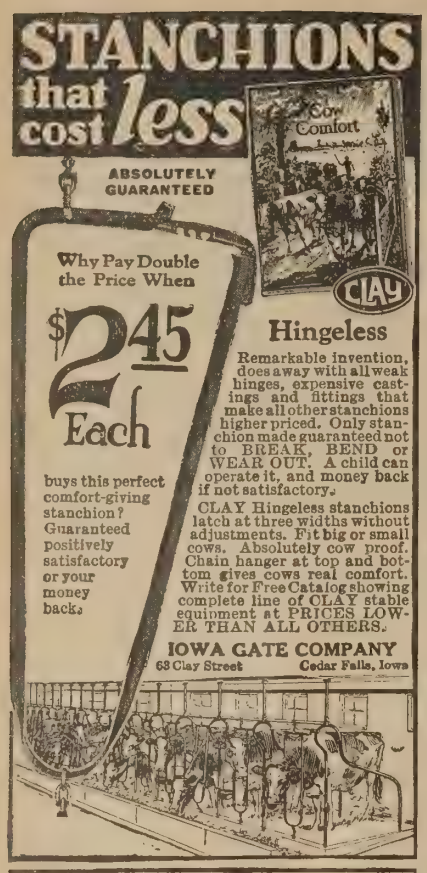


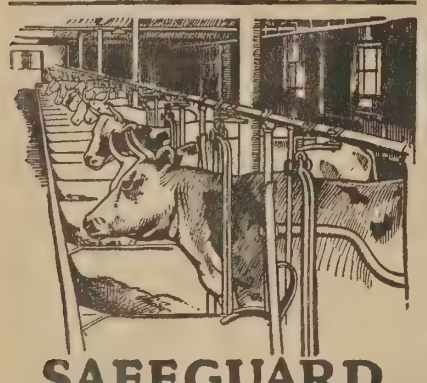
Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless and meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores. Write for free sample bottle.
Wells & Richardson Co., Burlington, Vt.



I MAKE THE BEST CHOCOLATE BARS
Mints and Chewing Gum. Be my agent. Everybody will buy from you. Write today. Free Samples.
MILTON GORDON, 169 Jackson St., Cincinnati, Ohio

KEEP TAB ON YOUR COWS
Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets.
Hoard's Dairyman, Fort Atkinson, Wisc.





SAFEGUARD
Your Cows During the Dry-Feeding Period,

IN WINTER the milk-making organs are subject to severe strain. Dry, rough feeds are harder to digest and assimilate than green pasturage.

To keep up the health standard and the milk yield as well, some outside aid is needed. Otherwise a profitable volume of milk is doubtful and disease is likely to creep in.

Kow-Kare is a sure winter aid to profitable dairying. It is a great medicine-tonic to build permanent vigor into the milk-making organs. A tablespoonful twice a day, one week in each month enables the cow to make the maximum of milk from her winter diet.

As a preventive or as a reliable treatment for Barrenness, Abortion, Retained Afterbirth, Scours, Garget, Milk Fever, Lost Appetite, etc. Kow-Kare is known and praised from Coast to Coast. No dairyman should be without it.

Let Kow-Kare help you insure your dairy profits this winter. Your feed dealer, general store or druggist can supply you. $1.25 and 65c packages. Order direct if dealer is not supplied.



Write us for free copy of our valuable book, *"The Home Cow Doctor."* Thousands of dairymen ask for it each year.

DAIRY ASSOCIATION CO., Inc.
Lyndonville, Vermont



REPAIR RUBBER FOOTWEAR at home. No equipment needed. Big REDDY Rubber Repair Kit with illustrated book showing how to repair torn and worn rubber footwear and 101 other uses for old inner tubes, make beautiful hand bags, belts, toolcases, etc. Complete kit $1.00 prepaid. Money back if not satisfied.
REDDY RUBBER CO.,
153 Marvin Ave., Akron, Ohio.

When writing advertisers please mention Hoard's Dairyman.

DAIRY MARKET NEWS

Cheese Prices for October

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese (style Twins) for the three large markets in October:

	Ave. price Oct. 1924	Oct. 1923
	Cts.	Cts.
Wisconsin Boards	18.4	24.5
Chicago	18.7	24.4
New York		26.0

Longhorns averaged 19.4 cents in October on the Wisconsin Boards as compared with 20.3 cents in September and 25.3 cents in October a year ago. The receipts of cheese at Chicago, New York, Boston, and Philadelphia totaled 175,129,249 lbs. for the first 10 months of the year as compared with 181,178,037 lbs. for the same period last year. Storage holdings at these markets on Nov. 1 were 23,002,976 lbs. as compared with 21,151,585 lbs. a year ago.

Milwaukee Milk Prices

The following prices are determined on for the month of October:

For the portion sold as fluid $2.45 per cwt. shall be paid for milk testing 3.5% fat.

For the portion manufactured $1.43 per cwt. shall be paid for 3.5% fat. Four cents added or subtracted for each one-tenth of one per cent variation, up or down from 3.5 fat test.

Seventy-one per cent of the total receipts was sold as fluid.—Milwaukee Co-operative Milk Producers.

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets appeared firm at slightly advanced prices during week ending Nov. 8. Trading was more or less quiet but prices were maintained. Production appeared to be decreasing. Distributing markets shared in primary market advances.

The average wholesale prices on American cheese, style Twins, for the week ending Nov. 8, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Nov. 8 1924	Nov. 1 1924	Nov. 8 1923
	Cts.	Cts.	Cts.
New York	20.5	20.0	25.0
Chicago	18.8	18.1	23.3
Boston	21.5	21.3	26.5
San Francisco	19.2	19.2	26.3
Wisconsin Boards	18.1	17.8	24.0

The receipts of cheese at these markets were 3,410,913 lbs. for the week as compared with 4,000,295 lbs. last week and 4,204,215 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets closed the week ending November 8 no more than steady. There continued to be a scarcity of fancy grades, but medium and undergrades were plentiful. Light supplies of fancy brought forth some demand for storage butter. Production appears to be at low point. Foreign demand negligible.

The average wholesale prices on 92-score butter for the week ending Nov. 8, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Nov. 8 1924	Nov. 1 1924	Nov. 8 1923
	Cts.	Cts.	Cts.
New York	40.5	40.0	52.2
Chicago	38.5	38.0	51.4
Philadelphia	40.7	40.2	52.3
Boston	39.0	39.0	51.4
San Francisco	37.9	36.5	48.1

The receipts of butter at these markets were 9,354,201 lbs. for the week as compared with 9,882,877 lbs. for last week and 10,064,004 lbs. a year ago.

MILWAUKEE, Nov. 12—Creamery, extra tubs, 38½c standards, 37c; extra firsts, 35@36c; firsts, 31@32c; seconds, 30@32c.

Eggs—Fresh gathered, firsts (new cases), including cases candled, 49@50c; miscellaneous lots, shippers' cases returned, candled, 46@48c; seconds, dirties, 30@31c; checks, 29@30c.

Cheese—American full cream, Twins, 18@18½c; Young Americans, 18½@19c; Longhorns, 19@19½c; Daisies, single, 19@19½c; squares, 19½@20c; American, 32c; Pimento, 34c; Swiss, 42c; Brick, fancy, 18@19c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

CHICAGO, Nov. 17—The butter market today ruled firm following an advance of ¾c on all scores. Demand and movement active with supplies limited. Buyers were bidding for desirable lots and in some instances were paying premiums over listed prices, especially on the 90 and 91 score cars. The centralized car market shared in the advance and firmness. Offerings were limited and dealers in most quarters were asking premiums. Storage centralized cars were firm with trading fair: Fresh butter—92 score, 40½c; 91 score, 30c; 90 score, 37¾c; 89 score, 36½c; 88 score, 34¾c; 87 score, 33¼c; 86 score, 31c. Centralized car lots—90 score, 38½c; 89 score, 37c; 88 score, 34½c.

FOND DU LAC. Wis., Nov. 4—Average cheese prices, majority of sales, f. o. b. shipping point: Single Daisies, 19½c; double Daisies, 19c; Longhorns, 19¼c; square prints, 21c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Nov. 15—Single Daisies, 18¼c. On Farmers' Call Board Nov. 14—Single Daisies, 18c; Longhorns, 18½c; square prints, 19¼c.

NEW YORK, Nov. 17—Butter quiet; receipts, 5,404 tubs; fresh supply, 55,113 tubs; creamery extras, 42c; specials, 42¼c.

Eggs—Firm; receipts, 3,196 cases; fresh supply, 80,552 cases; white, fancy, 81@84c; fresh firsts, 50@64c; western whites, 37@80c.

Every man is good, but not for everything.—Proverbs of Spain.

To Honor Great Cow

California Dairy Council plans to pay a special tribute at the Pacific Slope Dairy Show in Oakland, Calif., December 10—16 to Helm Veeman Woodcrest who has just completed a world's record for milk production. This Holstein began her world record production as a second calf heifer at the age of four years, eight months. In 365 days she produced 36,217.7 pounds milk and 1,003.86 pounds butterfat, the equivalent to 1,254.82 pounds butter, 80 per cent fat. She is owned by Frank Helm, California.

An illustration of this great cow will be found on page 542 of last week's issue.

Wisconsin Cheese Convention

Steady growth has characterized the Wisconsin Cheesemakers' Association. It seems a long stretch from the first convention held in Madison in 1893, through comparatively small meetings held all over the state in various town halls, down to the present assemblage of nearly a thousand each year in the Milwaukee auditorium, with a mammoth cheese display, and 5,000 square feet of machinery displays.

This year's convention will be held Dec. 10, 11, and 12. The United States Weather Bureau office at Madison reports for December 10th, during the last 20 years, only three years when there was more than a trace of snow on the ground, and usually none at all. Up to the last minute, therefore, every maker from Superior on the north to Monroe in the south should carry on his plans and preparations to come to Milwaukee. The usual reduced railroad one and one-half fare rates will also be in force on the certificate plan, from Dec. 6th and starting back not later than Dec. 12th.

Don't fail to send your cheese exhibits. Cheese judging begins Dec. 5th. Ship by express prepaid to Supt. J. W. Cross, Milwaukee, Auditorium Bldg., and mail him the entry blanks and express receipts at once.—J. L. SAMMIS, Secretary.

Green County Holstein Sale

The Holstein breeders of Green County held their semi-annual sale at Monroe, Wis., Nov. 6—7, selling 76 head for $10,605, an average of $139. As at previous sales, the bulls sold to better advantage than did the females. Sixteen of them averaged $171 and one of them, a son of North Star Joe Homestead from a 952-lb. 12-year-old cow, topped the sale at $360. He was consigned by Baltz Hoesly and purchased by F. B. Lucksinger, Wisconsin.

Eelles, Hogan, and Gibbons did the selling with Everson in the box.

The different classes of females averaged as follows: Two yearlings, $127; 25 two-year-olds, $129; 10 three-year-olds, $139; 23 older cows, $129.

Rock County Holstein Sale

Rock County Holstein breeders' semi-annual consignment sale, held at Janesville, Wis., Oct. 29, attracted a number of Illinois buyers. Sixty-two registered animals averaged $132 and in addition eleven grade cows and heifers sold for $1,145 with almost one-half of those sold going to the Northern Illinois dairymen.

Mack and Wieland did the selling with Everson in the box. Cattle of the different classes averaged as follows: Fourteen bulls, $107; 7 heifers under 2 years old, $106; 13 two-year-olds, $124; 12 three-year-olds, $151; 16 older cows, $155.

Alfalfa Seed Crop

Alfalfa seed production is estimated by the U. S. Department of Agriculture to be one-third larger than a year ago. September prices to producers are from $14 to $16 per hundred pounds for common alfalfa and $30 to $35 for Grimm. It is also reported that there will be an increase in sweet clover seed production. Prices to producers ranged from $8 to $10 per hundred pounds.

Carload Prices of Hay, Straw, and Feed, Nov. 8, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26 50	27.00	.....	21 00	21 25	25.00	26.00	24 00	19 50	23 00	17 50	24 00	....	17 00	
No. 1 Clover, mixed	20.00	.....	.....	19 00	17.75	.....	.....	.....	17 00	.....	14.50	.....	.....	15 00	.....
No. 1 Clover	.....	.....	.....	19.00	.....	.....	.....	.....	19.00	17.00	.....	20 50	.....	15 50	.....
No. 1 Alfalfa	.....	30 50	.....	.....		34 00	30 60	27 00	27 00	23 00	23 00	27 50	17 00	20 00	26 00
Standard Alfalfa		25 50		.....		30.00	28 00	25 50	.....	18 00	18 50	.....	15 50	17 50	25 00
No. 2 Alfalfa	.....	23 50	.....			.....	26.00	22.00	24.00	14 00	14 00	18.00	13 50	15.00	23.00
Oat Straw	13.00	16.00	14.00	12.50	13.50	.....	.....	.....	10.00	9.00	7.50	.....	7.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	31 00	.....	31 00	30 50	31 50	.....	.....	.....	29.00	27.25	24.50	.....			.....
Soft Winter	33.50	.....	33 00	31 50	35 00	.....	.....	.....	29 50	.....	.....	26.50	.....	.....	36.00
Hard Winter	.....	.....	32 50	31.00	...	33.00	.....	27 00	29.00	.....		26.00	23.00	.....	.....
WheatMiddlings		.....					.....						.....	.....	.....
Spring (Standard)	33.00	....	32 50	32 50	33.50	39.00	.....	.....	32 50	29 75	26.50	.....	.....	.....	.....
Soft Winter	40.25	.....	40 00	37 00	.....	42 00		.....	36 00	34.00	.....	.....	.....	.....	44.00
Hard Winter	.....	.....	.....	38.00	.....	38.00	.....	.....	36.00	.....	.....	32.00	30.00	.....	.....
Wheat Millrun	.....	.....	.....	.....	.....	37 00	.....	.....	.....	.....	28 00	.....	.....	.....	35.00
Rye Middlings	.....	.....	.....	32 00	.....		.....	.....	.....	.....	25 50	.....	.....	.....	.....
High Protein Meals															
Linseed	51 00		50 25	48 50	.....	.....			48 00	46 60	44 50	48 00	48 00	.....	48.00
Cottonseed (41%)	48.00	.....	47.00	44 25	.....	.....	.....	.....	42 50	44 00	45 50	41 50	.....	.....	.....
Cottonseed (36%)	45.25	.....	44.50	42 25	44.25	...	.....	36 50	40.50	42 00	42 00	39 00	.....	.....	.....
Tankage (60%)	.....		.....	.....	.....	.....	.....	41.00	.....	60 00	60.00	60 00	60 00	60.00	.....
No.1Alfalfa Meal	.....	.....	.....	.....	33 00	.....	.....	27 50	29 00	25 00	.....	25 00	25.00	.....	33.00
Gluten feed	45.95	.....	45 90	42.70	45 50	.....	.....	.....	41 70	38 80	42 00	.....	.....	.....	.....
Hominy feed (white)	44.00	.....	42.00	.....	44 00	48 00	.....	.....	40 00	39 00	36 50	40.00	38 00	.....	.....
Hominy feed (y'llow)	43.00	.....	42.00	.....	43 00	48.00	.....	.....	40 00	38 00	36 00	....	38 00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	41 00	.....	40 00	.....	.....	.....	52.00
Dried Beet pulp	.....	.....	.....	34.75	38.00	.....	.....	.....	.....	.....	32.00	.....	.....	.....	37.00

Georgia Pure Milk League

HOARD'S DAIRYMAN:—A state wide effort for the production and distribution of pure milk was instituted here today when more than 100 Georgia milk producers organized what will be known as the "Georgia Pure Milk League".

For several months there has been considerable dissatisfaction on the part of the consuming public with the milk supply furnished Atlanta. This culminated a few weeks ago when one of the leading baby specialists of the city stated that Atlanta's high baby death rate was unquestionably due to the low quality of the milk supply. At once a milk commission was appointed by the mayor to make a thorough investigation of the matter and suggest remedies for the situation. The new Georgia Pure Milk League is one answer to the problem—an answer from the producers themselves who are just as anxious to improve the quality of the milk as anybody.

Realizing that one of the main reasons for low quality milk is the lack of proper state and city laws governing the distribution and sale of milk, the newly formed league went on record at its first meeting as favoring the enactment of laws and regulations "protecting Georgia's milk supply against contamination, substitution, adulteration, and unfair market competition". Its members also pledged themselves to maintain the standard of the milk they produced by keeping their barns and cows in sanitary condition, cooling their milk as fast as drawn, and refraining from the use of preservatives.

Members of the new organization stated that they were not opposed to pasteurization, and adopted a resolution favoring pasteurization if it could be definitely shown by experts that the method would improve the quality of the milk.

The meeting was called by J. W. Key, a prominent Atlanta dairyman and member of the Milk Commission. W. F. Cox was elected president, C. C. Tuggle, vice-president; Harry Brown, secretary; and R. O. Waters, treasurer. A drive for members will be instituted in the near future not only among producers supplying Macon, Savannah, and the other large cities of Georgia, but along the "milk routes" supplying the leading cities of the section from a distance.

Georgia. J. H. REED.

Better Bulls in Indiana

The "better bulls special" dairy train over the Erie railroad in Northern Indiana reached 9,807 people with its program and distributed 28 Holstein bulls, 13 Guernseys, 11 Jerseys, and 1 Ayrshire in the territory covered.

This program, made possible through the co-operation of L. D. Fuller, agriculturist for the Erie railroad, the dairy breed associations, the Indiana agricultural extension service, dairymen, and business men, began at Decatur on October 20 and finished at Crown Point on November 1, making 12 stops in all.

Preliminary work setting up the field for the "better bulls special" was done by representatives of the breed associations and of the Erie railroad. In securing the bulls for the train no bull was included whose dam had a record of less than 400 pounds fat.

The train and equipment consisted of four express cars containing 23 Holstein bulls, 14 Jerseys, 8 Guernseys, and 1 Ayrshire bull. A large day coach in which to give lectures and show educational motion pictures, a flat car used as a demonstration platform, an agricultural exhibit car and a private car as a home for the workers completed the equipment.

The exhibit cars were open beginning at 9:30 a. m. The real program began at 1:30 in the afternoon and consisted of: 1, an explanation of the reasons for the special by Mr. T. M. Palmer representing the Erie railroad; 2, a discussion on the need for better feeding and breeding by R. D. Canan of the Indiana dairy extension service; 3, dairy cattle demonstrations by Hugh Van Pelt. The evening program starting at 7:30 consisted of motion pictures and short dairy discussions by Mr. Van Pelt and Mr. Canan. The evening program was concluded with a talk by H. H. Pratt, an official of the Erie Railroad Company.

It was generally considered by those in charge that the "better bulls special" was a very effective means of promoting a greater interest in dairy cattle improvement.

Indiana. R. D. CANAN.

The great secret of success in life is for a man to be ready when his opportunity comes.—DISRAELI.

Plowing

is one of the many jobs the McCormick-Deering does well

YOUR late fall and winter work would be a lot easier and more profitable all around if you were in partnership with a McCormick-Deering 2- or 3-plow tractor.

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With the McCormick-Deering 15-30 tractor one man plows 12 acres a day; with a 3-horse team he averages only 3 acres. *With the tractor he does 4 days' work in 1 day.*

With the tractor he plows deeper and better, and at the right time; heat and hard ground don't stop him; he saves the moisture and gets ahead of weeds. Between-times his tractor tackles the grain and corn harvest—runs the binders and the corn picker, fills the silo, runs the shredder or sheller—and then it finds all kinds of winter belt jobs ahead of spring's work.

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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Danny Applies Business Methods to Club Work

Foreword: You will remember that in the last chapter of the "Adventures of Daniel Dare", we left Danny and Jimmie Watkins working on their record books while Mr. Dare is working on his farm record book and taking inventory. The three are seated around the table. Danny has just finished the remark, "Come on, let's get at our record books." Now go ahead.

"Well, I've practically finished my record book for this year," said Jimmie. "Would you like to look at it, Danny? Perhaps it may help you."

"You bet I would," said Danny, and Jimmie handed over to Danny the record book in question. Danny opened the book and carefully examined the first page. Here are some of the things he found out.

Jimmie's corn patch was just exactly an acre in area and the soil was a mixture of clay and black loam with a clay subsoil. Jimmie had given his land a medium application of manure. The seed had been grown on his previous year's project. When tested, it gave 98% germination.

On May 31 Jimmie planted his corn with a two-horse planter. Alfalfa had been grown on the acre the previous year and pastured to hogs. The land had been fall plowed and from this year's crop Jimmie saved eighteen bushels of seed which he was drying in the attic. The total weight of the crop harvested this fall was 8,220 lbs. or 102 bushels to the acre.

Danny looked at the second page where was kept a neat record of the work. He noticed that Jimmie had charged fifteen cents an hour for his own time, ten cents for every horse hour, and twenty cents on hour for adult help. The instructions also told him to credit two dollars a year for the use of machinery and five dollars a year for the rent of the land and five dollars an acre for the loss of fertility in growing the crop. Danny spent some time studying this page while Jimmie proudly looked on over his shoulder. This is what Danny was studying so carefully:

Date	Kind of work	Number of Horses used	Hrs. at work	Total expense For Per hr.	For each job
Sept. 15	Selecting and storing	0	3	$.15	$ .45
Oct. 20	Plowing	2	7	.35	2.45
Jan. 31	Spreading manure	2	1	.35	.35
Mch. 1-6	Testing seed corn	0	5	.15	.75
May 24	Discing	2	2	.35	.70
May 30	Discing and dragging	2	3½	.35	1.23
May 31	Planting and rolling	2	1	.35	.35
June 10	Dragging	2	½	.35	.18
June 16	Cultivating	2	2	.35	.70
June 28	Cultivating	2	2½	.35	.88
July 8	Cultivating	2	2	.35	.70
	Total carried forward				$8.74

Then Danny turned over the page and came to the story. He read as follows:

"I have been a member of the K. K. K. boys for three years, this being my third. Each year I have had some success with my corn project. I have worked hard.

"In choosing the ground for my corn this year, I selected a piece of land that had been in alfalfa last year and pastured to hogs. Consequently, it was in pretty good condition to raise a crop of corn. While my corn crop from last year's project was still standing, I selected several bushels of good seed corn. This I cured in the attic on some corn trees that I had made. As I only needed about a bushel of seed for my acre of corn this year, I sold twelve bushels to my father at $3.00 a bushel. Good seed corn was selling in our community for $4.00 a bushel, but I made a discount to my father.

"When dad was doing some of his fall plowing, he let me have the team to plow my field. In the winter we hauled out several loads of manure and spread them on the plot which I had selected.

"Along in March I made a rag doll test of my seed corn and discovered that it tested 98%. This was very satisfactory. I used the rag doll method because I saw it described on the Junior Page of Hoard's Dairyman.

"I planted my acre in check rows about forty-two inches each way. Shortly after I had planted my corn, we had a heavy rain shower. This formed a crust on the soil, and to break it, I harrowed my field just as the corn began to come up. I was not bothered with insect pests to any extent this year. The only draw-back of an otherwise favorable season was the moisture. We had a little too much water during June and not enough later in the season.

"What I consider one of the most important factors in securing a large yield is the stand of corn. By this I mean having the right number of stalks in each hill, not too many and not too few. It is impossible to secure a large yield of corn if your field has a poor stand. It is almost impossible to secure a perfect stand of corn unless you plant one or two more kernels of corn in each hill than you want stalks as some stalks are sure to be broken by cultivation or wind and insect pests may also take some. The two main factors that tend to produce a poor stand of corn are poor soil and insect pests. Of these two, one is entirely under the control of the farmer, and the other is partially so.

"One thing that every farmer can and should do is to test his seed corn. He would find proof that his time was well repaid by the stand of corn he raised. Insect pests can be partially controlled by rotation of crops, poisoning, and other methods. Some loss may occur by drowning in some cases, but this can be avoided by planting only on well drained soil. Some increase in the yield can also be made by carefulness in selecting the seed corn.

"Last fall I showed some of my corn, three ten-ear samples, at the county fair and won first, fifth, and seventh prizes. My first prize sample won sweepstakes in the corn exhibits.

"I am raising yellow dent or Wisconsin No. 12 corn because yellow corn has vitamins in it that seem to be lacking in white corn. These vitamins are especially necessary in feeding live stock."

"That's quite a story, Jimmie," said Dan, as he turned over the page and came to the summary.

Receipts

Value of common stock	$ 80.00
Value of seed corn	45.00
Value of stalks, silage, or fodder	5.00
Prizes won	7.50
Total receipts	$137.50

Costs

Cost of labor (page 3)	$ 8.74
Rent of land	5.00
Loss of fertility	5.00
Cost of seed	
Rent of machinery	2.00
Other expenses	4.60
Total costs	$25.34
Net profit or loss	$112.16

"Well, I'll be jiggered! Say, you certainly did make a good profit on your acre of corn, didn't you? One hundred and twelve dollars and sixteen cents. Say, that's great. I am sure you will be the county champion again this year. I'm pulling for you anyhow, Jimmie."

"Thanks, Danny. I have worked hard on my project and I have worked hard on my record book, and I am hoping that I will win some honor on these things. But you know, Danny, that isn't all we work for in club work. Honor and glory are nice, but after all, there is a whole lot of satisfaction in doing a job well, and besides, every year I have learned something about raising corn."



NEBRASKA TEAM WINS DAIRY DEMONSTRATION CHAMPIONSHIP

Left to right—Raymond Nixon and Olin Brown. Don't overlook the cow; she was a champion Guernsey in the grade cow exhibit at the National. These boys were coached by their county agent, J. H. Claybaugh. L. I. Frisbie is state club leader.

"No, I don't think anybody in our club is going to beat you this year, Jimmie, but next year, look out. I am on your trail!"

"Go to it, Danny. Competition makes it more interesting. What are you going to write in your record book tonight?"

"Well, I haven't got much to put in, Jimmie, because I am just starting. I think it is a good plan to keep right up-to-date in your record book, don't you?"

"Yes, I do, Danny."

Danny opened his record book and with pen and ink copied some figures which he had put down in a note book, under the heading "Record of Work". He only made three entries as follows:

September 1, selecting seed corn	2 hrs.
September 6, making corn trees	4 hrs.
October 10, applying fertilizer	2 hrs.

"Is that all right, Jimmie?" Danny asked.

"Sure, that's a good start," was his answer.

Just then Mr. Dare looked up and said, "Well, boys, how are you coming with your record books? I have just about finished my job for tonight."

"So have we," said the boys.

"What do you suppose the inventory of this farm is?" Mr. Dare asked. "Twenty-three thousand, four hundred and sixty dollars," Mr. Dare went on, not waiting for the boys to even make a guess. "I never would have guessed it myself. Here take a look at my figures, boys. See if I'm correct."

Statement of Net Worth November 15, 1924

ASSETS

Live stock:		
Horses, 6	$ 605	
Cows, 15	2,000	
Other cattle, 15	616	
Hogs, 25	286	
Poultry, 200	209	
Machinery	1,523	
Feed, seed, and miscellaneous supplies	896	
Land, 156 acres at $140	23,400	
Life insurance, cash surrender value	309	
Money in the bank and in pocket	100	
Note due me from Jim Smith	75	
		$30,019

LIABILITIES

Mortgage due, 1924	$ 5,000	
Note in bank	1,500	
Unpaid store accounts	50	
		$6,550
Net worth		$23,460

"I'll say we've done an evening's work, don't you think so, boys? Why don't you two play a game of checkers? I want to show these figures to your mother, Danny."

And thus did Danny and his father and Jimmie Watkins apply business methods to farming.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

In the November 14th issue of Hoard's Dairyman you will find a further discussion of the following:

Why is the farm woodlot so important? Because three-fifths of the original timber of the United States is gone and we are using timber four times as fast as we are growing it, according to a recent report of the Forestry Service of the U. S. Department of Agriculture. Because the largest users of timber are the farmers. Because forest fires are a menace. In 1918 and 1919 alone nearly twenty million acres were destroyed by fire. (See article "Mr. Farmer, Spare that Tree".)

When was the first dairy association organized in Denmark? In 1882. Today there are more than 1,335 of these dairy associations in that country. Each of these operates a creamery with a membership of 100 to 200 patrons and using the milk from 800 to 1,600 cows.

How do these associations sell their butter? Denmark has eleven co-operative export associations doing a successful business. No butter is kept in storage but clean sales are made every week. (See article "Co-operation and Co-operative Creameries in Denmark".)

Who was Sophie 19th? This cow successfully defended the title of world's champion Jersey for several years. She gave 91,869 lbs. of milk containing 5,280.64 lbs. of butterfat

during a period of seven years. (See article "Study of Sophie 19th".)

What has become of this cow? She was recently slaughtered and her skeleton dedicated to science. The Bureau of Dairying is making a study to see if there is a relation between conformation and producing capacity.

Junior Letters

A Flower Alphabet

Hoard's Dairyman Juniors:—I am nine years old. My birthday was August 3.

My mother has 54 little chickens and 19 little turkeys. My father is milking fourteen cows now.

I am sending a poem we had to compose one day in school. I will be in the fifth grade at school next fall. Our school is out now. It was out the 9th of May.

The name of the poem is "A Flower Alphabet". Here it is:

A is for astragalus, purpling the hills.
B is for the buttercups, the sunshine of the o'erfills.
C is for cowslip that has a fragrant smell.
D is for daphia that thinks himself so swell.
E is for evening primrose so pink.
F is for fern that loves a drink.
G is for gladioli that look very nice.
H is for hollyhock that neve- blooms twice.
I is for Iris, its color is white.
J is for Jasmine that grows with all its might.
L is for lilacs that a pretty sight.
M is for Marigold, its color is yellow.
N is for nasturtium that looks very mellow.
O is for orange blossom that looks very sweet.
P is for peony that loves the heat.
Q is for quince, a yellow flower.
R is for Rose that grows in the bower.
S is for sego lily so nice.
T is for tulip that will grow twice.
U is for umbel that looks kind.
V is for violets that are hard to find.
Y is for yellow belle that looks very fine.
Z is for zinnias that look like roses of mine.

My address is Big Horn, Montana.

Marian Ickes.

The Farmer's Thanksgiving

Hoard's Dairyman Juniors:—I received your welcome letter and was glad to hear from you. Here is another poem I have made up. It has taken me some time, but at last I have finished it:

The earth is brown, the skies are gray, and the windy woods are bare,
The first white flakes of the wintry snow are afloat in the frosty air;
But the sparks fly up from the hickory log on the homestead's broad stone hearth,
And the windows shake and the rafters ring to the lads' and lassies' mirth.

The farmer's face is furrowed and worn and his looks are thin and white;
But his hand is steady, his voice is clear, and his eye is blue and bright
As he turns to look at his sweet old wife, who sits in her gown of gray,
With the cobweb 'kerchief and creamy frills she wore on her wedding day.

He bows his head to the laden board and his guests are silent all:
"Thanksgiving, Lord, for the sun and rain, and the fruit on the orchard wall;
For the silvery wheat and the golden corn, and the crown of a peaceful life—
The greatest blessing that Thou canst give, a true and loving wife!"

This white faced lover he bends to kiss her hand in its frills of grace
And the snowflakes click on the window-pane and the rafters ring above,
And the angels sing, at the gates of God,
The words of the farmer's love.

My address is Box No. 155, Smyrna, N. Y.,

Mary Elizabeth Boos.

A Letter Straight From Ireland

Hoard's Dairyman Juniors:—I have been interested in Hoard's Dairyman for about a year and especially liked reading the Juniors' columns. I received the creed, badge, and button some time ago.

I am 14 years old and 5 ft., 3 in. tall. I go to a day school, 4 miles distant. I cycle there every day, except when I ride a pony in the winter. The pony's name is Wisdom and is black with a white star. She is a good goer and jumper. I also have a smooth fox terrier called Joy Bells. She is a keen ratter. She is registered and will be in some shows this year.

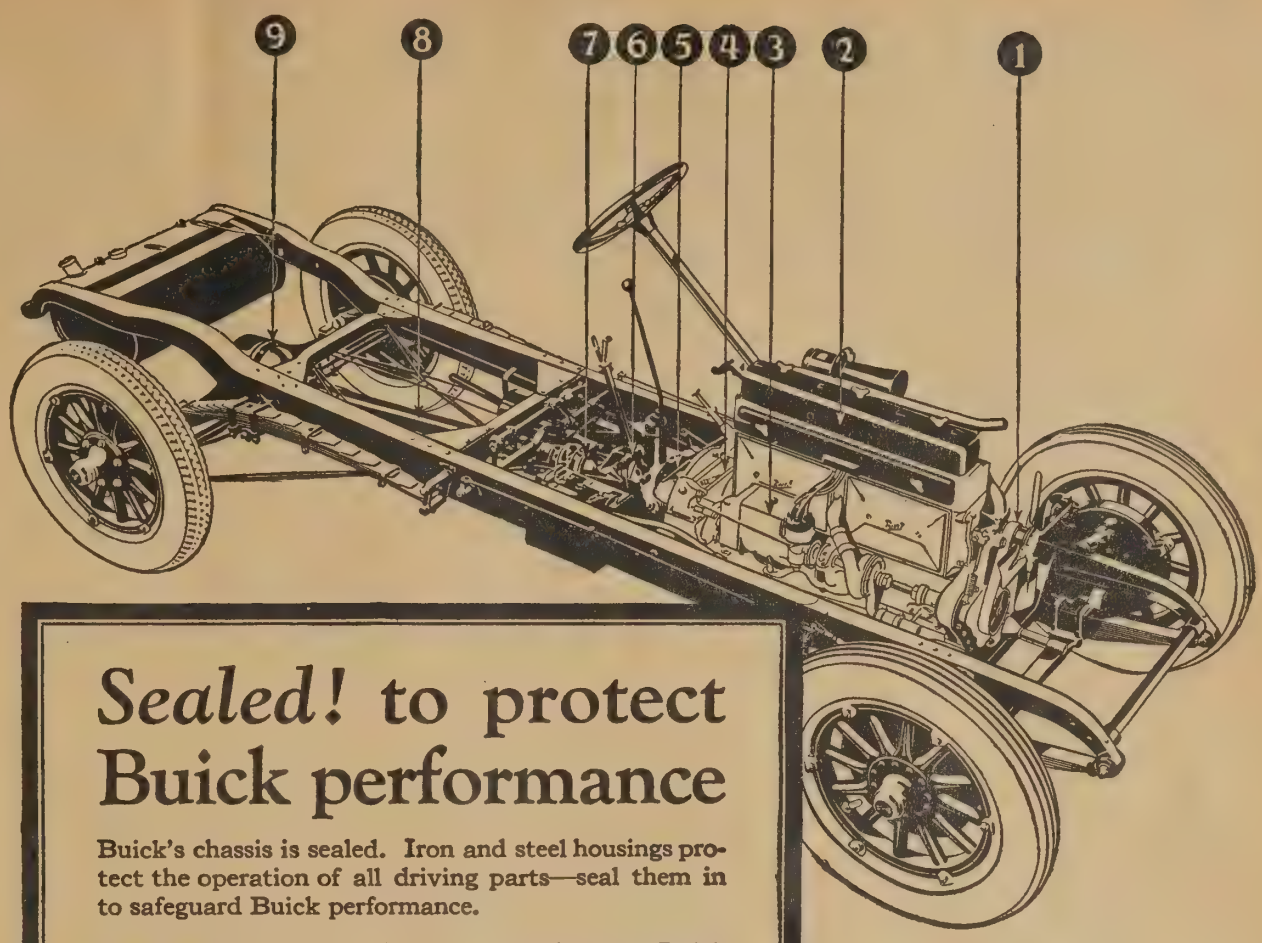
I live on a farm of about 2,000 acres but about 1,000 is mountain, but is good for grazing. I have two brothers and three sisters, all older than I. We keep Shorthorn cattle, horses, sheep, pigs, poultry, and bees. We have a Shorthorn bull that took second prize at Cork Show last year.

Is there any other junior whose birthday is the 5th of November? We get three farming papers, weekly. I like Hoard's Dairyman best!

There was a big camp here about a field from our house during the war, but was destroyed about two years ago.

I hope some of your juniors will write to me. My address is Ballyvonare, Butterant, Co. Cork, Ireland.

Peter Harold-Barry.



Sealed! to protect Buick performance

Buick's chassis is sealed. Iron and steel housings protect the operation of all driving parts—seal them in to safeguard Buick performance.

Some cars have some of this protection, but only Buick has a wall of defense continuous from fan hub to rear axle against road dirt, stones, water and loss of lubricant. Only Buick's close coordination of driving units and Buick's torque tube drive make possible this important improvement.

Here are the vital points at which Buick engineering provides this extra protection:

1. Fan Hub—Fan bearing totally enclosed—lubricated by its own gear pump.
2. Motor—Steel cover keeps water from short-circuiting spark plugs. Steel cover over valve-in-head mechanism keeps dust out, oil in.
3. Starter-Generator—Delco single-unit starter-generator completely housed in single housing. Starting gears housed with fly wheel.
4. Fly Wheel—Completely housed. Starting teeth protected from road damage and accumulation of mud and dirt.
5. Clutch—Multiple disc—completely housed.
6. Transmission—Completely protected. Shifting mechanism holes sealed.
7. Universal Joint—Completely encased in ball joint at front end of torque tube—lubricated automatically from transmission.
8. Propeller Shaft—Buick's third member drive, which is a torque tube, completely encloses the propeller shaft. It is impossible for road dirt to work from the shaft into the universal joint or rear axle.
9. Rear Axle—Floating type, totally enclosed in rear axle housing.

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From the Anderson Quartette

Hoard's Dairyman Juniors:—My brothers and sister received a letter from you and thank you very much for it. It was a very inspiring letter. We all received our creeds and my brothers, Julian and Alton, and my sister, Alice, received their badges and buttons. You asked when it is our birthdays. Alton and I were 10 years old May 24th, Julian was 11 years old on May 17th, and Alice was 12 years old yesterday (May 23rd).

We also have two little sisters. Verna was 8 years old April 17th and Margaret was 6 years on Oct. 15th. No, our cow tester did not get a calf club started. We never hear anything about it any more but we boys help take care of all of mother's calves and every time she sells one we each get 10c. She sold two beautiful heifer calves last spring that were shipped to Iowa for calf club work and she also sold a 2-year-old heifer that went out there. The little heifers sold for $125 each and the other one $200.

We have 2 little bulls here that are sold but not delivered yet. One is going to Minnesota but the other one is only going 1¾ miles from here. We have a herd of 13 pure-bred Guernsey cows. The highest cow for May gave 72.8 lbs. fat for the month and the whole herd averaged a little better than 43 lbs. We have the cutest little collie pup. Her name is Flossie.

Best wishes to all the juniors and the Junior Editor from we four juniors.

Wisconsin. Alvin Anderson.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

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STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

Registered Holstein cows, heifers and bulls for sale. Ormsby breeding. PHILIP LEHNER, Princeton, Wisconsin. 11-*

I am offering my entire herd of Holsteins for sale, 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

1,000 lb. yearly record two year old bull for sale. Prilly breeding, sires nearly all heifers and straight rumps. Retest. Price $500.00. O. WESTERHEIDE, New Douglas, Ill. 15-*

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Son of Matador Segis Walker from year record daughter of Johanna McKinley Segis for sale. He is three quarters brother to Matador Segis Walker 6th. 4 years old and guaranteed to be right in every way. We have 25 of his daughters in our herd which is federal accredited. GLEN RAMSEY, Fort Atkinson, Wisconsin. 18-4

For Sale—Fresh and springing T. B. tested Holsteins. JOSEPH FISHER, Janesville, Wis. 18-3

An Unusual Opportunity—going to discontinue farming and will dispose of entire herd of pure bred Holsteins at less than ½ of value. 1 bull, a winner of several first prizes and grand championships in 1923, 3 yearlings, 9 five to ten months old heifers, 20 two to five year old cows, many granddaughters of son of 37th. This herd has been bred up for years and will be sacrificed for immediate disposal. Write P. B. KNILANS, Mgr., Fort Atkinson, Wisconsin. 19-2

Two Seven weeks old registered, May Echo, Holstein heifers of thirty pound breeding. Price $65.00. M. H. VOLLAND, Baroda, Michigan.

Entire Holstein Herd—Ten registered cows and springing two year olds, three yearling heifers, three heifer calves. Herd sire. Healthy, straight and real producers. Owner renting. H. A. Turgasen, Mauston, Wisconsin.

For Sale—Ormsby bull, eighteen months, straight, mostly white, priced reasonably. LLOYD GROSS, Knapp, Wisconsin.

From Federal Accredited herd. Nice, well bred, registered Holstein bull calves from record dams. $40. WARD BROTHERS, Fort Atkinson, Wis. 19-2

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

Two Serviceable Guernsey bulls for sale whose dams and sires' dam average 705 lbs. fat. HOMER RUNDELL, Livingston, Wis. 18-*

175 Guernseys—Registered and high grade, sell in County Breeders Sale November 26. Send for catalog and for full information. H. W. GRISWOLD, West Salem, Wisconsin, Sale Mgr. 18-2

Registered Guernsey Bull Calves. A. R. breeding. Forty dollars up. B. McADAM, Mosinee, Wis. 15-spl

Jo Daviess County Guernseys. Grandson of King of Chilmark selling at auction Thursday, December 4th at Elizabeth, Illinois. Send for sale list. DONALD L. BRYSON, Secy. 19-2

Car of young tuberculin tested, well marked grade Guernsey springers. Will sell one or carload. LEE BURLINGHAM, Dousman, Wis. 19-2

35 Serviceable Guernsey bulls for sale. Priced to sell. JEFFERSON CO. GUERNSEY ASSOCIATION, Fort Atkinson, Wis. 19-Spl.

My Herd of Heavy Producing Guernseys. 6 registered cows, 9 high grade cows, good herd sire. Price $2,300 for herd. T. B. tested, a good, clean herd. C. J. FRIES, Ogdensburg, Wis. 19-2

12 Registered Guernseys and six good grades all recently tuberculin tested. Priced to sell. GAIL HANNAH, Bethel, Ohio.

A Two Year Old Jersey Bull bred in unusually heavy producing lines. His sire's dam, Passport, is a former world's champion milk producer of the breed. His dam, Lookout Valentine, is a Gold Medal cow. The average Register of Merit record of his dam and sire's dam is 16,227 pounds of milk and 795.8 pounds of fat. He does not have the finish of an Island bred bull, but his inheritance qualifies him to head a herd where Jerseys are kept for profitable production. We used him on a number of our best heifers last summer. Will be sold cheap. For picture, pedigree and price write MERIDALE FARMS, Meredith, N. Y.

Sunny Crest accredited Jersey bulls 7 to 17 months, $30 to $60. Few heifers. M. EMERSON & SON, Wheeler, Wisconsin. 19-Spl.

Four Registered Jerseys. Herd sire a prize winner at state fair, record dam. Two cows, one with record. Yearling heifer. Majesty and Noble of Oaklands breeding. BERT McREYNOLDS, Normal, Ill. 19-2

Jerseys—All ages, both sex. B. KENEDY, New Lisbon, Wis.

For Sale—Two pure bred Brown Swiss bulls and one bred heifer. Also my herd bull. A. L. BURDEN, Coleman, Mich. 19-2

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

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Pure Bred Toulouse Geese, mammoth size. NELLIE CAVANAUGH, Neshkoro, Wis. 19-4

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Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

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Baled Hay—We are now baling our surplus alfalfa. If you would like a carload place your order now. Market prices. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 16-4

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Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

Alfalfa Hay for sale. JOHN MICHELS, Peebles, Fond du Lac Co., Wisconsin.

Alfalfa Hay For Sale—Write for delivered price, ALBERT MILLER & COMPANY., 192 No. Clark St., Chicago, Ill., or call our representative LaCrosse, Wisconsin. Telephone 851-A. 19-*

TOBACCO

Homespun Tobacco—Chewing, five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Kentucky. 16-4

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50. Smoking 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and recipe free. FARMERS UNION, Paducah, Kentucky. 17-4

Homespun Tobacco—Chewing five pounds, $1.50; ten, $2.50; smoking, five pounds, $1.25; ten, $2.00; pipe free, pay when received, satisfaction guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 19-4

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—United Milking Machine in good operating condition. Address BOX 355, Care Hoard's Dairyman.

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Two-Unit Hinman Milker complete. Bought new one year ago. $65.00. WALTER ANDERSON, 4900 S. Broadway, Englewood, Colo.

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Limited time only—Eureka Dishwasher will be sent for $1.00 down balance ten days. Immediate delivery and satisfaction. Introductory offer only. THE EUREKA COMPANY, Hawarden, Iowa.

Want to buy Melotte Cream Separator. T. THOMPSON, Wadena, Iowa.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

Factory Representative Wanted—We want a man well acquainted with the Dairy Trade to represent us in this territory, taking orders for "DA-ZONE", a high grade dairy sterilizer and disinfectant. No deliveries, no collections. Exclusive territory protecting you on all repeat orders. Write for Free Sample Outfit and full particulars. DA-ZONE LABORATORIES, 1623 East 31st St., Kansas City, Mo.

Liberal Commission to Farmers in Wisconsin. Take orders for Superior Agriculture Limestone. Easy and profitable. Write WISCONSIN LIMESTONE CO., National Exchange Bank Bldg., Waukesha, Wis. 19-2

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Patent-Sense—Free book for inventors seeking largest deserved profits. Write LACEY & LACEY, 753, F. St., Washington, D. C. Established 1869. 19-52

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

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Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. BECKENNELS, K-28, Herrick, Ill. 18-4

Pedigreed Scotch Puppies. Wonderful workers. MARY GODFREY, Lancaster, Wisconsin.

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Hampshire sows and gilts. Best type. Boars. Priced low for early sale. EDGAR BUZZELL, Delavan, Wisconsin. 18-2

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For Sale—145 acre dairy farm. 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

Improved farms in Minnesota and North Dakota can be purchased on 34 years time, without any cash payment, by persons who have their own help, equipment and livestock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minn. 18-*

Southern Dairy Farm, year round grazing, well stocked and equipped. Good market, good road, attractive home; pecans and fruit trees. P. O. BOX 1081, Mobile, Ala. 18-2

160 acre dairy farm right on the Jefferson Highway in upper Minnesota. Well improved, excellent soil, good drainage—only $41.50 per acre, $500 cash, balance at 3%. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, St. Paul, Minnesota. 18-4

For Sale—460 acres; 40 miles from Chicago. Farm consists of 200 acres of fertile, heavy producing, black soil, under high state of cultivation, 260 acres Blue Grass and Oak Timber. 2 modern dwellings; 2 other good dwellings; 2 concrete silos; barn and other outbuildings erected in 1922. Full equipment of new farm utensils. Ideal plant for feeding and dairying. You would have to see this farm to appreciate its value. R. W. COOPER, Owner, Gilberts, Ill. 15-spl.

Come to Minnesota—Low priced land, productive soil, sure crops, good climate, cheap fuel, finest roads. For free map and literature write Oscar H. SMITH, Immigration Commissioner, Dept. 676, State Capitol, St. Paul, Minn.

130 acre improved farm, Macon County, Mo. $50.00 per acre or trade for Registered Jersey cows worth $2,500.00, balance long time, easy terms. L. A. WRIGHT, Atlanta, Mo. 19-2

For Sale or Rent—300 acre farm. Modern buildings. Established milk route with all equipment. A very good chance to make money but I have to depend on hired help. Farm will produce under proper management $20,000.00 per year. Anyone having help that will work can make good money. I will furnish everything to the right party. FRANK MILES, Rhinelander, Wis. 19-2.

Farm For Sale—100 acres in thriving village. Modern buildings, double house, electricity and city water. Short drive to Buffalo and Niagara Falls, on cement pavement. Only 12,000. CLAUDE PERSONS, Owner, Delevan, N. Y. 19-2

168 Acres, Modern house, valuable timber; 19 cows, heifers, registered bull cost $1,000, 4 sound, young horses, 200 poultry, hogs, milking machine, cream separator, implements, hay, grain, potatoes, vegetables, etc., included; 1923 income $5,100, should run $6,500 this year; handy city, beautiful lake nearby, hunting, fishing, splendid advantages; 90 acres cultivation, trout stream, wire fenced pasture, estimate 250,000 ft. valuable timber; fruit, berries, nuts, buildings, insured $9,000, 11 room house, bath, acetylene lights, furnace, beautiful valley view; 78 foot basement barn, silo, creamery, milk, poultry houses, 5 room tenant house, other buildings. For immediate sale, $12,500 for all, only $3,000 needed. A. B. Crute, 95 Chenango St., Binghamton, N. Y.

High-class 117-acre dairy farm, on beautiful lake, completely modern new home, hardwood finish, screened porch, bath, running water, etc.,; barn with drinking cups, stanchions, etc., Silo, garage, chicken house, corn crib and other buildings. At Hutchinson, Minnesota, easy driving distance Minneapolis. Offered for sale far below value. Write FREDERIKSEN, 100 Kasota Building, Minneapolis.

For Sale—Highly improved dairy farm of 100 acres in the best dairy section of south central Kansas and in the midst of oil development. Has hollow tile dairy barn 36x70, two small horse barns, cement silo 16x40, good five room house, garage and other outbuildings. This is good land and will sell it for just about what improvements cost five years ago. For price, terms and further description address W. A. WILKIE, Cucamonga Ave., Pomona, Calif.

$500 Monthly from 345 acre farm. Modern home, 43 cows, crops, 4 horses, heifers, bull, tractor, auto truck, valuable machinery, vehicles, included by retiring owner; milk for 20 months averaged over $500; mammoth fields, 160 ton hay crop, others in proportion; valuable woodland, 1,000 sugar maples and outfit; choice fruit; 11 room house, cement cellar, bath, furnace, lighting plants; 100-ft. cement basement barn, individual drinking buckets, other barns and outbldgs., 6 room farm house. Exceptional value at $18,000; part cash. Picture and details pg. 48 big Bargain Catalog, Illus. money making farms and business chances. Free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

"Wisconsin Opportunities—Free Wisconsin bulletins. Soil climate, crops. IMMIGRATION DIVISION, Wisconsin Dept. of Agriculture, Capitol 25, Madison, Wisconsin." 19-8

Wisconsin Dairy Farm near Milwaukee. First class buildings, excellent soil, high test dairy herd; real cash bargain. E. HAWKS, 4406 Pabst Avenue, Milwaukee, Wisconsin.

345 Acre Farm, modern house, tractor, 4 horses, 43 cows, heifers, bull, auto truck, valuable machinery, vehicles, hay, corn, potatoes, barley, buckwheat, etc., included by retiring owner.; milk for 20 months averaged over $500; mammoth fields, 160 ton hay crop, others in proportion; valuable woodland, 1,000 sugar maples and outfit; choice fruit; 11 room house, cement cellar, bath, furnace, lighting plant; 100 ft. cement basement barn, individual drinking buckets, other barns and out buildings, 6 room farm house. Exceptional value at $18,000, part cash. W. H. MAYNARD, Canastota, N. Y.

Profit Producing Dairy Farm. Herd, equipment and business at sacrifice to raise money for other business. A rare bargain, ideal location, all year pasture, healthful, mild climate, pure water. For particulars write owner. O. G. KOLBERG, Eagle Lake, Texas.

FOR RENT

For Rent dairy farm, 200 acres on shares 50-50 basis, Southern Michigan near South Bend, on cement road. Barn for 30 cows. Prefer Guernseys. Possession March 1st. Address BOX 346, Care Hoard's Dairyman. 18-4

For Rent—On shares, well equipped dairy farm, 140 acres, near Minneapolis. Modern barn, silo, six room house, high grade stock, consolidated school less than ¼ mile away. Address STATION A, Box 1195, Lincoln, Neb.

For Rent—A fine dairy farm to party who can furnish a herd of Jerseys. Address: ARCADIA FARM, Pass Christian, Miss.

WANTED TO RENT

Wanted to Rent—Good sized farm near city, preferrably with milk route or would consider partnership with working partner for large proposition. Ample means and references. Address BOX 343, Care Hoard's Dairyman. 18-2

Experienced dairyman farmer and hog raiser wishes to rent on shares or manage large dairy farm. Must give best references. Address BOX 353, Care Hoard's Dairyman.

Two Hollanders want to run dairy farm on share basis. Both experienced herdsman. Farm must be equipped with stock and tools. Want to deal with honest man. Address BOX 357, Care Hoard's Dairyman.

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

Milk and Cream testing. State license. Our service will interest you. THE NAPERVILLE LABORATORY, Naperville, Ill. 18-2

For Sale—10 gross Dacro milk bottles, 1,000 used cork brick, very cheap. J. F. MYERS, Box 462, Massillon, O.

Milkmen—Use Fiske's Loose Leaf Route Book. Write for description. P. BAKER FISKE, Attleboro, Massachusetts. 19-3

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10



Advertising in this department is 7c per word. Remit in advance.

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted—Position as creamery superintendent, fifteen years experience in manufacture of all dairy products. Address BOX 352, Care Hoard's Dairyman. 18-2

Position Wanted—Experienced dairy farm manager wants position on up-to-date dairy farm. Willing to take a real proposition on a profit sharing business. Thoroughly experienced in purchasing herds and erecting modern buildings. Now managing the largest dairy farm on eastern shore of Maryland producing certified milk. Address W. A. SIMPKINS, Salisbury, Maryland. 18-*

Farm Manager desires position on dairy farm. Married. References. 20 years experience. J. HENRY, 31 N. Duke St., York, Pa.

Wanted—Position as farm manager—no oroposition too large—20 years experience in farm management and County Agent work—graduate of Wisconsin College of Agriculture (long course), experienced breeder of Holsteins. Have bred and developed some of the good cows of the breed. Capable of handling all branches of farming, including cattle, hogs, poultry, orchards, fruit and general field crops. American, age 40, married, salary and commission or straight salary. Address BOX 359, Care Hoard's Dairyman. 19-3

Position Wanted—Herdsman. Efficient fitter for production, show or sale. Experienced in A. R. O. work and practical farmer. Good, dependable Scotchman with best of references. Address BOX 354, Care Hoard's Dairyman. 19-spl.

Experienced farmer desires position on dairy farm as working foreman or manager. Age 41, small family. Will go anywhere. State wages. Address BOX 356, Care Hoard's Dairyman.

Milking Machine Operator and calf man wants job. Single, aged 45,. Go anywhere. Give particulars. State wages. Address BOX 358, Care Hoard's Dairyman.

Single Man wants position. Experienced test cow feeder and milker, also producing grade A milk. $60 a month. BOX 77, Merrillan, Wis.

Position Wanted as herdsman. Single. Experienced in feeding, breeding, calf raising, A. R. O. work. References. K. SKUJA, care B. Levison, 38 W. 59th St., New York City.

Ready Now—Farm manager, herdsman, 36, life experience, short course, one year cow testing. Retail milk, buttermaking, farm machinery. Married, one child. FARMER, 1168 Stuart St., Green Bay, Wis.

Position Wanted—By young married man to work in creamery, cheese factory or dairy. No experience, willing to learn. For further reference address BOX 360, Care Hoard's Dairyman.

Position Wanted—as herdsman or farm manager. Twenty years experience in all branches. First class references. Give full particulars. Address BOX 351, Care Hoard's Dairyman. 19-2

HELP WANTED

Fireman, Brakeman, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 17-4

Wanted—Single man to feed and care for Guernsey herd and assist in milk house bottling milk for city delivery. One mile from town. State wages expected and give reference in first letter. EDWARD C. ROSSEY, New London, Wisconsin. 18-2

Mail Service Employees Needed. For instructions write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 16-*

Wanted—Good reliable single man good milker for dairy farm. Steady with good habits. CRYSTAL SPRING STOCK FARM, Littlestown, Pa. 18-2

Wanted—Experienced man to take care of our test cows. Must be a first class fitter and feeder for high records. One successful in the past and capable of producing results now. Must be of good address, sober and willing to work in co-operation with herdsman. Copy of references and full particulars in first letter. Place near Pittsburgh. Guernsey herd. BEECHWOOD FARMS, Sharpsburg, Pa. 18-2

Wanted—Man to help milk and take charge of milk house, must know how to make butter and cultured buttermilk. PARKHILL DAIRY, Benton, Ill. 19-2

Wanted—Experienced man for milk route. Must have good reference. Steady place, wages $75 per month with room and board free. Chance for advancement to right man. Give age and reference in first letter. Write to BOX 907, Lewistown, Mont.

Wanted—An elderly man to care for a small dairy. WILL EVANS, Antioch, Ill.

Wanted—Experienced farmer on modern dairy farm. State experience, wages and give reference. MEURER'S STOCK FARM, Genoa City, Wis. 19-2

Wanted—At once, married herdsman. Guernseys. State experience, wages, and number of children first letter. House, garden, wood and milk furnished. D. C. Kloss, Mesilla Park, New Mexico.

Wanted—Reliable married man on dairy farm. Wife assist with milking. JOHN SCHEUERMAN, Algonquin, Illinois.

Wanted Herdsman—Dependable, young married man, without children preferred, or children under school age. Must be capable of developing a herd of Holsteins. Will furnish separate house, some milk, neat, potatoes and fuel. State wages expected, age, size, nationality, size and age of family. R. 1, BOX 19. Granite Falls, Minn.

Wanted—Two or three young married men to work on Jersey dairy farm. Good houses, artesian water, good climate. Address: ARCADIA FARM, Pass Christian, Miss.

Wanted—Single man for general farm work; with good habits and references. Guernsey cattle, good equipment. HARVEY LONGLEY, Dousman, Wisconsin. 19-spl

Wisconsin Dairy Conference

The first meeting of the Wisconsin Dairy Conference was held in the Assembly Chamber at the State Capitol in Madison on the evening of Nov. 6. The meeting was well attended and some fourteen different state dairy organizations were represented by official delegates.

This is not a new organization but s merely a gathering of the several state organizations under the auspices of the State Dairymen's Association, from which have sprung all the others. The Dairymen's Association dedicated one session of its annual meeting to this purpose and it has been requested to continue this in the future. The principal address was delivered by E. R. McIntyre on "The Interdependence of the various Branches of the Dairy Industry".

Mr. McIntyre depreciated the creating of more organization. "The need is far more urgent than this," he declared. "It is to unite what organizations we now have and weld them into an informal congress to perpetuate all that is fine and upright, and to advocate the economical and practical movements, as well as to confer on defensive tactics." He stressed the necessity of greater efficiency and economy of production, better marketing and salesmanship, and the improvement of quality.

Following this address was a round able discussion by representatives of he several organizations present. This prepared the way for an energetic display of what needs most emphasis for the improvement of dairying and the solution of the problems confronting the various organizations. The interchange of opinion and emphasis brought home to those present that each phase of the industry has its pressing problems and it is doubtful whether anyone of them is paramount to all others.

At the conclusion of the session the Secretary of the State Dairymen's Association was requested to call a similar conference at the time of its next annual meeting. A committee was also appointed to outline the future plans and policy of the conference. This committee reported, in part, as follows:

"It is the consensus of opinion of all sane, practical dairy workers that *economy*, *uniformity*, and *quality* of production, processing, and distribution are essential points for the success of the dairy industry. * * * To accomplish these purposes we propose to create a working unity between the agencies which have the necessary information as to how success has been achieved in these things and the agricultural press of the state that can give large publicity to this information. We also believe that closer co-operation can be secured through the various dairy groups and we ask that other meetings be called by the State Dairymen's Association to discuss specific problems of the industry. We also suggest that the officers of the allied units be asked to issue quarterly statements on the condition and outlook of their various organizations."

Selling Milk

"Salesmanship is rapidly growing in importance because the big problem in industry now is not how to produce merchandise, but how to sell merchandise," says M. O. Maughan, secretary of the National Dairy Council, in a little booklet entitled, "Manual for Milk Salesmen".

The purpose of the booklet is to help those interested in the distribution of milk to apply modern salesmanship methods in their work.

The author discusses the subject from the standpoint of: 1, Knowing your merchandise (milk); 2, Knowing your customer; 3, Knowing yourself and the development of a successful personality; and 4, Making the sale.

To the salesman of milk Mr. Maughan says: "Your merchandise is the greatest article on sale today because it is the most important article of food known to mankind. Know your merchandise thoroughly.

"You should know the needs of your customer and work towards the filling of these needs.

"An attractive business getting salesman is a combination of three factors: 1, Neat, clean, attractive dress; 2, a healthy body; 3, a combination of certain qualities, such as enthusiasm, honesty, tact, self-command, courtesy, cheerfulness, promptness, memory, sympathy, and initiative.

"In selling goods the mind of the buyer must be led through four steps which are: 1, favorable attention; 2, favorable interest; 3, favorable desire; and 4, favorable action."

The booklet is well written, concise, neatly bound, and would be helpful to milk salesmen.

Meeting National Dairy Council

In accordance with the by-laws, notice is hereby given that the annual meeting of the National Dairy Council will be held at the Auditorium Hotel in the city of Chicago, Illinois, on December 4th, 1924, at 10 A. M.

M. O. MAUGHAN, Secretary.

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Make Independent Farmers



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NO MONEY DOWN—Pay first installment next September; final payment in the fall of 1926.

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Roof Frame Given With all orders for shipment before Feb. 1st. It will pay you to order early.

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Let us send you "Minerals for Farm Animals." Write for copy. U-Cop-Co Special Steam Bone Mineral Meal is a complete mineral feed, without useless drugs or filler. Made under open formula.

Sold direct at bargain prices:

500 lbs. $15.00
½ ton... 27.50
Ton..... 50.00

[Agents Wanted]

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Of course you want bigger earnings from your dairy cows, hogs and poultry. The question is *"how to get them?"* This new Jamesway Book may have exactly the answer you need.

It is full of practical ideas, plans and suggestions that other farmers are using—*today*. It is written from experience, and contains only the kind of information that practical dairymen and farmers want. How to improve an old barn—How to get the right floor plan—How to save labor—How to handle the feeding and cleaning jobs, etc.

Send for this book. It is free. It tells you "how" you can install any Jamesway Equipment, steel stanchions, stalls, water cups, carriers, etc.—right now—on our "PAY-FROM-INCREASED-EARNINGS" Plan. Right in your county there is a Jamesway Man, who is able, capable and eager to help you. Our book will tell you how. Write today. Mail the coupon this instant to Dept. A

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How to get a good dairy barn.
How to remodel an old barn.
How to get good ventilation.
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How to give cows pasture comfort in the barn.
How to judge a stanchion.
How to feed cows for profit.
How to insure "safety first" with the bull.
How to make the cleaning job easy.
How to water your cows in the barn.
How to have better hogs and bigger litters.
How to make more money from your hens.
How Jamesway "Pay-from-Earnings" Plan pays for your equipment as you use it.
And many other helpful pointers on cow, sow and hen problems.

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WILL OFFER — AT THEIR SALE PAVILION

FOND DU LAC, WIS., NOV. 24 and 25

125 Head of Choice, Purebred Holsteins

All tuberculin tested with a 60-day retest, majority from Federal Accredited Herds. We will offer 50 cows fresh or close springers. 50 yearling heifers and heifer calves. Some of the offerings are: A 25-lb. daughter of a 30-lb. cow bred to a 37-lb. sire. A 22-lb. granddaughter of 37th, due soon to a grandsire of 37th; she is a show cow. We will also offer a number of cows with A. R. O. and C. T. A. records. We will offer 25 choice bulls many of them herd headers. 1 yearling from a 27-lb. Jr. 2-year-old. 1 11-mo.-old grandson of Count, dam 27.50 butter. The first prize bull calf at Plymouth and 5th at the National. 1 25-lb. bull, 2nd dam 33 lbs. 3 26-lb. bulls.

Don't miss this sale where the breeders stand back of the cattle.

S. H. BIRD, Manager — SOUTH BYRON, WISCONSIN

Dr. J. Van Houten Dispersal!

VALLEY CITY
N. DAKOTA
DEC. 6th, 1924

75 PURE BRED HOLSTEINS

Over half are daughters of the Grand Champion bull. *Sir Korndyke Ormsby Piebe 3rd*, whose dam and sire's dam are 30-lb., 1000-lb. daughters of Sir P. O. M., one of the only two sires having sixteen 1000-lb. daughters. Junior sire is by *Marathon Ormsby from a 30-lb. 3-year-old.* TYPE, BREEDING AND PRODUCTION IN THIS OFFERING!

Federal Accredited Herd—Send for Descriptive Folder

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DO YOU WANT HIGH CLASS, HEALTHY, GRADE GUERNSEYS? We are offering you a choice of 200 head right now,—some of them close springers. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself. Every animal sold, guaranteed to be as represented.

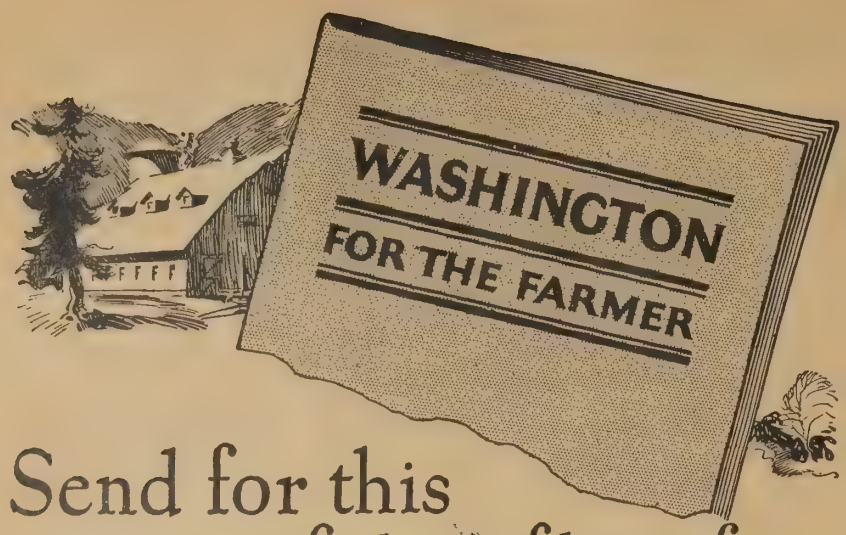
RIVERVIEW FARM, Lloyd L. Dewey — MUKWONAGO, WISCONSIN
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KEEP TAB ON YOUR COWS

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets.
Hoard's Dairyman, Fort Atkinson, Wisc.

SALE ANNOUNCEMENTS

Nov. 21-22—Arden—Mineral Springs Fall Sale, St. Paul, Minn. 70 Registered and 100 Grade Holsteins.
Nov. 24-25—Holsteins. Fond du Lac County Holstein Breeders' Sale at Fond du Lac, Wis. S. H. Bird, Manager.
Nov. 25—Walworth Co. Holstein Breeders' Sale, Elkhorn, Wis. Ben Bachhuber, Sec.
Nov. 25—Holsteins. Dispersal Sale of H. H. & R. C. Walker at Du Quoin State Fair Grounds, Du Quoin, Ill.
Nov. 25—Holstein Dispersal. A. J. Miller, New Richmond, Wis.
Nov. 26—Holsteins. Washington County Holstein Breeders' Sale, West Bend, Wis. Paul A. Horlamus, Sec'y.
Nov. 26—Holstein Dispersal, Oak Hill Stock Farm, John H. Smith, Prop., Crown Pt., Ind
Nov. 26—Guernseys. The LaCrosse County Guernsey Breeders' Annual Fall Sale of Registered and Grade Guernseys at West Salem, Wis. H. W. Griswold, Sale Manager.
Dec. 2—Holsteins. Western Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Webster City, Secretary.
Dec. 3—Holsteins. Eastern Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Sec., Webster City.
Dec. 4—Guernseys. Jo Daviess Co. Guernsey Ass'n., Elizabeth, Ill.
Dec. 6—Holsteins. Dr. J. Van Houten Dispersal, Valley City, N. D.
Dec. 9—Holsteins. Dispersal of J. M. Kelley herd at Baraboo, Wis. Frances Darcey, Sales Manager.
Dec. 11—Holsteins. Bacon—Enright Annual Sale, Grand Forks, N. D.



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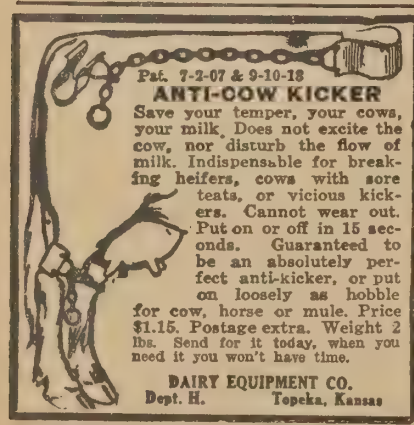
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Look to the Grinders. They do the work! Bowsher's Cone-Shape grinders are the correct principle in Feed Mill construction. They mean larger grinding surface close to center of Shaft; thus More Capacity, Lighter Draft, Longer Life.
"Desire to express my appreciation of the long-lasting, trouble-proof Bowsher. Have used a No. 4 ten years with less than One Dollar per year for repairs." *R. W. Watt, Jacobsburg, O.*
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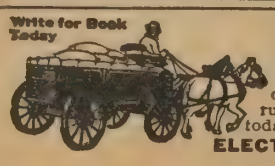
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SILVER BLACK FOXES
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The Whatcom Plan of Testing

(Continued from page 586)

day, then he leaves a memorandum with the sample bottles and the herd record sheet. In nearly every case, during the first year's work, members who have missed the tester on his first trip to deliver the bottles have met him the next day when he calls for the samples. This resulted last year in 95 per cent of the members feeding balanced rations recommended by Mr. Anderson.

Half of the members on this route will be given assistance during Monday morning and a part of the afternoon, leaving only time enough for the tester to deliver the sample bottle to the other half. This makes it so that by Monday evening all the members on the route will have their sample bottles and will be ready and reminded to take the test during the next two milkings.

Tuesday morning arrives and the tester proceeds over the same route collecting all the bottles and the field sheets which have been made out by the dairymen, giving the names of the cows, amount with weight of all feed used by individual animals, and any remarks which might help the tester in analyzing his month's work. During Tuesday the tester will give suggestions and help to the other half of the dairymen to whom he delivered the sample bottles the day before but did not help them with their problems. In this manner all of the members of the association on the route are taken care of each month. This same process is repeated on the other nine routes.

One of the questions coming to mind at this time is, how does the tester have time to analyze the work, and following is the answer. After the tester receives the general information from the dairyman on a cow as recorded on a field sheet, the test is run, the field sheet is filled in further detail, and then sent to the state extension service office.

The test is run by Mr. Anderson personally at a local creamery, and he makes all records of the test. If he is overcrowded, he has the permission of the Board of Directors to hire someone to help him with the record work, but he always reads the samples to the one who is helping him.

In order that he may have the information to do extension work, the compiling and analyzing of the records are made for him at the office of the extension service and a barn sheet made out.

Armed with all this information the "tester" or "assistant county agent" has a definite basis upon which to work. Each month he calls upon every member of the association for samples; as explained above, he helps him with his immediate dairy problems because he has analyzed and knows the condition of his herd. The actual extension work requires seven days during each month while the balance of the time is spent by the tester in doing regular testing work.

It was mentioned before that the association had solved the problem of finances, at least to the place where each member can receive not only the testing work, but the services of a dairy specialist. The annual report of the Board of Directors shows that the association received for testing dues $2,030.75 last year with expenses for testing, salary, auto expense, and stationery, amounting to $1,943.80.

Mr. Anderson, the dual-purpose tester, receives $175.00 per month divided as follows: From the association as salary, $85.00; from the association as auto expenses, $40.00 per month and from the State College of Washington, extension service as assistant county agent of Whatcom County, $50.00. This makes $1,500 per year from the association and $600 from the extension service, or a total of $2,100 per year.

The annual report of the directors shows that the association received for testing dues, $2,030.75 during the year 1923. If one figures the receipts at $1.25 per cow on the 1,725 cows for the entire year, it would amount to $2,156.75, but it must be taken into consideration that not all the 1,725 cows were in for the whole year. When the association began work for the year 1923 there were only 1,100 cows signed up, but when they finished testing for the month of December, 1923, there were 1,725 cows on the books. As the payments per cow are made every six months, this would explain the difference in receipts and cows.

Since the association pays from its funds the sum of $1,500 per year for the tester and his car and the annual report showed an annual expenditure of association funds amounting to $1,943.80, the difference, or $443.80, was charged to stationery, supplies, and testing. However, by a vote of the association, their secretary was given a fine gold watch, as appreciation for his splendid work during the year, in taking care of the clerical work outside of the records.

Now it requires the help of a clerk in the extension office to work out the barn sheets and reports, but this clerk is likewise a dual-purpose one, for while she is working on the records of the 1,725 cows, she is also gathering data for cost accounting in the dairy industry of the state. As she is part time clerk, her salary of $40.00 per month must be charged to the work of an assistant county agent clerk.

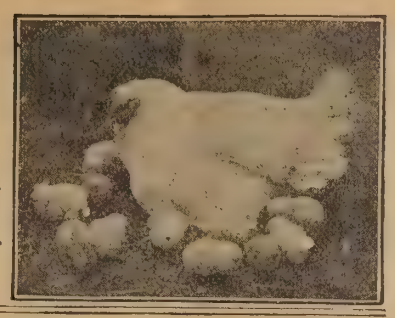
Dairymen are satisfied with the "Whatcom plan", for when 1,500 out of the 1,725 cows are signed up with little or no effort, that is proof that the "test is being put into testing".

"I belonged to the old plan organized in 1917 and liked it very much, but the present plan suits me better. I get more service; it keeps me in closer contact with what my cows are doing and helps me place proven sires," said K. B. Aker.

Whatcom County has an association which gives more service at a cheaper rate than any tried out in the state of Washington before, and because the tester is backed by the extension service and able to help the dairymen each month, they are anxious to continue with the new type.

[EDITOR'S NOTE:—Members of cow testing associations will observe that under the "Whatcom Plan" the state is providing the clerical work in compiling and entering the records on each cow and making out the monthly report to each farmer. In addition it pays over a third of the tester's salary. It is doubtful whether many states would find it possible to finance this plan for any considerable number of association. It will also be observed that each farmer takes his own weights and samples, which he records on the barn sheet together with the feed consumed. Where the farmers will do this work it simplifies the method, reduces cost, and will fulfill the basic purpose of cow testing. However, such records cannot be considered other than private herd records and are of doubtful authenticity for publicity purposes.]

POULTRY On The DAIRY FARM



J. B. HAYES

Paralysis

A condition or disease is somewhat prevalent at the present time and has not been entirely explained. Work is still in progress, some preventive measures have been adopted, and progress has been made but not sufficiently to answer the questions that are raised. Most of the lack of definite information results from a wide variety of possible causes that are found from a post-mortem examination.

Several names have been applied to this condition but is most commonly called paralysis. Hens are affected in the greatest number during the winter but it may also be apparent in half grown young chicks on range. In many cases thrifty cockerels or pullets weighing four to four and a half pounds will be the victims.

In mature hens there seems to be three possible causes. The first is caused by worms which, under some conditions, will cause a condition called limberneck, while under other systems of management the hen will lose entire control of her legs. A post-mortem examination will show the round worms or tape worms to be present in large numbers.

A second form is induced by the hen becoming egg bound. When the egg stops in the oviduct and the hen is unable to dislodge it, she will show the same symptoms. Removing her from the rest of the flock to a quiet place where feed can be decreased will often act as a cure. Feeding freely of fresh, succulent green feed is especially advised. The introduction of sweet oil through the vent will generally allow the egg to be produced.

The third form, showing exactly the same symptoms, seems to have no explanation. Lack of direct sunlight has been suggested as one possible cause but has not been efficiently tested to be conclusively proved. Possible lack of some mineral in the feed has been another thought but a long continued series of blood tests will necessarily have to precede the acceptance of this reason.

Fairly satisfactory results have been obtained by the observance of a strict quarantine of the old stock. Exception is taken to the statement that old and young stock should not have access to the same range by farm flock owners who are successfully rearing that way each year. It is just another example of locking the door after the horse is stolen, for one never knows when trouble will appear. A chick range away from the old stock is not an impossible problem on any farm and is well worth the added trouble in the increased gain obtained.

With an increased size of the farm flock from year to year, and the larger number of chicks which must be brooded to replace the laying flock, one will find that the possibility of disease will become greater. Even if a separate range, for brooding the chicks at least, is not used, the ground where the greatest congestion results should be tilled, treated with lime, and seeded. Prevention is worth more than all the treatments that have been advocated.

At the present time a special tobacco dust has been placed on the market for use with poultry. This material is used at the rate of two pounds to one hundred pounds of mash and is incorporated at the time of mixing the dry ingredients. This possibly offers an advantage over the former method of steeping in hot water and mixing with a moist mash. Even with this mixture, Epsom salts should be given to the flock at regular periods.

For individual cases where the fowl has paralysis that is induced by round or tape worms, oil of turpentine is the treatment. This means handling each fowl but will obtain results. One teaspoon of oil of turpentine can be introduced directly into the crop by means of a tube and funnel and is followed by an equal amount of castor oil in about three hours. In many cases, the turpentine and oil are mixed and administered at the same time.

The possibilities of direct sunlight are not known for such cases. Beneficial results of direct sunlight into the house through open windows is noted each day and should be followed. It is only by opening the windows and allowing light to enter that results are obtained, for filtering through glass removes or excludes the helping rays. In any portion of the country there are very few times when it is inadvisable to open the windows for at least an hour or more during the middle of the day.

Because of the rather low value per hen which is attached to poultry, one has been advised time after time to kill each sick or ailing fowl. In some cases this procedure is advisable but the average flock owner is too well satisfied with that step. Rather than calling a halt at this point, he should be more interested in discovering what is back of the scene that causes the trouble.

Every experiment station is equipped with facilities to aid in this work, generally without cost. If one ships a live specimen that is sick, a laboratory examination will reveal the cause and control measures can be recommended. Getting the jump on an outbreak is half of the job.

Most of the paralysis can be controlled by proper attention to the chick range to prevent worms, tobacco or similar treatment to old or young stock when placed in winter quarters, liberal supply of direct sunlight into a clean, well ventilated coop, and adoption of sanitary measures with the flock.

Sprouting Oats for 800 Hens

Is it practical and profitable to sprout oats for 800 laying pullets? Would dried beet pulp fed in small quantities be good for laying pullets? We fed first class finely cut ensilage advantageously one winter. What is the feeding analysis of beet pulp?

Greencastle, Ind. R. A. M.

The deciding factor in sprouting oats for 800 pullets is primarily a question of labor involved and the possibility of obtaining some other form of green feed that will be equally satisfactory. The use of sprouted oats is advisable occasionally during the winter as a change for the flock. However, one will find that quite a bit of equipment and quite a bit of time will be needed in order to properly handle the amount of material which will be required.

In cases where a person can obtain cabbage, mangels, or material like that, they can be used just as satisfactorily and require considerably less time in preparation than the sprouting of oats.

Dried beet pulp has never been used to any great extent for poultry feeding. In cases where this material is used it would be necessary to moisten it before feeding and one must be careful in moistening to see that it is just damp and not soggy and saturated. Any sloppy feed of that sort that is given to a flock is very apt to do more harm than good in that it is very apt to throw the entire flock out of condition. The analysis of beet pulp, according to Henry and Morrison, is 91.8 dry matter, 4.6 crude fibre, and 0.7 true protein. In consideration of green feed it is a succulent material and the vitamins that one is primarily interested in rather than the food value of the material.

We have quite a few persons that are using corn silage to good advantage as a form of green feed for the birds. The feeding of this material this year may be rather a problem though because of the quality of silage which has been obtained from the immature corn which was placed in the silos.

It is generally possible to obtain cabbage at a price low enough to warrant purchasing that or to obtain mangels or sugar beets as a constant supply of green feed with the sprouted oats used as sort of a change occasionally.

Bulletins of the Week

A Statistical Study of Egg Production in Four Breeds of the Domestic Fowl, by L. C. Dunn. Bulletin 122, Storrs Experiment Station, Storrs, Conn.

Jellies, Jams, Marmalades, and Pickles, by Dorothy A. Loudon and Hazel B. Spencer. Circular 64, North Dakota Extension Division, Agricultural College, N. D.

Farm Management Principles for Southwestern Minnesota, by W. L. Cavert and G. A. Pond by Special Bulletin 89, Minnesota Agricultural Extension Division, University Farm, St. Paul, Minn.

Own Your Feed Factory
Save $10 to $20 per ton

With these two wonderful new patented machines you can duplicate any high priced balanced ration mixed feed on the market and save half their cost.



The Masticator Hammer Mill is the only mill that makes fine meal of cornstalk, corn in shuck, alfalfa, peavines, oats, any kind of grain or any other roughage. Operated with 8 H. P. engine. The Maclellan Batch Mixer makes a perfect mix in one minute.

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Masticator Hammer Mill $150.00
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Production and Individuality
must be combined in the breeding of your next sire. Our success in the showrings of the U. S. and the production of our herd insures you getting individuals from us that will make money for you. We are now offering six young bulls eight to fourteen months of age sired by HOWIE'S KING OF HEARTS or CAVALIER'S LORD ROSEBERRY. 6 bred heifers and 10 young cows. Write for prices and information.
ADAM SEITZ & SONS WAUKESHA, WIS.

Ayrcroft Farm Ayrshires
have again proven themselves winners in the show ring as well as producers. Write for what you want. Herd Federal Accredited.
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Pure Bred Ayrshire Cattle For Sale
Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.
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Good type and production are found in our herd. A special price on young stock. Write for prices.
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BULL BORN APRIL 18, 1924
Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.
Herd Federally Accredited—Certificate No. 10241.
Price: $125.00
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High Producing Ayrshires
AT FARMERS' PRICES
Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.
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FOR SALE
Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
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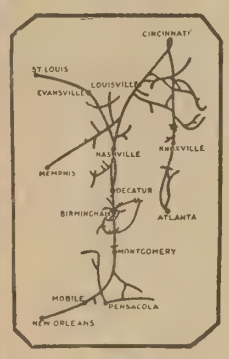


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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Ore.	Tillamook 2	Oct.	G. J.	65.5	J. Fox
Minn.	So. Dodge 2	"	G. S.	55.3	J. M. Peterson
"	Northrop	"	R. H.	71.4	R. McLaughlin
"	Blue Earth 1	"	R. G.	85.2	A. C. Nelson
Va.	Pr. William	"	G. H.	64.4	Wheeler & Adams
Ill.	Kane Co. 2	"	G. H.	75.8	Hoyt & Bower Bros.
Wash.	King Co.	"	G. J.	69.7	J. Cochrane
S. D.	Sioux Falls	"	R. H.	53.5	State Pen.
Utah	Wells.-College Ward	"	R. H.	61.6	J. H. Schenk
Colo.	Mesa Co.	"	H.	74.9	F. Clymer
Penn.	Lehigh Co.	"	R. H.	68.6	Sancona Farms
Iowa	Des Moines	"	G. H.	52.5	E. P. Dugan
"	Colesburg-Two Co.	"		62.5	Brockmeier & Schaub
Mich.	Branch Co.	"	G. G.	68.1	O. W. Butcher
"	Musk.-Ravena	"	G. J.	62.4	Alberts & Huston
"	Montcalm	"	R. H.	63.7	Town Bros.
"	Macomb 2	Sept.	G. H.	69.2	W. Ball
"	N. Eaton	"	R. H.	64.2	G. T. Warren
"	Livingston	Oct.	R. H.	64.9	A. F. Morgan
"	E. Montcalm	"	G. H.	52.0	P. Carey
"	Alp.-Leer	"	G. G.	52.2	W. Christopersen
"	Berrien Co.	"	G. G.	61.0	H. L. Young
"	No. Kent	"	R. G.	49.2	E. Weller
Wis.	Oakwood	Sept.	G. H.	49.0	A. Mahr
"	Musk.-Vernon	Oct.	G. H.	71.8	B. A. Clark
"	Verona	"	G. H.	53.9	A. J. Detturler
"	Farmington	"	R. G.	65.6	O. Frauenheim
"	Cedarburg-Grafton	"	R. H.	61.0	E. Wegmann
"	Alto Metomen	"	R. H.	50.4	Wilsie Bros.
"	Coon Valley	"	G. G.	63.3	L. O. Brye
"	Sheldon	"	G. H.	39.8	F. Jerick
"	Holmen	"	R. H.	67.1	J. Engaas
"	Shaw.-Marathon	"	G. H.	68.5	A. J. McVay
"	Independence	"	G. H.	60.9	Mrs. A. Sylla
"	Cen. Rusk	"		65.0	
"	Cen. Monroe	"	G. G.	54.7	E. Gajewski
"	W. Salem-Bangor	"	G. G.	67.0	J. H. Meyer
"	Westby Jer.	"	R. J.	67.0	O. Olson
"	Iola	"	G. G.	52.1	J. K. Severson
"	Tennyson-Dickeyville	"	G. J.	46.7	C. Winkler
"	Lancaster	"	G. J.	67.9	Meyer & Foltz
"	Mon.-Gil.-Modena	"	G. J.	64.0	A. K. Larson
"	Bloomer 1	"	G. H.	75.1	J. Wirth
"	Ham. Baldwin	"	G. G.	58.8	Mrs. M. Reitan
"	Spr. Valley	"	G. G.	63.9	R. Rudesill
"	Colfax	"	R. H.	53.6	C. C. Jensen
"	Alma-Coch.	"	R. H.	58.0	G. Marks & Son
"	Denmark	"	G. H.	54.7	L. Sebaetz
"	Reeds.-La Valle	"	G. H.	55.5	R. Streich
"	Pew.-Sussex	"	R. G.	61.2	G. McKerrow & Son
"	Bruce	"	R. A.	57.1	O. A. Bjerke & Sons
"	Luck-Miltown	"	G. G.	66.7	J. Hanson
"	Elroy	"	G. H.	52.9	C. Blaser

Association Notes by Testers

Jackson Co. F. B., Minn.: One silo was erected, making 22 silos on 28 farms. One barn was completely remodeled and modernly equipped. Several barns underwent a few changes so as to hold more cattle. A new tile milk house and garage combined were erected this summer. Five new separators replaced old ones. One new electric motor and one gas motor were installed.—C. W. Meyer.

Prince William Co., Va.: The 553 cows tested last month averaged 565 lbs. milk, 22.4 lbs. fat; 68 cows made over 40 lbs. fat and 15 over 50 lbs. The corn crop is very poor in this section. Most dairymen are putting all their corn in the silo and a good many did not get their silos filled. Market milk sold for $2.38 per cwt. and retailed for 12—14c per quart last month.—T. T. Curtis.

Kane Co. No. 2, Ill.: The record of the high cow for last month was made on alfalfa pasture supplemented by 6 lbs. of grain. Sixteen grade Holsteins owned by Lewis Riedelsperger made an average of 985 lbs. milk, 33.1 lbs. fat, the best for last month. Of the 637 cows tested, 140 were dry and 68 fresh since the last test. The average production was 726 lbs. milk, 25.3 lbs. fat. Profit per cow in milk $10.91; feed cost per 100 lbs. milk, 88c. Forty-one cows made 40 or more lbs. fat. The 25 grade and pure-bred Holsteins owned by Henry Butt completed their second association year with an average of 8,326 lbs. milk, 295 lbs. fat, compared with 7,470 lbs. milk, 256 lbs. fat last year, a gain of 856 lbs. milk and 39 lbs. fat in one year. The herd was the same as last year with the addition of a few two-year-old heifers the second year. At the average price of milk the gain on two cows more than paid the association dues. Fourteen pure-bred Holsteins owned by C. E. Warford & Son have just completed a year's work with an average of 12,226 lbs. milk, 415 lbs. fat, Eight of the 14 were under full age. None produced less than 10,000 lbs. milk and ten made over 365 lbs. fat apiece. Homstafa Queen Ormsby, a junior three-year-old, made 15,082 lbs. milk and 540 lbs. fat in the association year. A five-year-old grade Holstein owned by Oliver E. Pritchard produced 16,672 lbs. milk, 649.4 lbs. fat in ten months at a return above feed cost of $319.04.—W. K. Bullock.

King Co., Wash.: Due to the continued milk war in Seattle, market milk continued at the same price which condenseries paid. The feeling between the factions seems to be increasing, with no indications of settlement in sight. Prices of hay and grain continue at a high level, with a possible exception of alfalfa hay which may be weakening a little. In October market milk sold for $1.85 per cwt. The condensery and cheese factory paid $1.85 for 3.8% milk. Milk retailed for 9c a quart.—H. Dempsey.

Sioux Falls, S. D.: Ten more dairy cows were introduced into the association. One new milk house was built. There is a crying need for dairymen in this section. Last month market milk sold for $1.75—2.50 per cwt. and retailed for 12c per quart. The creamery paid 33c per lb. for fat.—C. E. Heeren.

Wellsville—College Ward, Utah: Many association members are interested in grain feeding and are making preparations to feed grain this winter. The majority feed hay. One member put a cement floor in his cow barn. Last month the condensery paid 44c per lb. for fat.—R. Hansen.

Mesa Co., Colo.: Production for October showed an increase of 4 lbs. per cow over last month. Cost of production decreased 6c per lb. fat due to fall pasture and more abundant feeding. Market milk sold for 20—25c per gal. and retailed for 10—12½c per quart last month. The creamery paid 36c a lb. for fat.—C. H. Boyd.

Lehigh Co., Pa.: One member purchased a carload of pure-bred Holsteins including a well bred bull to replace a scrub. Two members installed drinking cups. One modern calf barn was built. Corn is nearly all cut and some is being husked. All silos are filled. Potato crop is good but apples very scarce. The feed cost per 100 lbs. milk in the association for October is $1.76; for 1 lb. fat, 46c. Market milk sold for $2.80 per cwt. and retailed for 12—20c a quart last month.—W. W. Sassaman.

Des Moines Co., Ia.: At least 20 carloads of cull and scrub cattle from outside sources have been sold in this section for prices ranging from $50—$100. The quality of these animals sets the dairy industry back at least 20 years. Fortunately none were purchased by association members. In October market milk sold for $2.40 per cwt. and retailed for 10c per quart. The creamery paid 34c per lb. for fat.—C. M. Deem.

Branch Co., Mich.: The average production per cow for October was 538 lbs. milk, 21.59 lbs. fat. Dairymen in this locality are thoroughly disgusted with the flat rate on milk. A plant which would buy on the butterfat basis would be appreciated and patronized. The condensery paid $1.40 net flat rate per cwt. for milk.

Milk retailed at 12c per quart, butter 43c a lb.—L. Q. Kitchen.

Montcalm, Mich.: Members are beginning to feed silage and get cows in from the pasture. The high cow, a two-year-old, for October had only 25 days to her credit for 1,300 lbs. milk. Last month market milk sold for $2.40 per cwt. The condensery paid $1.75 per cwt. for milk, the creamery 37—41c per lb. for fat.—K. S. King.

Mocomb No. 2, Mich.: At a meeting held October 29th, Dr. Smith of the Detroit Creamery Farms gave a talk on care and preventive measures of abortion in cattle. George Girsbach of the Michigan Dairy Extension Department talked on bull association work. Last month market milk sold for $3.00 per cwt. basic f. o. b. Detroit and $1.59 for surplus f. o. b. Detroit.—C. Blumer.

No. Eaton, Mich.: In preparing the annual report, 41 cows were found to have made a profit of less than $40 above cost of feed. Nine cows produced over 400 lbs. fat and the high cow produced 537.5 lbs. fat and showed a return of $3.41 for each dollar expended for feed. The condensery paid $1.55 per cwt. for milk in September.—H. E. Frank.

Alpina—Leer, Mich.: There was a decrease in milk production last month due to the dry cows. Three silos were erected and one milk room constructed. Milk retailed for 15c per quart, butter 45c per lb.—C. Jennings.

Berrien Co., Mich.: All members use pure-bred bulls and the majority are anxious to own herds of all pure-bred females. Market milk sold for $2.12—2.25 per cwt. and retailed for 10—13c per quart in October.—P. L. Hemingway.

Oakwood, Wis.: The high cow for the first six months produced 10,446 lbs. milk, 349.8 lbs. fat; value of milk, $235.14; cost of feed, $78.56, leaving a profit above cost of feed of $156.58. The high herd for six months is owned by Alf. Mahr, his 13 cows averaging 1,269 lbs. milk, 39 lbs. fat.—V. M. Pinnewell.

Verona, Wis.: The association picnic was well attended. Last month market milk sold for $2.13 per cwt. The condensery paid $1.65 per cwt. and the cheese factory $1.37. The creamery paid 41c per lb. for fat. Milk retailed for 9c per quart, butter 41c per lb.—G. W. Weihing.

Farmington, Wis.: Tuberculin testing is under way in this association. The first five herds tested were found clean and five reactors were taken from the other two. In the course of a few weeks the entire association will have been tested, putting the majority under the Federal Accredited Herd system. The condensery, cheese factory, and creamery paid 50c per lb. for fat last month. Milk retailed for 12c per quart.—J. G. Strathearn.

Sheldon, Wis.: A meeting will be held at which there will be shown lantern slides, also a lecture will be given on feeds and feeding by the tester, followed by a basket social. Members are starting to feed silage and hay. The cheese factory paid 42c per lb. for fat, the creamery 37c in October.—G. E. Ronne.

Independence, Wis.: At the association sale held recently 40 head sold for an average of $53.00 per head. Three head sold for $100 each. A Guernsey calf topped the sale on bulls at $115.—P. Nelson.

Central Monroe Co., Wis.: Five faulty separators were found last month. The last scrub bull has been sold and a new registered one with three generations of high records replaces him. One member is building a new cement stave silo. Last month the creamery paid 42-44c per lb. for fat. Milk retailed for 8c per quart, butter for 41c per lb.—V. Sorenson.

Westby—Jersey, Wis.: During October 403 cows were tested; 24 of these produced over 40 lbs. fat. Several members are feeding grain and silage. One herd was tested for tuberculosis and one reactor found. This is the first reactor out of four herds tested since the association started in June. The creamery paid 41c per lb. for fat in October. Milk retailed for 10c per quart.—H. Oehmcke.

Tennyson—Dickeyville, Wis.: Last month 10 cows produced over 40 lbs. fat. Cel Winkler had the highest herd average of 649 lbs. milk, 35.4 lbs. fat. Two farmers built additions to their barns. In October the cheese factory paid 41c per lb. for fat, the creamery 37—38c.—J. Aufdermauer.

Lancaster, Wis.: Several herds are being tested for tuberculosis. One member purchased a pure-bred sire whose dam has a record of 606 lbs. fat. Another member built a new cement stave silo. Of the 463 cows tested, 68 were dry and 21 made over 40 lbs. fat. One member sold two grade Guernsey heifers for $125 each to an Illinois buyer. Last month the cheese factory paid 45c per lb. for fat, the creamery 40c.—A. J. Claridge.

Hammond—Baldwin, Wis.: Seven herds were tested for tuberculosis and no reactors found. One member unloaded a carload of lime. All members feed grain. Last month the creamery paid 45c per lb. for fat. Milk retailed for 8c per quart, butter 39c per lb.—O. Berkseth.

Spring Valley, Wis.: Sixteen members weigh milk daily and more will start soon. Two associations are expected to be formed out of this one for the coming year, making seven associations for Pierce County.—J. J. Taylor.

Denmark, Wis.: A meeting of the cow testing association members was held October 15th. J. M. Kavanaugh gave a splendid talk on cow testing association work and a film, Jonathan Bar's Conversion, on cow testing work

(Continued on page 596)

Are Wisconsin Factories Moving Away?

THAT IS A LIVE QUESTION. It deserves a correct answer. First of all, people should know what "moving away" means. It includes:

1. Changing Wisconsin corporations into outside corporations by re-incorporating in other states.
2. Selling Wisconsin corporations to outside companies and continuing the factories here as branches.
3. Moving main offices to other states.
4. Setting up separate outside corporations to operate Wisconsin factories.
5. Change of residence to other states on the part of officers, office employes and skilled workers.
6. Actually moving the factory out of Wisconsin.

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4. Lessening employment for Wisconsin labor.
5. Reducing the home market for Wisconsin farmers.

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Remember this: "moving away" does not alone mean tearing down or closing factory buildings. But whatever form it takes, it hurts Wisconsin and it hurts *you*. Read this ad again. Write us for information. We want people to get the facts. When once they have them, Wisconsin will go forward by leaps and bounds.

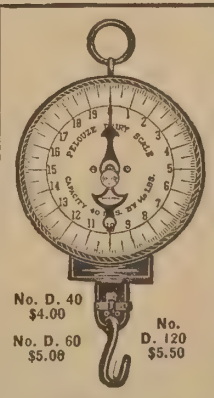
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VETERINARY

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Telegony

Some old superstitions and erroneous beliefs are hard to "scotch" or eradicate in the minds of the people and many of these exist relative to the breeding of farm animals. We were reminded of that recently when we read with astonishment some incorrect advice given by an editor to a correspondent who asked for it before going on the witness stand to give expert testimony relative to the after effects upon a female animal of a previous conception to the service of an alien sire. It has long been held by many breeders that such a service taints or infects the womb and that the taint will appear in subsequent offspring by a sire of the female's own breed. This mistaken belief became the stronger when Darwin advanced what he believed to be conclusive corroborative evidence by quoting the unquestioned fact that a mare that had been bred to a quagga subsequently had a foal by a stallion of her own breed which showed stripes characteristic of her previous alien mate. There was no doubt as to the "off" markings. They might, however, be explained on the more rational basis that foals not infrequently show such markings, although of pure breeding. This is most liable to prove true of the foal of a mare tracing in blood to the Arab breed. "One swallow does not make a summer", neither does a striped foal, such as the one mentioned, prove the truth of alleged telegony.

Professor Cossar Ewart of Scotland, in the famous Penycuik experiments, crossed Shetland and other pony mares with zebra sires, in every possible combination, and exhaustively continued and repeated or checked the results and in not a single instance did any "taint" or "infection" result. The pony foals, by pony sires of the same breed as the mares, invariably showed only their true breed characteristics and color or markings, despite previous conceptions to the services of zebra sires. When off-markings appear in any animal they are not, therefore, correctly attributable to a previous mating with an alien sire, but are evidences of atavism, or recurrence of the characteristics of a remote ancestor. Such characters lie dormant or recessive in all animals of our so-called pure breeds and any one of them may "crop up" when a male and a female possessed of the same dormant character happen to be mated. That phase of the subject will be considered in another article.

On the witness stand an expert would have to state that telegony, or the influence on subsequent progeny of a previous alien impregnation, has no foundation; in fact, as has been proved by exhaustive and authentic experiments and that all instances of off-markings, in offspring of pure breeding, when an alien cross has previously occurred, are evidences of atavism or reversion to the lost characteristics of a remote ancestor.

When a scrub bull breaks into a pasture and serves a pure-bred cow and she consequently produces a scrub calf, that is an accidental injury for which the owner of the bull may, perhaps, be held responsible in law; but he cannot legally be made to pay damages for a supositous injury to the cow on account of the fictitious taint or infection of the womb to which we have referred as "telegony". The editor should have so informed his correspondent and, in giving instruction to the contrary, was plainly a "blind leader of the blind".

Barrenness

Do you know of any treatment that has proved reasonably successful in the treatment of cows that fail to get in calf? We have quite a valuable cow that has had four calves but have been unable to get her in calf since her last calving, nearly a year ago.
East Moline, Ill. A. H. B.

If the cow does not come in heat it will be necessary to have a veterinarian manipulate the ovaries, by way of the rectum, to rupture cysts or dislodge persistent "yellow bodies" (*corpus luteii*). If the cow comes in heat regularly but does not conceive when bred it is probable that there is an infected condition of the neck of the womb (*cervicitis*) or of the womb (*endometritis* or *pyometritis*). These diseased conditions necessitate local treatment with antiseptics and the employment of special instruments so that an expert has to do the work. Until one can be employed it would be well to keep the cow isolated and to syringe out her vagina two or three times a week with blood warm (100° F.) boiled water containing two tablespoonfuls of salt per gallon. It may be added that infection with the contagious abortion disease is a common cause of barrenness.

Sore Teats

Every fall I buy several carloads of milk cows in the north and ship them to our home place here. Almost invariably we have a large percentage of these cows develop sore teats; often, I believe, it gets the form of cowpox. Do you know of anything I can use on the teats before loading and on the trips, that will prevent this trouble?
Orlando, Fla. B. B. D.

We should advise you to cleanse the teats, each time before milking, with warm water containing one ounce of hypochlorite of soda or hyposulphite of soda per gallon. At time of shipping infection of the teats may be prevented by applying carbolized vaseline or oil 2 or 3 times daily. A wide bandage or string around the udder and body would also give the necessary protection but scarcely would be feasible for so many cows. Have the cows milked with clean, dry hands and keep floors clean to prevent fouling of the teats. Instantly isolate and milk last every cow that shows sores of cowpox on her teats. The stables should be cleaned, disinfected, and whitewashed, including the floors and gutters.

Louse Powders

Have tried every druggist in Chattanooga and can't find flowers of sulphur, sabadilla seed, and Persian insect powder. Druggists don't know what it is here. Please tell me where I can find them.
Alton Park, Tenn. M. Q. L.

Flowers of sulphur is the washed powdered or flower sulphur and is kept in stock by every druggist. Sabadilla is *veratrum sabadilla*, or *asagraea officinalis*, the Mexican variety. Your druggist can obtain it by writing to any wholesale drug house. Pyrethrum, Dalmatian, or Persian insect powders can also be ordered from such a firm and are kept in stock by most druggists.

FOR SALE — BY MAIL

HAMPSHIRE BOARS, PIGS, GILTS



Write for FREE Price List.

WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

JERSEYS

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

"Just Jerseys"

Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.

The Oaklands, R. 5, Ann Arbor, Mich.

CEDAR CREST FARMS

FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.

J. K. DERING, Owner,
Lake Villa, Illinois

R. of M. JERSEYS

We are offering several fine male calves, sired by the Silver Medal bull, Sophie's Emblem, and Sophie's St. Mawes Victor. Some are ready for service. If you are looking for typy producers, write for particulars.

K. T. WIEGAND Cleveland, Wis.

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Valley Farm

is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

The Son of a Silver Medal Bull For Sale

SNOWFLAKE'S TORMENTOR 234788, born Feb. 24, 1924

A fine fellow, tracing to Gold Medal Bull, Sophie 19th's Tormentor, on both sides. Photos, pedigrees and description on request.

Herd Federal Accredited Sherman Jersey Farm, Dept B., Charles City, Iowa

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.



Bargains in Blue Ribbon White Collies

Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home—joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.

THE WORLD'S BEST

SHOMONT KENNELS
Box 117 Monticello, Iowa

BROWN SWISS

LEES' HILL

Accredited Brown Swiss Herd

"FORMERLY KINNELON HERD"

Offers a splendidly bred bull calf by a grand Champion National Dairy show winner and out of a first prize National Dairy show cow with a large A. R. record. Let us send you full particulars.

LEES' HILL FARM, Morristown, N. J.

WALHALLA FARM

BROWN SWISS HERD

BRIER HILL, NEW YORK.

Founded 1900. Federal Accredited. Official average of the herd 13,925 lbs. of milk, 551 lbs. of fat. Breeding stock for sale. Address all correspondence to

J. FRANK ZOLLER, Schenectady, N. Y.
Care General Electric Co.

Brown Swiss Herd For Sale

TWELVE PURE-BREDS, headed by Carl's Last, prize winning aged bull at Wisconsin State Fair and nine other fairs this fall. Also seven grade females. Entire herd will be sold at once. Write or come.

C. E. SMITH, 500 Broad St., Beloit, Wis.

GUERNSEYS

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.

J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

Hillbrook Farm Guernseys

Herd Sire—LANGWATER HORATIUS, son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested. At 1924 Ohio State Fair we had Jr. champion female and Sr. and grand champion female. At the next show we won 8 out of 9 firsts, 3 championships and 1 grand championship.

CHAGRIN FALLS, OHIO

For prices and information, write

E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

Jo Daviess Co. Guernsey Ass'n FIRST ANNUAL SALE

THURS., DEC. 4, ELIZABETH, ILL.

GRADE COWS and HEIFERS
PUREBRED BULLS

DONALD L. BRYSON, Sec'y, ELIZABETH, ILLINOIS

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

GUERNSEY DISPERSAL

10 Pure-breds, 28 Grades

Nov. 25, Waukesha, Wis.

We are selling our entire herd of 10 registered, 28 high grade Guernseys Nov. 25 at the farm one mile southwest of Waukesha. Every animal tuberculin tested.

MITWEDE BROS., Waukesha, Wis.

A Serviceable Bull

Grandson of Cherub's Prince

PROUD PETER OF CHIPPEWA was born Oct. 10, '23. He is well grown and a good individual. His sire, Proud Prince of the Prairie, second as a senior yearling at the 1922 National, is a son of that great sire, Cherub's Prince. His dam is a good producing, growthy, Glenwood cow. This youngster, bred as he is and with his individuality, should sire both type and production for you.

He is priced to sell. Write

L. P. MARTINY Chippewa Falls, Wis.

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.

A Federal Accredited Herd

—Registered— Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

FOX RIVER VALLEY GUERNSEYS

Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.

Emory C. Meltz, Sec'y., R. 2, Appleton, Wis.

GUERNSEY SPRINGERS

We have several carloads of high grade young cows for sale. Also a large number of purebred females and serviceable age bulls.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Secretary Fort Atkinson, Wis.

100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address

O. G. CLARK & CO., WEST SALEM, WIS.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.

RICHARD F. KLEMM, Baraboo, Wisconsin.

Island Farm Guernseys

Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.

ISLAND FARM, Box A, Floodwood, Minn.

Thorn Hill Farm Guernseys



Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

The Old Reliable

La Crosse County Guernsey Breeders' Ass'n will sell

175 Registered and High Grade Guernseys

West Salem, La Crosse Co., Wis., Wed., Nov. 26th

THE DAY BEFORE THANKSGIVING

75 Registered Guernsey cows, heifers and bulls. The choice of La Crosse and adjoining counties. A. R. cows with records of 500 and 600 pounds of fat as well as their sons and daughters.

100 High Grade Springing Guernsey cows and heifers. Young, big and good. All from Federal Accredited Herds or just tested. Send for catalog sale list and full particulars. A postal card will do it.

H. W. GRISWOLD, Sale Manager WEST SALEM, WISCONSIN

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

HELENDALE GUERNSEYS

FOR SALE: Several good typy registered females at very moderate prices, also some young bulls.

WM. A. ERBACH, Athens, Wisconsin

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa



LANGWATER QUEENLY A. R.

Do You Want the Best When You Buy a Herd Sire?

We are sure you do and that you will be interested in the son of Langwater Queenly we are now offering. "Queenly" produced 675 lbs. fat in Class E and 757 lbs. fat in Class A from 16,552 lbs. milk. He is sired by Langwater Star Gazer whose first daughter now on test is going at better than a 600-lb. rate in F. This calf will bring you both type and production and is priced very reasonably at $1000. The herd is accredited.

FLORHAM FARM, R. H. Allen, Mgr., Madison, N. J.

Ladysmith's Cherub and Gerar Pearl

We are line breeding to these two great individuals by using our herd sire CHERUB'S DART (out of PEARL'S DOT) on the seven head purchased at Mr. Stout's Sale.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

2 SONS OF LADYSMITH CHERUB

The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

This Blood Sells Fast!

Our bull calves are either sons of Anton's King Confidence or out of his daughters. They sell so rapidly that only in rare instances are we able to keep them until they are old enough for service. If you want a bull possessing this blood to head your herd, buy a calf six months' old, raise it yourself and save money. A. K. C. has gained a reputation for siring mighty good udders along with the other desirable characteristics. A bull of our breeding will make money for you and improve your herd.

Hoard's Dairyman Farm
FORT ATKINSON WISCONSIN



ANTON KING CONFIDENCE 43517

Cow Testing Associations

(Continued from page 598)

was shown. The condensery paid $1.70 per cwt. for milk in October. The cheese factory paid 47c per lb. for fat.—M. H. Nelson.

Alma—Cochrane, Wis.: Thirteen members supplemented pasture with grain. Three feed silage. Twelve members weigh milk daily. One milk house was built and another is under construction.—E. R. Bailey.

Elroy, Wis.: Fourteen cows produced over 40 lbs. fat, three over 50 lbs. and three herds averaged over 30 lbs. fat last month. Milk retailed for 10c per quart.—A. G. Steffen.

Minnesota Has Ninety-two

HOARD'S DAIRYMAN:—In the October third issue of Hoard's Dairyman you gave a brief summary of our 1923 cow testing association activities in Minnesota. In this you stated that we had 40 associations. This is a bit misleading as on the 31st of December 1923, we had 72. Our summary reported that 40 associations could have rendered actual reports and of this number 29 submitted them. Thirty-two new associations were organized during 1923 and these added to the 40 which were already in operation brings the total to 72. At the present time there are 92 active testing associations in Minnesota which indicates that a steady growth has been taking place since the 1923 report was summarized.—E. A. HANSON.

Minnesota College of Agriculture.

Pennsylvania Associations

The Edinboro Association of Pennsylvania completed its year with 518 cows on test, their average production being 8449 pounds milk containing 310 pounds fat. There were 31 cows that produced over 400 pounds fat for the year, the high cow being a grade Holstein owned by G. S. Henry & Son that produced 16,604 pounds milk containing 600 pounds fat. There were 14 herds that averaged over 300 pounds fat with the Jersey herd of R. F. Divine taking first place with 449 pounds fat.

The Butler Association finished the year with 264 cows having an average production of 7047 pounds milk containing 296 pounds fat. The high herd, owned by Alex Martin, had a production of 10,092 pounds milk containing 405 pounds fat.—L. O. SIDELMAN.

LEARN AUCTIONEERING
at World's Greatest School. Term opens Dec. 1st. Students have advantage of International Live Stock show for Stock Judging. Write today for large, free catalog.
JONES NAT'L. SCHOOL OF AUCTIONEERING, 38 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

HOLSTEINS

OHIO HOLSTEINS FOR SALE
Registered **COWS, HEIFERS and BULLS.** Very choice Calf Club **CALVES.** State exactly what you want. One or a carload.
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Ollie-Ormsby
BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.
WALCOWIS FARMS Lake Geneva, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis
is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON, Oconomowoc, Wisconsin
Herd under federal supervision.

150 HOLSTEINS AT AUCTION

TUESDAY
DEC. 2d
Eastern Iowa Holstein Breeders'
Waterloo, Iowa
Cattle Congress Grounds
80 Pure-breds

COMPLETE DISPERSAL—Peck Bros. herd at La Porte City.

SEMI-DISPERSAL — H. E. Brintnall, Winthrop.

DISSOLUTION—Oak Grove Holstein Co., Cedar Falls.

OTHER CONSIGNMENTS from herds of O. L. Hamer, John Cunningham, Thos. Hansen, Peder Pederson & Sons of Blackhawk County, and D. J. Sessler, Dumont.

WEDNESDAY
DEC. 3d
Western Iowa Holstein Breeders'
Des Moines, Iowa
State Fair Grounds
70 Pure-breds

REDUCTION—25 head from Chas. Otis herd at Boone.

COMPLETE DISPERSAL—J. H. Bennett herd at Albia.

OTHER CONSIGNORS—include, A. D. Severe Dows, Z. C. Thornburg, Des Moines, Fred Dan, Woodward, Hargrove and Arnold, Norwalk, Fairburn & Wood, Fonda, Henderson, Erickson, Randall, and others.

These are a good representative lot of cattle and are being sold because of lack of room or change of business conditions.

Buyers will have an opportunity to buy fresh cows, cows in calf to good bulls, good yearlings, and some well bred bulls.

Cattle are practically all from Accredited Herds.

Direct train connections between Waterloo and Des Moines. Parties may buy part carload at Waterloo and complete load at Des Moines Sale.

Send for illustrated folder.
60-90 day retest

Largest group offering to be made in Mid-West this Winter

Both Sales under management of
IOWA HOLSTEIN BREEDERS' ASSOCIATION
HARRY GLEIM, Field Sec., Webster City, Iowa

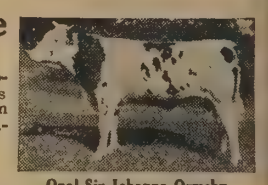
1768 Holsteins For Sale
of all ages and all periods of lactation. Healthy cattle that have type and are good producers. No matter what you want, you can get them here in Ohio. There are over 40,000 registered Holsteins in this state and at least 100 carloads for sale from which you can make your selection.
WE WILL HELP YOU BUY
We are in a splendid position to help the buyer. Come directly to our Cleveland office and one of our representatives will drive you around in those sections where the kind of cattle you want are for sale. Write us for any further information you want, and be sure to wire or write us when you are coming.
There is no charge for any service we can render you
OHIO HOLSTEIN-FRIESIAN ASSOCIATION
E. M. CLARK, Field Sec., 10509 Euclid Ave., CLEVELAND, OHIO

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*
Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".
Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.
Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.
A. J. LASHBROOK - - - Northfield, Minnesota


Sir Walker Segis Homestead

A Yearly Record, Serviceable, Ormsby Bull
Born July 30, 1923. A good individual, mostly white in color. A grandson of Sir Pietertje Ormsby Mercedes. His two nearest dams average 995 lbs. butter, 23,000 lbs. milk in 365 days. The price is $175 F. O. B. Northfield.
CARLETON COLLEGE FARMS, Northfield, Minnesota
FEDERAL ACCREDITED HERD

A SHOW BULL --- Soon Ready for Service
Born February 17, 1924
His Sire: Onal Sir Johanna Ormsby, 1st prize N. W. Dairy Exposition, 1923, with dam's record of 688 lbs. in 305 days as Jr. 2. His Dam: A typical 2-year-old daughter of Sir P. O. M. 41 with dam having 700 lbs. in 305 days. Breeding: The Ormsby-Colantha combination.
Ask for picture, price and particulars.
ONAL HOLSTEIN STOCK FARM, Alexandria, Minn.


Onal Sir Johanna Ormsby

Grahamholm Herd
We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.
GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

Ormsby Show Bull Offered
Highest mail bid takes Ormsby Show bull. Was a year old on Oct. 16th and weighs a thousand pounds. Grand Champion at district fair. Sired by a 2800-lb. show son of the Waterloo Grand Champion daughter of Sir P. O. M. 41st. Dam, a 15,000-lb. two-year-old granddaughter of Sir P. O. M. Second dam a 19,000-lb. daughter of King Korndyke Colantha Ormsby. Guaranteed in every way. Let's have your bid on this wonderful individual that is mostly white in color.
UPSALA, R. L. Olson, Minnesota

Richly Bred Holstein Bull Calves
out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.
Herd tuberculin tested. Write for information or visit herd.
P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

GRANDSONS of SIR P. O. M. 37th
from dams with long time records up to 1024 lbs. butter in year. Federal Accredited Herd. Prices from $75 to $200.
B. A. NORRIS Anoka, Minn.

Walworth County Holstein Breeders' Sale
ELKHORN, WIS.
WALWORTH CO.
Tues., Nov. 25th
10.30 A. M.
Nearly all from Accredited Herds. Usual retest privilege.

70 -- HEAD -- 70
Pure Bred Holsteins
25 serviceable bulls—quite a number from good record dams—ready to use. 6 bred 2-yr.-olds from Heck Bros.' herd. 4 cows with records up to 28 lbs. from Geo. Pope herd, 25 females just fresh or springing. Some nice yearlings.
For Catalog: **BEN BACHHUBER, Secretary ELKHORN, WISCONSIN**

A YEARLY RECORD HERD
The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.

HERD SIRE FOR SALE
Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

Purebred and Grade Holsteins
We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.
DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

BUY YOUR HOLSTEINS
where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. **JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.**

SAUK COUNTY HOLSTEIN ASS'N.
Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
N. T. GILL, Sec'y., Reedsburg, Wis.

Before You Buy A Bull !

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Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

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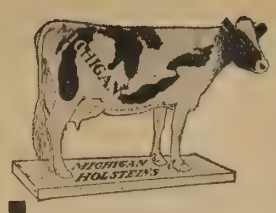
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JEFFERSON CO. HOLSTEIN ASS'N, T. W. Anthes, Sec., Jefferson, Wis.

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25 HEAD pure-bred heifers, 2 and 3 years old, bred to a 29-lb. bull. Due in November. Priced right for immediate sale. RANDOLPH HOLSTEIN ASSOCIATION, S. W. Pierce, Sec'y. Randolph, Wis.

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Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
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OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.
L. C. KETZLER, R. 8 Flint, Mich.

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2 SERVICEABLE BULLS

One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $150 takes either bull. Herd under Federal supervision.
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MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

Why Take Chances When We Sell Only Proven Producers?

WE OFFER: Copland S S Echo born Feb. 24, 1922. Btr 7d 1 yr. 7 mo. 20.99 milk 410.1. Btr 1st 7 mo. (herd record) 418.31 milk 10,325.8. Net profit $94.95.

Due Feb. 22, 1925 by Sir Dutchland Colantha Denver, dams record 36.25, 1315.15.

PRICE $250.00 F. O. B. Send for picture and pedigree. Herd under Federal supervision.
SERRADELLA FARM, Oscoda, Mich.

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3 High Record Bulls FOR SALE!

One out of a 29-lb., 1,108-lb. four-year-old daughter of King Hengerveld Model Fayne, a 30-lb. grandson of King Segis. One out of a 31-lb., 1,185-lb. daughter of Fairview Pontiac Beets Korndyke. Both of these are sired by a 38-lb. son of Judge Segis.

I am also offering a son of Sir Ormsby Pontiac Segis out of a 36-lb. daughter of King Segis Pontiac Superior.

Write today if you are interested in a good bull. I will be pleased to send pedigrees on request.

LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

Sons of Traverse Echo Sylvia Kaastra

Last week we told you about the show bull at the head of the Michigan Reformatory Herd. We have four of his sons that will be ready for service in the Spring. All are well grown and nicely marked 50—90% white.

No. 370—Born: March 26, 1924. From a 24-lb. Jr. 3-year-old.
No. 372—Born: March 31, 1924. From a 26-lb. cow with a 365-day record of 863.39 lbs. butter and 20,785.7 lbs. milk.
No. 375—Born: April 12, 1924. From a 24.6-lb. cow now on semi-official yearly test.
No. 378—Born: May 1, 1924. From a 25.9-lb. cow with a 365-day record of 834.4 lbs. butter and 19,260.4 lbs. milk.

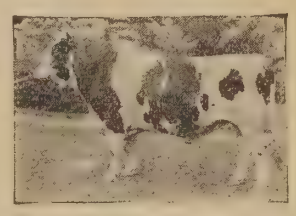
Send for our new list of bulls for sale from Traverse City, Pontiac, Newberry and other Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



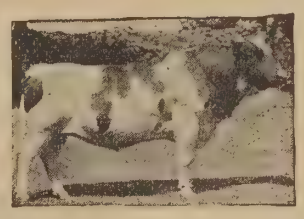
We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



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Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

Oatman Farm Holstein Herd

Improve Quality and Type and increase production by buying a herd sire from Oatman Farm. Entire herd on yearly test. Never a T. B. reactor nor abortion. World's record and Grand Champion breeding. Average production per cow per year 17,000 lbs. milk—726 lbs. butter. Write for bull sale list.

O. A. JENS, Mgr. DUNDEE, ILL.

For Sale or Exchange

LORD FAYNE VALDESSA NO. 187263, proven sire. Dam's record seven days 30.61 lbs. Milk 630 lbs. Thirty-day record 125.49 lbs., milk 2,589 lbs. Write
SLIVKA BROS., Plainview, Illinois.

36-lb. Breeding

back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.
ORCHARD CREST FARMS, R. D. 3, Scoharie, N. Y.

BULL CALF BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

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30 Extra Fancy Grade
HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.

High Testing Show Bulls

ALL AGES

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.
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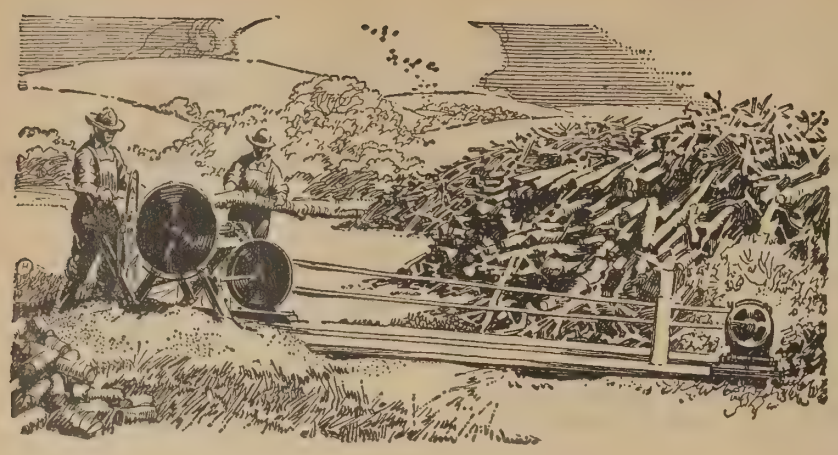
Ed. 20 July 25

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 20 Fort Atkinson, Wisconsin November 28, 1924



Just Common Sense

FARM electrification, like farming itself, is a matter of common sense.

Farmers do not want electricity unless they can use it profitably.

But how can they learn to use it profitably? By experiment.

That is exactly what is now being done.

A National Committee of economists and engineers has organized state groups of farmers to whom electric service is now rendered. Each state group, with the assistance of its agricultural college and farm-paper editors, applies electricity in old and new ways. It keeps accurate records of operating and producing costs for comparison with the costs of unelectrified years. Electricity is being adapted to farming, and farming to electricity.

From time to time the results of these experiments will be made known. Farmers will not have to wait years before they can throw switches and fill silos electrically.

Even those farmers who have long had electricity, because their local conditions made it profitable to apply it, will receive the benefit. For they will see how they can make even greater use of electric service.

Thus the common-sense method of gathering the facts experimentally is helping along the work of farm electrification.

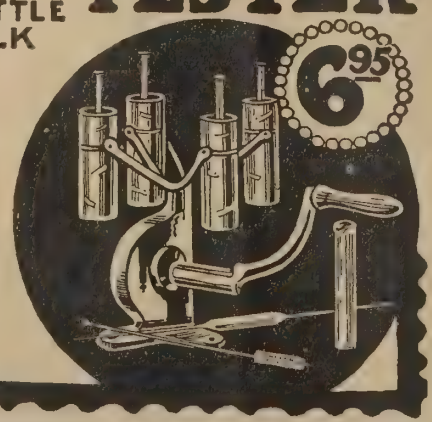
The Committee in charge of the work is composed of economists and engineers representing the American Farm Bureau Federation, the Departments of Agriculture, the Interior and Commerce, the Power Farming Association of America, the American Society of Agricultural Engineers and the National Electric Light Association.

A booklet has been published by the Committee. It will be sent on request free of charge. Read it and pass it on to your neighbor. Write for it either to Dr. E. A. White, American Farm Bureau Federation, 58 E. Washington St., Chicago, Ill., or to the National Electric Light Association, at 29 West 39th Street, New York City.

NATIONAL ELECTRIC LIGHT ASSOCIATION

CP BABCOCK TESTER

FOUR BOTTLE MILK



How Much Butter Fat? That is the Question

See that every cow in your herd produces her share. Eliminate the non-producer with the *CP* Babcock Tester. IT PAYS.

Everything complete for testing sent with each machine, as follows: A high grade accurate four-bottle centrifuge testing machine; one acid measure; bottle brush; instruction sheet.

Write for big FREE Milk Dealer's and Dairy Farmer's Catalogue.

THE CREAMERY PACKAGE MFG. COMPANY
68 W. Kinzie Street, Chicago

My Engine Will Do the Work of 6

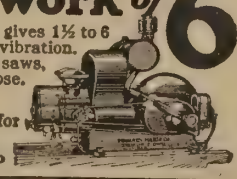


Write now for facts about this wonder engine. Same engine gives 1½ to 6 H. P. Gasoline or kerosene. Portable, light, and free from vibration. Requires no anchorage. Easy starting—no cranking. Pumps, saws, grinds and does all chores. Plenty of power for every purpose.

Low Factory Price—Free Trial Offer

Tremendous value. Thousands of satisfied users. Write now for details and free trial offer on this amazing engine.

Edwards Motor Co., 937 Main St., Springfield, Ohio



Wayside Musings

The Sower, The Seed, And The Soil

JOSEPH S. MORRIS, WISCONSIN

THE little girl was very near the mark, when she said that a parable is "an earthly story with a heavenly meaning".—W. M. Taylor.

How true! And how very, very many there are of these earthly stories with heavenly meanings. We are helped to the understanding of truths by descriptive and pictorial language. It would seem as if everyone who in any way attempts to teach would try always to use the simplest possible language to make it descriptive, to realize that we are all very busy people and that many times we miss much of truth because we haven't time to dig it out of language that conceals it.

The greatest art in the world is to get the great, enduring, character-building truths into the lives of people, for it is to good character that we must look for all progress of the future.

Jesus of Nazareth, the Galilean Peasant, continually resorted to "the earthly story with a heavenly meaning" and that is why the crowds lingered to listen while He talked.

There is nothing more difficult to listen to than advice which is given in a "preachy" manner. It may be the absolute of truth; we may know that it is the very thing we should heed, and yet, somehow, we are so constituted that when we are being "preached at", something within us revolts against it and we are not won over to the truth.

Jesus in His teaching usually left it to the hearer to reach his own conclusions. He presented the truth in story, in illustration, with a fine appeal, and always left the impression that men must themselves make the choice.

As He told the Parable of the Sower, men would be asking themselves "What kind of soil am I?" "How will the seed of good get along as it falls into my life?"

As the sower scattered the seed (it was by hand in Jesus' day), some of it fell by the wayside, upon the trodden-down, hardened ground. The birds of the air with keen eyes saw it and carried it away. Our lives may be the wayside soil, hardened by the struggle of life, tramped down by self-seeking and selfish living. Truths, however beautiful and saving they may be, may find it impossible to get a lodgment in our lives.

Some of the seed fell upon rocky places, places where there was shallow soil between the rocks. They found a lodgment, took root, grew up, but under the blazing heat of the day, when the moisture was exhausted, they withered away because they were not rooted deeply. In fine moments of life there come to us visions of high and noble purpose, ambitions for powerful, helpful lives. But everything that is strong and enduring and worth while has to stand a lot of opposition and testing. If the great, good emotions that come to us root deeply they will live and guide us.

And then, according to Jesus' story, some of the seed fell among thorns and the thorns grew and choked it. Those who read these words know how hard and how stubborn must be the battle against weeds. Character survives by a continual battle against "weeds" that get rooted in our souls. If there are untruths, bad thinking, hate, envy, jealousy, stubbornness growing in our characters, the truths which make for fine, broad manhood and womanhood will be choked out.

Then there is the good soil, the prepared soil. The seed took root, grew, multiplied, some thirty, some sixty, some a hundredfold. The good soil of the soul is made of kindness, justice, truth, self-control, reverence, brotherliness, and when the words of wisdom, of progress, of sanity, of clean living comes, it falls into the soul and takes root and grows. We are ready to grow into friendly and fruitful lives.

There are, happily, untold thousands of lives that are a blessing to themselves and to others. They have deliberately and painstakingly prepared to receive only the best and the best has grown in their lives and borne fruit.

What kind of soil am I? Am I open, receptive, eagerly waiting the ever-increasing light of truth and knowledge? Am I the prepared soil that can receive and make the most of all that is so wonderful in the age in which I live?

If all the "good soil men and women" of the world were written up in the newspapers and magazines there wouldn't be room for much else.

Farm Tenancy Studied in California

The California College of Agriculture has recently conducted some investigation concerning problems in farm tenancy and methods of leasing. The results of the investigation are published in Circular No. 272.

Those in charge of the work set up as the objective the following: 1, a study of the tenant situation as it affects the social and economic welfare of California; 2, a description of leasing methods in use in various agricultural sections of the state; 3, a suggestion concerning ways of determining proper division of income between landlord and tenant; 4, items to be considered in drawing up leases.

The conclusions drawn while of direct application to California conditions are not without pointed significance to other parts of the country. They are as follows:

"A state-wide policy looking to permanency in California agriculture requires that the place of the tenant be more accurately measured in the future than it has been in the immediate past, that conditions be improved for deserving tenants so that men may be drawn to the land who shall become social as well as economic assets, and, finally, that the land and all that it implies shall be given that consideration which will protect it from ruinous practices and short-sighted exploitation. Upon the welfare of its agriculture does much of California's prosperity depend."

Ayrshire Sets New Production Mark

South Farm Helen R., this year's National grand champion, completed her Roll of Honor requirements in the ownership of Adam Seitz & Sons of Wisconsin. In 300 days she gave 13,374 lbs. of milk, 498.05 lbs. fat; carrying a living calf 193 days of this period. This entitles her to the championship of the mature class of the Roll of Honor in this state.—Ayrshire Breeders' Association.

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Entered at Fort Atkinson, Wis., as second class matter.

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Volume LXVIII FORT ATKINSON, WIS., NOVEMBER 28, 1924 Number 20

LESSONS FROM MY TRIP ABOUT DENMARK

J. MOLDENHAUER, CONNECTICUT

NOW I have been in Denmark over five months and surely have seen and heard much and many people of many kinds and in all stations in life, from plain town people and peasants to barons, counts, king, and queen! And truly I have enjoyed the talk and company of one kind just as much as of the other, and while I was glad again to see the hills, fields, seashore, villages, and cities and the immense progress made in all directions, still what has interested me most of all has been to get really acquainted with these Danes, my old countrymen, and to find them as a whole the most cheerful, friendly, and hospitable people I ever met anywhere—and that means a good deal. Of course, the Danes have their curious peculiarities and national faults, as all people have, but—that's another story! The fact is that every foreigner who behaves himself and doesn't brag too much of the superiority of his own land (we all know a little about that tendency), will be welcomed and shown every courtesy, no matter whether he is French or German, yellow or black! This will do for an introduction to what I really want to tell about, and I follow the good old rule, *"Strike while the iron is hot,"* and don't postpone.

Therefore I shall begin by telling about my last event, what I heard at a crowded meeting of dairymen from the country about Aarhus, that beautiful, prosperous, and fast growing city of 75,000 people, the capital of Jutland. The special cause of this gathering of so many busy farmers at 3 p. m. was the address by Professor Orla Jensen, the great bacteriological expert of Denmark, whose effort and investigations for years have been especially directed towards the dairy, the milk and its uses in all forms. He is a fair and conscientious investigator, who does not say or write things in order to please anybody or whoever would try to "grind his own ax", which we unfortunately find too many like to do—also in America! He also possesses that Danish characteristic of *"thoroughness"* and wants to be *sure* of a thing before he advocates it, and does not go off "half-cocked", which probably is one of *our* most dangerous tendencies.

You know how we all love to meet and hear people who agree with us! Thus you can well understand how pleased I felt when already at my first meeting with Professor Orla Jensen in Copenhagen I at once found that we so completely agreed on all principal milk questions, and more so especially in our ideas as to what ought and must be done in order to improve the quality of the supply of milk and cream for all cities, in America as well as in all other countries, and thereby again to gain the great object: to increase the use of milk in every form by all people. But while pleased to find such an eminent scientist from a theoretical and humane point of view to have reached the same conclusions which I, an old Danish-American milkman, have reached after half a century of practical experience—still it almost tickled me also to find that this Danish professor, which title means more abroad than in the United States, had the highest praise for the progress made in the United States along the lines of city milk supply, and considers the American cities generally to be far in advance of Copenhagen and other cities in Denmark! This same fact has also struck me, and wherever I have been I have taken pains to find out what the consumers and housewives over here think, and have always found a dissatisfaction with the milk and cream. A strange fact, indeed, when we know that Denmark absolutely holds the first place as a dairy country as well as a producer of the finest and best known products made of milk anywhere in the world.

What, then, can be the reason of this Danish backwardness regarding that most important question, milk for consumption? Partly, I think, it is caused by that dangerous disposition in all men: To rest upon old laurels! When we human beings a long time have been told about our great virtues and accomplishments, we are apt to forget that progress is necessary everywhere; if not, stagnation shall take its place. But when Denmark years ago found that some radical steps had to be taken in order to put a halt to the spread of tuberculosis among the dairy herds as well as all stock generally, it was found that the most practical and effective method would be the thorough pasteurization of all skimmilk supplied from the creameries for the feeding of stock on the farms. This system was soon adopted and made compulsory by law—the laws, by the way, are always enforced in Denmark—and the results have proven most effective, and the spread of tuberculosis through infected skimmilk and buttermilk has been checked. But in order to enforce a law it was necessary to find a test by which it could be easily proven that all milk sent back from the creameries had been heated sufficiently to guarantee the destruction of all tubercular germs. It was then found that even a momentary heating of milk and cream to at least 85 Centigrade (185° F.) was necessary so to change the milk that a simple test would change the color of the milk only if it had been sufficiently heated. So this temperature was adopted by law, and has been practiced ever since in all Danish creameries, both for the skimmilk and for the cream used for buttermaking, so that the buttermilk became equally safe for all feeding purposes. Fortunately this high heating did not have any bad effect on the butter when the pasteurized cream afterwards was ripened by the addition of a uniform starter, but on the contrary has played an enormous part in producing a butter not only of excellent character but of such keeping quality and uniformity which is unequalled in any other country. What is good for the goose is not always good for the gander.

It may be that the stomachs of people and pigs are very much alike, but civilization has made us finicky in our taste, and so it happens that most people dislike the taste and smell of such high pasteurized milk and while the laws of Denmark prohibit calves and pigs from drinking cows' unpasteurized milk, the people everywhere are still allowed to drink and eat milk raw and the natural result is that yet today the people of Copenhagen generally drink raw milk, which, while very cleanly handled, still not only has a poor keeping quality (gets sour too soon) but cannot be guaranteed as being safe, not only as to presence of tubercular germs, but also as to infection from the many other most common diseases so dangerous both for children and adults.

I have gone rather more into these details because it will explain Professor Orla Jensen's point of view and fixed convictions better. It also is interesting to find that the Professor already by his researches and experiments in Copenhagen had reached the conclusion that when milk was heated even as low as to 60° Centigrade (140° F.) only, but was kept at that temperature for 30 minutes, would destroy all objectionable germs as fully as the higher temperature 85° Cent. for momentary exposure. But when Professor Jensen visited the International Dairy Congress in the United States, he was surprised to find how this system already had been so universally adopted for many years and with such great success. So he became more confirmed than ever that low pasteurization, as it is called in Europe, absolutely is the only practical method to secure a safe and satisfactory milk supply for cities—at least until something still better may be invented.

The professor also had become much interested in the so-called "Dairy Council" as has lately been organized in the eastern part of the United States and he has already succeeded in forming a similar organization in Denmark, with the important final object to increase the use of milk in all forms. It certainly must please us in the United States that a so far advanced dairy country as Denmark still may learn something from us. Only let us not forget that we can

(Continued on page 620)



UNION STAR CHEESE FACTORY

FOR several years the Marschall Dairy Laboratory of Wisconsin has offered prizes to Wisconsin cheese factories for neat and attractive surroundings. The above illustration is of the Union Star Cheese Factory, winner of the first prize in this contest. The prize is not offered for the most expensive or elaborate cheese factory, but for neat and attractive surroundings.

The Wisconsin cheese industry would render itself a splendid service if every cheese factory in the state would take more pride in outside appearances. This state is visited by many tourists and if every cheese factory they passed had plants and flowers and well kept grounds surrounding it, and the factory well painted and otherwise in neat condition, it would be one of the biggest advertisements we could give our cheese. A cheesemaker who looks after the outside appearances of his factory and takes pride in it is also a better cheesemaker. He requires better milk from his patrons and he exercises more care in the manufacture of his cheese.

Pacific International Live Stock Exposition

F. L. BALLARD, OREGON

THE 14th Annual Pacific International Live Stock Exposition held in Portland the week ending November 8th, reaffirmed the spirit of the Pacific Coast and its faith in better live stock.

When on July 23rd the entire plant housing the exposition was burned to the ground, it for a moment seemed that this distinctive live stock show was temporarily at an end. But only for a few minutes, however. Before the ashes were cool, press announcements went out bearing word that reconstruction would at once begin and a replica of the destroyed plant would be ready for use November 1. And it was. In fifty-eight working days a new building was finished and in it were all the conveniences of the first structure and many features of added convenience as well. An additional acre was enclosed making more room in the arena and in the barns, providing particularly for increased accommodations for the boys' and girls' club exhibits which have from the first been an annually increasing phase of the exposition. Around the enlarged arena the increased seating space was freed of obstructing pillars.



AIRPLANE VIEW OF THE PACIFIC INTERNATIONAL EXPOSITION PLANT REBUILT IN 58 WORKING DAYS FOLLOWING COMPLETE DESTRUCTION BY FIRE JULY 23, 1924

Fire was not the only untoward development encountered by the show this year. With California ravaged by foot and mouth disease, entries from the South were closed; with drouth prevailing over all the West and the fire occurring just as fitting for the show was to start, conditions were not favorable. In fact, many Northwest shows including the Washington State Fair were cancelled.



MANAGER O. M. PLUMMER HOLDING THE GRAND CHAMPION HOLSTEIN COW OF THE PACIFIC INTERNATIONAL LIVE STOCK EXPOSITION, MADAM ARTIS WAYNE DENVER, OWNED BY JEFFERSON COUNTY ASYLUM, WISCONSIN

The Pacific International covers a wide field. Not only is it a dairy show of first rank but as an exhibition of beef cattle, horses, sheep, and hogs it also holds a front place. Connected with the show is a Northwest Land Products Exposition, a large industrial exhibition, and the Western Winter Poultry and Pet Stock Show. The night horse show is an event of every evening and late in the week, after the judging is completed, matinees are scheduled.

The premium list this year totaled $90,000 in cash prizes. In addition there was an unusually long and valuable list of special trophies awarded by commercial and agricultural organizations.

The greatest improvement in live stock exhibits this year was noted in the draft horse classes. Not only were draft horses shown in greater numbers than for several years back but the high class of the entries was heretofore unattained. The sheep classes were also strong. Hogs showed great improvement in quality of exhibits and remained about as in previous years in numbers. Beef cattle were shown in approximately the usual number and the quality was about on former levels.

The dairy show, as from the first, reflected the advancement of the Pacific Coast in the dairy industry. In the territory immediately surrounding the show, dairying has made marked progress in recent years. Government reports indicate that the cows of Washington are the highest producers of those of any state. Oregon has a major share of the production records in the Jersey breed; in fact, holds more world's records than any other state. In Idaho the dairy cow is being recognized as the hub around which diversified farming is being developed. More bull associations have been organized in Idaho recently than in any other state. British Columbia is increasing its dairy industry; likewise California, where rapidly increased population is providing ready markets.

The dairy show this year in general equalled expectations. Many entries were from the herds of new breeders who are starting modestly with a small number of good individuals. The dairy products show was stronger than usual, featured by good numbers of entries of butter, cheese, and market milk.

The Land Products Show maintained its quality. The potato display, while decreased in total entries, made high advancement in quality. Certified seed displays and excellent bushel entries of market stock were the features. The state experiment stations made suitable displays and a large space was devoted to an exhibit by Oregon Agricultural College. Agricultural counties sent representative exhibits. There was no competition among these entries. Hood River County, Oregon, sent an outstanding exhibit of apples. Coos County, Oregon, presented a booth featuring cheese and myrtle wood products.

In the industrial department the United States Department of Agriculture, in tastefully arranged booths, depicted different lines of effort. The Bureau of Dairying brought out the value of better feeding, improved breeding practices, and sanitary methods of handling milk. The Forest Service, Biological Survey and Bureau of Public Roads brought to light appropriate facts regarding work in progress.

The Holstein-Friesian Association maintained official headquarters in a space 10x40 feet in the industrial department and distributed literature and furnished Holstein milk. Fred A. Koenig, head of the association's extension service, and W. E. Meyer, fieldman for the Northwest, were in charge. The Jersey breeders had feature displays in the dairy barn. Darling's Jolly Lassie, world's champion producer, owned by Ovid Pickard, occupied an especially well decorated box stall. The Guernsey Association presented a rest room for Guernsey enthusiasts. In charge of this feature was E. L. Westover of the field staff.

Boys' and Girls' Clubs

Exhibits of boys' and girls' club members have always been a popular feature of the exposition. Here is afforded a fitting climax to the year's work and winners in county competitions in the northwest states, particularly, meet for final competition. Most of the entries would stand creditably in open classes and here and there is found an individual which would win. Junior exhibitors this year showed sixty-five dairy animals, forty sheep, thirty-two beef animals, five colts, and 285 hogs. The colts were shown by a club from Adams County, Washington.

Thirty-three county teams entered the stock judging contests. All classes of live stock were placed. First place went to Marion County, Oregon. Members of the team are Homer Bray, Eldon Fox, and Lyle Rains. Other leading teams were Kittitas County, Washington; Linn County, Oregon; Union County, Oregon; and Adams County, Washington. Homer Bray of the winning team was high ranking individual attaining a score of 800. Dan Reaugh of Grant County, Washington, pressed closely with 795. Morris Johnson and Lester Blockland, both members of Oregon teams, were tied at 785 and Clarence Smith of Lewis County, Washington, made a score of 775. Professor Gordon H. True of the University of California had charge of the judging contest.

Twenty-five teams from Smith—Hughes vocation high schools entered a live stock judging contest arranged especially for students in Smith—Hughes courses. Newberg, Oregon, sent the high scoring team. Twin Falls, Idaho, presented the second place winners. Other teams in order were from Ontario, Oregon; Pullman, Washington; and Imbler, Oregon. Ted Sievers of the Filer, Idaho, team was highest scoring student and won a gold medal. Albert Murphy was second. Others toward the top were Roland Sheedeen, Virgil Starr, and Russell McKennon of Oregon. R. J. Werner of the California Department of Education had charge of the contest.

In the college judging contest—all breeds of live stock—University of California was first with a score of 4,376. The other teams placed as follows: Washington State College, Uni-



GOVERNORS W. M. PIERCE, OREGON, (LEFT) AND L. F. HART, WASHINGTON, DRINKING HOLSTEIN MILK AT THE HOLSTEIN BOOTH

versity of Idaho, Montana State College, Oregon Agricultural College, University of British Columbia.

Individual leaders were: Hector McDonald, Washington State College, 915; Walter C. Leth, University of Idaho, 910; Elizabeth Graves, University of California, 906; Milton Johnson, University of Idaho, 904.

Students' Dairy Judging

By virtue of winning first and second in judging Holsteins and a second place in Ayrshires, the University of Idaho team took first rank in the college students' judging contest, an annual event held under the direction of the Western Dairy Instructors' Association. Gold medals are offered by the association to the three students making the highest scores. H. W. Thulin of the winning team was high man with a total of 1,182 points out of a possible 1,500. Henry P. Dykstra of Washington State College was second with 1,141 and Robert E. Osborne of University of California, third with 1,132. Mr. Osborne was first in judging Ayrshires and Guernseys. Mr. Thulin was the most accurate judge of Holsteins and S. J. Curtis of Washington State College was the best judge of Jerseys.

Members of the winning team were: H. W. Thulin, David Fales, and Dan Warren. Professor F. W. Atkeson coached the team. The remaining four teams finished as follows: Washington State College, Oregon Agricultural College, University of California, University of British Columbia.

The Ayrshire Breeders' Association gave a silver cup to the best team in judging Ayrshires; this was won by the University of Idaho. The American Guernsey Cattle Club plaque was taken by the University of California. The Holstein-Friesian Association offered a silver cup which was taken by the University of Idaho. A silver cup is likewise offered by the American Jersey Cattle Club and this year it went to the team from Oregon Agricultural College.

The same institutions entered teams in judging of dairy products. Oregon Agricultural College took first and one of its team, H. B. Aldrich, was high man in the competition which included placing of butter, cheese, and market milk. The University of Idaho team was second in the composite score and took first in cheese placing. The team from University of California was the best group in the scoring of market milk. Clarence Fales of University of Idaho was second man in the contest and C. L. Lockhart, Oregon Agricultural College, third. All three were awarded gold medals.

The usual number of meetings of breed associations and other agricultural groups were held during the week. Chief in interest was the meeting of the exposition stockholders. E. A. Stuart of Carnation Farms was re-named president and O. M. Plummer was continued as secretary and general manager. The breed associations held banquets and short business sessions. The Oregon Buttermakers' Association met in annual convention as did the Oregon Horticultural Society. The Portland Chamber of Commerce entertained the boys' and girls' club participants with a banquet.

Dairy Sales

Low prices prevailed at the Holstein and Jersey sales. On election day voters of both Oregon and Washington registered disapproval of "anti-oleomargarine" laws and these decisions were thought to have seriously depressed the bidding. Eighty-seven Jerseys were listed for the sale but because of inactivity around the sale ring some were withdrawn. Approximately 65 were sent through to make up a sale average of $172 with a top of $785. The Holstein sale dragged on about the same level. Sixty-five individuals drew out an average of $167. The top was $525.

At the Jersey Association meeting resolutions were passed pledging renewed effort along educational lines looking to another fight on the dairy substitute question.

The Dairy Cattle

The dairy show was this year predominantly a Holstein show. The black and white led in numbers and quality. Eleven exhibitors from Wisconsin added interest and tone to the very excellent entry list. In fact, the Pacific International this year attracted such a galaxy of quality stock as to mark it one of the top Holstein shows of the year. Numbered among the forty-seven exhibitors were many small breeders, some of whom attained enviable positions in the placings on their entries. Throughout the dairy barns, in fact, was evidence of the role the show has filled as a "Live Stock University" in the dairy industry since dairy cattle last were admitted in 1918. Small breeders showing year after year indicate marked advancement in quality and finish of exhibits. The Holstein display evidenced the efforts of the extension service of the national association which has been very active in the Northwest for two years.

The Guernsey entries were more uniform than in past seasons but in numbers the breed was light. This popular breed has been making steady progress on the Pacific Coast but in past shows in Portland there have been wide variations in quality. Therefore the uniform excellence of the Guernseys this year is an encouragement. Jersey classes were fairly well filled but this part of the show fell far short of measuring up to its possibilities considering the position the home state of the exposition holds in the Jersey world. One class was so mediocre that the judge would not place a blue ribbon. No greater improvement in the dairy department of the exposition could be made than the assembling regularly for a period of years of a Jersey line-up in keeping with the quality of the Jerseys on the coast. Ayrshires maintained about the same level in numbers and character and Brown Swiss showed some decrease in entries. The latter breed has not as yet made much headway on the Pacific Coast. The best herd in the Northwest, that of W. O. Bohart, Montana, was not entered this year. All in all, the dairy department maintained its standards by virtue of the Holstein entries. Undoubtedly the unfavorable conditions of the season had a depressing influence on the show.

The judging was very satisfactory. There was an entire absence of disapproval. In fact, many commendatory expressions were heard.



JOHANNA RAG APPLE PABST, SENIOR AND GRAND CHAMPION HOLSTEIN BULL
OWNED BY J. E. PIEK, WISCONSIN



BOOTH OF COOS COUNTY, OREGON, FEATURING MELOWEST CHEESE MADE IN THAT COUNTY

Holstein-Friesians

Forty-seven exhibitors made 336 entries of Holsteins and brought about the only increase in numbers among the breeds. The line-up was generally declared the best the show has seen. Interest was increased by the presence of eleven exhibitors from Wisconsin, a new departure in the Holstein show. The eastern entries were recipients of a generous share of the awards. Carnation Farms, Washington, was the largest single exhibitor. For the first time Oregon exhibitors exceeded Washington in number. Washington has always shown a strong preference for the black and white and several famous herds have been developed there. Some of these were missing this year, due largely to the fact that most of the fall fairs and shows in Washington were cancelled and breeders were not fitting for the one show at Portland. The Oregon herds represented were generally small herds but indicated their quality by substantial positions in the awards.

The classes were generally strong with perhaps more uniform strength shown among the younger animals. The senior yearling heifer group was about the hardest class to place. Out of this group came the junior champion, Johanna Wayne Rue 2nd, entered by the Jefferson County Asylum, Wisconsin. This heifer was given a close run, however, by a dandy heifer, Hazelwood Fobes Heilo, entered by John L. Smith of Washington. A Carnation heifer took third place. The junior yearlings also had a close line-up with a daughter of Matador Segis Walker taking the blue in a close race with Lady Johanna Pontiac Rag Apple 3rd, a Wisconsin heifer, entered by Philip Linker. An interesting class was aged bulls. Matador Segis Walker 6th, long time grand champion of the exposition, his show days over, went down to third place, while the blue was taken by Sir Florence De Kol Soldene, an excellent bull from the little herd of Blair & Sandwick, Oregon. Second place went to a Wisconsin bull, Maple Row Sarcastic Lad, owned by the Jefferson County Asylum. The three-year-old bulls were strong. Although there were but four entries this class produced the grand champion, Johanna Rag Apple Pabst, entered by J. E. Piek, Wisconsin. The two-year-old bulls brought out a good individual in Phymire King Fobes from the herd of Dr. W. P. Phy, Oregon. When the aged cows were called, twenty entries responded and made up a strong class in which the first twelve were strong individuals. First place was taken by Agricultural School Farm, Wisconsin, on Barbetta Hengerveld De Kol. The four-year-old cows were not particularly strong. The next class produced the grand



NOBLE'S MAJESTY OF L., SENIOR AND GRAND CHAMPION JERSEY BULL
OWNED BY J. M. HELDT, WASHINGTON



IMP. BROADLAND'S LADY, SENIOR AND GRAND CHAMPION JERSEY COW
OWNED BY CRANDALL & LINN, OREGON

champion, Madame Artis Wayne Denver, of the Jefferson County Asylum herd that had taken similar honors at the National Dairy Show. The 2-year-olds brought out a strong individual that was runner up for senior championship honors in Jenny De Kol Segis Walker owned by Anton Vandecoevering, Oregon. The groups were strong. John L. Smith won permanent possession of the $1,000 trophy presented by Holstein breeders of the East, who were guests of the exposition in 1921, for the best produce of dam. For permanent possession it was necessary to win twice. Carnation Farms won in 1922 and the Smith entries last year and again this year.

Recapitulation shows Carnation Farms the heavy winners with five firsts, nine seconds, and seven thirds. The Jefferson County Asylum herd was next with seven firsts, one second, and three third places.

Judge—Ward W. Stevens, New York

Exhibitors: Carnation Milk Farm, Hugh Nisbet, John L. Smith, H. J. Evans, Thos. Yarr, C. H. Hennings, J. W. P. Dunlap, R. A. Anderson, James C. Chamberlin, A. H. Buck & Ed. Hoem, H. R. Shoultes, Washington; Dr. W. T. Phy, F. W. Durbin & Son, E. P. Lindow, John A. Lindow, P. A. Frakes, George E. Frakes, Adolph Benter, T. L. Sweany, Jr., Chris Siegenthaler, Adams' Eden Farm, Albert J. Evers, Jack Mowry, F. R. Beals, J. Luscher & Sons, Roy E. Stevens, J. P. Vandecoevering & A. J. Evers, J. P. Vandecoevering, Anton Vandecoevering, George A. McCart, Wm. McKeown, J. F. Peerenboon & Albert J. Evers, Joseph Erickson, Maracci & Cuzzolin, Blair & Sandwick, Charlie Melson, Oregon; Jefferson County Asylum, Baltz Hoesly, Pabst Holstein Farms, Carnation Milk Farms, Philip Linker, G. Keyes, H. E. Dickenson, Agricultural School Farm, Christ & Hackbarth, John Zoberlin, Wisconsin.

The awards are as follows:

Bull 4 years old or over—1, Blair & Sandwick on Sir Florence De Kol Soldene; 2, Jefferson County Asylum on Maple Row Sarcastic Lad; 3, Carnation Farm on Matador Segis Walker. Bull 3 yrs. old and under 4—1, Piek on Johanna Rag Apple Pabst; 2, F. W. Durbin on Sir Walker Inka Homestead; 3, E. P. Lindow on Twin Fir Sir Bos. Fayne. Bull 2 yrs. old and under 3—1, Dr. W. T. Phy on Phymere King Fobes: 2, Carnation on Sandy Segis Walker Matador: 3, Charlie Melson on Sir Florence Pietertje Sharp. Senior yearling bulls—1, Carnation on Harvest Jewel Matador: 2, Beals on Tidy Colantha Whiteness: 3, P. A. Frakes on Tidy Statesman. Junior yearling bulls—1, Jefferson Co. Asy. on King Mutual Fan: 2, Wm. McKeown on Segis Walker Matador Mechthilde: 3, H. R. Shoultes on Sir Adns. Perfection. Senior bull calf—1, Christ & Hackbarth on King Richmond Pontiac: 2 and 3. Carnation on Walker Lilith Colantha and Alfred George Matador. Junior bull calf—1, John Zoberlin on General Homestead Mercedes; 2, Adams Eden Farms on Adamseden Meth. Segis; 3, Jefferson Co. Asy. on King Waldorf Inka Lyon.

Cow 5 years old or over—1, Agricultural School Farm on Barbetta Hengerveld De Kol; 2, Carnation on Tillamook May Boon De Kol; 3, Adolph Benter on Esther Hengerveld Antonia. Cow 4 years old and under 5—1, Dickenson on Dolly De Kol Tirania Fayne; 2, Beals on Bessie Princess Snowball; 3, Jefferson Co. Asy on Charity Canary Denver. Cow 3 years old and under 4—1, Jefferson Co. Asy. on Madam Artis Wayne Denver; 2, Carnation on Carnation Matador Ourvilla; 3, Chamberlin on Laurie Prilly of Cerealia. Heifer 2 years old and under 3—1, Anton Vandecoevering on Jennie De Kol Segis Walker; 2, Beals on Nancy Active Tillamook: 3. Carnation on Carnation Matador Mercedes Selah. Heifer 2 years old and under 3—1 and 2, Carnation on Queen Pontiac Matador and Segis Matador Bonnell; 3, Chamberlin on Harriet Waldorf Boon Cerealia. Senior yearling heifer—1, Jefferson Co. Asy. on Johanna Wayne Rue 2nd: 2. Smith on Hazelwood Fobes Heilo; 3, Carnation on Carnation Pauline Matador. Junior yearling heifer—1, Carnation on Carnation Matador Aaggie Colantha; 2, Linker on Lady Johanna Pontiac Rag Apple 3rd; 3, Smith on Hazelwood Segis Bonheur. Senior heifer calf—1, Jefferson Co. Asy. on Empress Susie Waldorf; 2, Carnation on Carnation Matador Lulu Segis; 3, Smith on Hazelwood Segis Ormsby. Junior heifer calf—1, Smith on Hazelwood Heilo Skylark 2nd; 2, Linker on Lady Nettie Pontiac Star 2nd; 3, Carnation on Carnation Prospect Gem.

Cow having official yearly record begun at 5 years old or over—1, Beals; 2, Evans; 3, Carnation. Cow having official yearly record under 5 years of age—Adolph Benter and Jefferson Co. Asy. each entered cows scoring 95%; 2, Evans; 3, Evers and Jefferson Co. Asy. A. R. cow with two progeny owned by exhibitor—1, Carnation; 2, Beals; 3, Chamberlain. Get of sire—1, Jefferson Co. Asy.; 2, Smith; 3, Carnation. Produce of cow—1, Smith; 2, Chamberlain; 3, Carnation. Exhibitor's herd—1, Jefferson Co. Asy.; 2, Carnation; 3, Chamberlain. Young herd—1, Jefferson Co. Asy.; 2, Carnation; 3, Smith. Calf herd—1, Carnation; 2, Smith; 3, Jefferson Co. Asy. Dairy herd—1, Beals; 2, Carnation; 3, Evans.

Senior and grand champion bull—Johanna Rag Apple Pabst. Junior champion bull—King Mutual Fan.

Senior and grand champion female—Madame Artis Wayne Denver. Junior champion female—Johanna Wayne Rue.

The special prize for state herd went to Wisconsin. Washington took second place and Oregon third.

The Matador Segis Walker Trophy was won by the Jefferson County Asylum.

Jerseys

The Jerseys, second in numbers, were something of a disappointment to the ringside. Twenty-four breeders exhibited two hundred individuals which ranged from a strong group in the senior bull class down through a very ordinary group of older cows into a considerably better showing in the younger classes. On the whole, the bulls this year were much better than the females, a complete reverse of the situation prevailing for two years past. The younger classes brought out some promising growthy young stuff which will be favorably heard from later on. The best bull class was the aged group in which Noble's Majesty of L took first place and then went on to the senior and grand championships for the third time. This remarkably good bull has been grand champion three times at the Pacific International. Last year he was runner-up, but was finally beaten out by a narrow margin. This bull is a stylish show bull of American breeding and is a creditable representative of the breed. He heads the small herd of J. M. Heldt, Washington, and interest this year attached to a few of his daughters who did fairly well in the competition but did not measure up to the distinction of their sire. Second place went to Foxhall's Chief Engineer, another good bull, but lacking the easy refinements of the winner. The bull classes were then rather ordinary until the senior bull calves were brought out. This was a good sized class of typy youngsters and competition was close. The junior bull calves made up another good class, the blue ribbon going to an unnamed March calf. Another promising calf in this group was St. Mawes Beauties St. Mawes shown by D. C. Howard.

The aged cows were very ordinary with the exception of the first place winner, Imp. You'll Do Fannie, shown by Pickard Bros. The winner in the next class could only make second at the Oregon State Fair and in the three-year-olds no first place was given. The young female classes were rather uniformly good. The cows having official yearly records begun under five years of age were a strong group and the selection was close. St. Mawe's Oxford Lady from the comparatively recent herd of D. C. Howard took first place. In get of sire, the first place group of L. G. Smith was a good one. The four entries displayed uniformly a wealth of Jersey character and all together made up a very promising group. Another strong group was the young herd of F. E. & C. F. Bates, Oregon. Competition was close in this class which however had but four entries. An imported cow, Imp. Broadland's Lady, was grand champion female in a very close race. She is a little smaller than some of the Jerseys that have been popular in the Northwest but was exceptionally smooth and showed a world of quality.

Judge—Professor F. W. Atkeson, University of Idaho

Exhibitors: L. G. Smith, Fox Bros., V. S. Abraham, M. K. Abraham. E. L. Power, Frank B. Davis, D. C. Howard, Kenneth A. Kesterson, J. L. Bowman, D. B. Yoder, Lewis E. Judson, Will Behrmann, Jr., Pickard Bros., T. H. Acree, Lester R. Campbell, Ed. Schoel, Crandall & Linn, F. E. & C. F. Bates, K. Hanneman, A. W. Agnew, Oregon; A. J. Firkins & Son, Idaho; J. M. Heldt, O. P. Dosland, W. W. Howard, Washington.

The Jersey awards are as follows:

Bull 4 years old or over—1, Heldt on Noble's Majesty of L; 2, Fox Bros. on Foxhall's Chief Engineer; 3, Behrmann, Jr., on Carry On of Oregon. Bull 3 years old under 4—1, Howard on Captain Tristrams St. Mawes; 2, Abraham on Popelora's Golden Pogis. Bull 2 years old and under 3—1, Crandall & Linn on Glen Tana Morocco Majesty; 2, Bowman on Halcyon's King of Oregon. Senior yearling bull—1, Fox Bros. on Imp. Eagle's Double Boy; 2, Behrmann on La Creole's Golden Pogis; 3, Davis. Junior yearling bull—1, Firkins & Son on Nutwood Count; 2, Acree on Rex of Valhalla. Senior Bull Calf—1, Smith on Chimes Fussy Clair Val of S. B.; 2, Pickard Bros. on Glow's Tiddledywink Syracuse; 3, Bates on Unnamed. Junior bull calf—1, Bates on Unnamed; 2, Howard on St. Mawes Beautie St. Mawes; 3, Davis on Captain Tristram's Image.

Cow 5 years or over—1, Pickard Bros. on Imp. You'll Do Fanny; 2, Crandall & Linn on Imp. Jersey Volunteer Bess; 3, Bates on Luckiamute's Hope. Cow 4 years old under 5—1, Crandall & Linn on Imp. Broadland's Lady; 2, Howard on St. Mawes Suzette of M. L. P.; 3, Pickard Bros. on Vive La France III; 4, Howard on St. Mawes Lad's Oxford Lady. Cow 3 years and under 4—(No first awarded) 2 and 3, Bowman on Halcyon's Blue Bell and Halcyon's Buttercup. Cow 2 years old and under 3—1, Crandall & Linn on Imp. Xenia's Oxford Lady; 2, Howard on Dream of St. Mawes; 3, Bates on Belle of Rich Lea. Senior yearling heifer—1, Howard on St. Mawe's Blossom's Gelatine; 2 and 3, Hanneman on St. Mawe's Marcia and St. Mawe's Silent Glow. Junior yearling heifer—1, Bates on Lorita's Princess; 2, Behrmann, Jr., on La Creole's Daisy Bell; 3, Schoel on Oxford's Glow. Senior heifer calf—1, Crandall & Linn on St. Mawe's Gypsy Rose; 2, Howard on St. Mawe's Rosaires Dollie; 3, Smith on Chimes Pearl of S. B. Junior heifer calf—1, L. Power on Rosaire's Noble Twin; 2, Heldt on Unnamed; 3, Ed. Schoel on Oxford's Betty D.

Cow having official yearly record of 5 years or over—1, Behrmann, Jr., on La Creole's Saviour Bell; 2, Hanneman on Poet's Mabel Mowat. Cow having official yearly record begun under 5 years of age—1 and 2, Howard on St. Mawe's Oxford Lady and Noble's Tinkler's Mabel; 3, Hanneman on Plymouth's Yockey. Advanced Registry cow with two of her progeny—1 and 3, Behrmann, Jr., on La Creole's St. Saviour's Bell and Lillys Pet Mabel; 2, Hanneman on Poet's Mabel Mowat. Get of sire—1, Smith; 2, Schoel; 3, Bates. Produce of cow—1, Howard; 2, Crandall & Linn; 3, Hanneman; 4, Behrmann, Jr. Exhibitor's herd—1, Crandall & Linn; 2, Bates; 3, Howard. Young herd—1, Bates; 2, Schoel; 3, Howard. Calf herd—1, Power; 2, Abraham. Dairy herd—1, Crandall & Linn; 2, Howard; 3, Behrmann, Jr.

Senior and grand champion bull—Noble's Majesty of L. Junior champion bull—Imp. Eagle's Double Boy.

Senior and grand champion female—Imp. Broadland's Lady. Junior champion female—Loritta's Princess.



JEWEL OF ROSE CITY, SENIOR AND GRAND CHAMPION GUERNSEY COW
OWNED BY A. L. GILE, WASHINGTON



WEISER'S KING TOM, SENIOR AND GRAND CHAMPION GUERNSEY BULL
OWNED BY H. J. WEISER, WASHINGTON

Guernseys

An even dozen exhibitors made up a showing of about 85 head of Guernseys. This number is not up to the standard of the Pacific International but the general tone of the entries was good. The tops, in general, perhaps, were not as outstanding as has been the case in some years, but as an offset, there was an entire absence of ragged stuff. The result was a very uniform showing with quality very well distributed through the classes. The aged cows were good. Jewel of Rose City, twice previously grand champion cow, worked up again through this class to another grand championship. It was this group also that produced the runner-up, Queen Zeffrys Edgemoor Girl, owned by G. M. Vetter, Washington. This cow had not received the advantage of extensive fitting for the show as she was running on pasture up to the time entries were made and became a last minute entry and the surprise of the female classes. The senior heifer calves made up another good class and brought out some close competition.

Several good small herds established in recent years did not show this year owing to the abbreviated circuit in the West. Albion L. Gile won a large proportion of the first and second awards. He took three of the championships, winning senior and grand championship on Jewel of Rose City, junior championship on Lavender Chicona, and took the junior championship bull award on Chicona Joseph Pride, a splendid young individual. H. J. Weiser, Washington, showed the senior and grand champion bull, Weiser's King Tom, a bull with a nice top, splendid head, and good depth.

Judge—E. V. Ellington, Washington State College

Exhibitors: D. J. Elliott, Francis Hughes, Leo Farr, P. C. Adams, Springbrook Farm, G. Mitzner & Son, Oregon; Valley Gem Farms, Hal Bisnett, H. J. Weiser, G. M. Vetter, John Olson, Albion L. Gile, Washington.

The awards are as follows:

Bull 4 years old or over—1, Weiser on Weiser's King Tom; 2, Gile on ———. Bull 2 years old and under 3—1, Mitzner & Son on Keewaydin's Jolly Fermain; 2, Valley Gem Farm on Valley Gem Paragon. Senior yearling bull—1, Elliott on Summerfield's Victor. Junior yearling bull—1, Gile on Chicona Joseph Pride. Senior bull calf—1, Valley Gem Farms on Mixter Senator; 2, Valley Gem Farms on Unnamed; 3, Gile on Chicona Puck. Junior bull calf—1, Gile on Chicona Dumas; 2, Springbrook Farm on Spotlight's Hero of Springbrook; 3, Valley Gem Farms on Valley Gem Pagan.

Cow 5 years old or over—1, Gile on Jewel of Rose City; 2, Valley Gem Farms on Gana of Valley Gem; 3, Weiser on Park's Auvaleen. Cow 4 years old under 5—Vetter on Queen Zeffry's Edgemoor Girl; 2, Francis Hughes on Red Wing Doctor Phillips. Cow 3 years old and under 4—1, Gile on Sunlight of Chicona; 2, Valley Gem Farms on Lishman's

Nancy of Valley Gem; 3, Valley Gem Farms on Lishman's Gana of Valley Gem. Cow 2 years old and under 3—1, Vetter on Lady Glenwood of Littlebrook; 2, Gile on Starlight of Chicona; 3, Springbrook Farm on Victoria's Beaty of Springbrook. Senior yearling heifer—1, Gile on Carmen of Chicona. Junior yearling heifer—1, Gile on Maybelle of Chicona; 2, Mitzner & Son on Molalla Boy's Lassie; 3, Bisnett on Princess Lilly of Nobles Farm. Senior heifer calf—1, Springbrook Farms on Jennie Daisy of Springbrook; 2, Bisnett on Hazel of Nobles Farm; 3, Gile on Janella of Chicona. Junior heifer calf—1, 2, and 3, Gile on Lavender of Chicona, Lucretia of Chicona, and Derinda of Chicona.

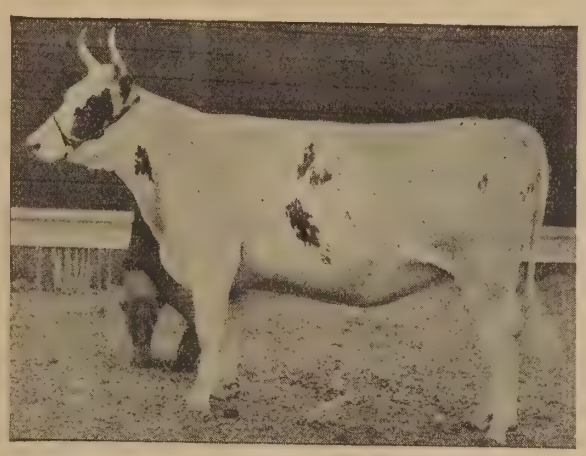
Cow having official yearly record begun under five years—1, Gile on Jewel of Rose City; 2 and 3, Valley Gem Farms on Gana of Valley Gem and Nancy Lee of Valley Gem; A. R. cow to be shown with two of her progeny, Valley Gem Farms on Gana of Valley Gem. Get of sire—1, Gile; 2, Springbrook Farm; 3, Valley Gem Farms. Produce of cow—1, Vetter; 2, Gile; 3, Valley Gem Farms. Exhibitor's herd—1, Gile; 2, Valley Gem Farms. Young herd—1, Gile. Calf herd—1, Gile; 2, Valley Gem Farms; 3, Springbrook Farm.

Senior and grand champion bull—Weiser's King Tom. Junior champion bull—Chicona Joseph Pride.

Senior and grand champion female—Jewel of Rose City. Junior champion female—Lavender of Chicona.

Ayrshires

As in the case of the Guernseys the Ayrshire show was short in numbers but improved in uniformity. Likewise, also, the tops have been excelled at the Pacific International. It was encouraging to view the improvement evidenced in the young classes which were the best in the competition except the aged cow class and the two-year-old bulls. The outstanding female of the show was the junior yearling heifer, Wenatchee Stewart Lady, and her designation for the purple banner was early a foregone conclusion. She is a mighty sweet heifer with an abundance of quality and a real Ayrshire conformation. A Wisconsin entry from the famous herd of Adam Seitz was the best of three good two-year-old bulls and was made grand champion. Another Seitz entry, Lucindy of Spring Castle 4th, topped the group of aged cows which included three other typy individuals of considerable strength. A four-year-old, Empress Lady of Wenatchee, was senior champion female and came from the herd of E. W. Van Tassell, Washington, as did the junior champion bull, Wenatchee Scottish Cavalier. The Van Tassell herd, always a leading factor in the show, staged pretty competition with the herd of W. J. Domes, Oregon, which also is always on hand at the Pacific International. While both herds are showing improvement from year to year, the Van Tassell entries had somewhat the edge and took the majority of the blue and red ribbons.



STEWART GIRL OF WENATCHEE 3RD, JUNIOR AND GRAND CHAMPION AYRSHIRE FEMALE
OWNED BY E. W. VAN TASSELL, WASHINGTON

Judge—A. C. Oosterhuis, Wisconsin

Exhibitors: E. W. Van Tassell, Washington; Earlcrest Stock Farm, A. F. Domes, W. J. Domes, Oregon; Adam Seitz, Wisconsin.

The awards were as follows:

Bull 4 years old or over—1, Van Tassell on Cavalier's Scottish Emperor. Bull 2 years old and under 3—1, Seitz on Cavalier Sherry Redman; 2 and 3, Domes on Shortie of C. H. A. F. and Panagin on C. H. A. F. Senior yearling bull—1 and 2, Domes on Sheridan Boy and Bussie of C. H. A. F. Junior yearling bull—1, Domes on Junior of C. H. A F. Senior bull calf—1, Van Tassell on Wenatchee Scottish Cavalier; 2 and 3, Domes on Dolly Boy of C. H. A. F. and Jolly Boy of C. H. A. F. Junior bull calf—1 and 3, Van Tassell on Wenatchee Scottish Cavalier and Wenatchee Royal; 2, Domes on Our Laddi of C.

Cow 5 years or over—1, Seitz on Lucindy of Spring Castle; 2, Domes on Fondula Girl of C. H. A. F.; 3, Van Tassell. Cow 4 years old—1 and 3, Van Tassell on Empress Lady of Wenatchee and Lady Bruce of Wenatchee; 2, on Princess Snowdrop. Cow 3 years old and under 4—1, Van Tassell on Wenatchee Blossom; 2, Domes on Little Miss Sentinel of C. H. A. F. Cow 2 years old and under 3—1, Van Tassell on Ellen Scott of Wenatchee; 2 and 3, Domes on Beauty of C. H. A. F. and Daisy Bells of C. H. A. F. Senior yearling heifer—1 and 3, Van Tassell on Stewart Girl of Wenatchee 3rd and Blue Bell of Wenatchee; 2, on Dulla Again of C. H. A. F. Junior yearling heifer—1 and 2, Van Tassell on Wenatchee Scott and Wenatchee Stewart Lady; 3, Domes on Miss Peter Pan II of C. H. A. F. Senior heifer calf—1, 2, and 3—Van Tassell on Stewart Girl of Wenatchee, Wenatchee Scottish Belle, and Wenatchee Iota. Junior heifer calf—1 and 3, Domes on Club Girl of C. H. A. F. and on Miss Peter Pan; 2, Van Tassell on Wenatchee Lady Fair.

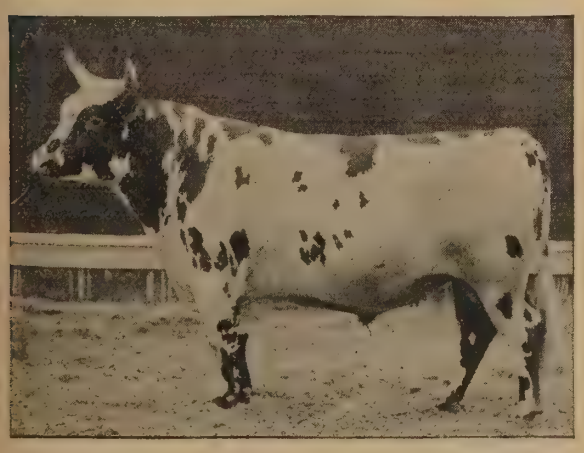
Cow having official record begun at 5 years or over—1, Van Tassell on Lady Bruce 2d. Cow having official record begun under 5 years—1, Seitz on Lucindy of Spring Castle 4th; 2 and 3, Van Tassell on Empress Lady of Wenatchee and Ellen Scott of Wenatchee. Get of sire—1 and 2, Van Tassell; 3, Domes. Produce of cow—1 and 2, Van Tassel; 3, Domes. Exhibitor's herd—1, Van Tassell; 2 and 3, Domes. Young herd—1 and 2, Van Tassell; 3, Domes. Calf herd—1, Van Tassell; 2, Domes. Dairy herd—1, Van Tassell; 2, Domes.

Senior and grand champion bull—Cavalier Sherry Redman. Junior champion bull—Wenatchee Scottish Cavalier.

Senior champion female—Empress Lady of Wenatchee. Junior and grand champion female—Stewart Girl of Wenatchee 3rd.

Brown Swiss

The Brown Swiss competition was keen. All the entries were from Oregon herds. Two or three good herds that have become established in the mind of the ringside as fixtures at the show were not on hand this year. Many of the entries were not what the breed should be in udder development. Progress was noted in the general make-up of the classes. T. Brugger & Son lacked but one of making a clean sweep of the championships. Their good bull, Jessie's Lot, for several years a winner, was senior and grand champion, and an April calf, Gresham



CAVALIER SHERRY REDMAN, SENIOR AND GRAND CHAMPION AYRSHIRE BULL
OWNED BY ADAM SEITZ, WISCONSIN

(Continued on page 613)

"Here, where land is good and cheap farming is a paying business"

says F. A. SPEARS, *and he proves it*



F. A. SPEARS
(From an actual photograph)

There is nothing startling about the story of F. A. Spears. Many farmers have done better in Montana.

Spears isn't rich, but he has a fine farm and plenty to live comfortably on. And all he has he has made in Montana.

We have chosen his story to tell because he is typical, because we know that what he has done is what any industrious farmer can do in Montana.

Ten years ago, Spears worked in a store. Besides that, he had nineteen acres of irrigated land next to town, just a home and garden, with a cow and a few chickens.

But Spears had been brought up on a farm back in Iowa, and he began to hanker for a real place to dig.

So he rented out the nineteen acres, took his family and goods—a few household things, a saddle horse, five head of cattle, and about a hundred chickens—and went out to homestead half a section.

About two years after that the nineteen acres sold for $4500, but Spears had to wait for his money.

And in the meantine he had to break his land, put up buildings and fences, sink his well, buy farm equipment and livestock to operate with, and somehow manage to live until the new farm began to bring returns.

Today, after ten years, besides the original half section, Spears has paid more than half on a full section adjoining.

He has a good home, with a good barn, silo and ice house. His stock, poultry, garden and little orchard give him more than a living by themselves, and he makes a substantial profit every year on his field crops.

He is happy. He is free from debt, except for what he still owes on the additional section he bought. And he believes in Montana.

And there are thousands of Montana farmers about whom we could tell much the same story. Like Spears, they have been able to make good on a small start.

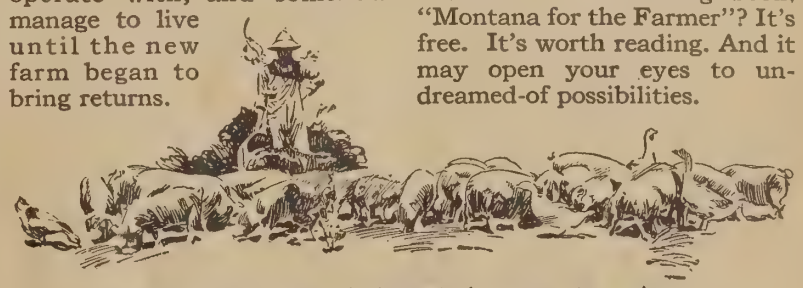
Homesteading days in Montana are over. But land there is cheap, cheaper than it will ever be again.

And the Montana acre is proved to have a larger earning power than that in many states where land costs from two and a half to five times as much.

Montana is a good place to live. Its climate is healthful; its mortality is the lowest in the United States. Its school system has been pronounced the finest in the country. Its vast resources assure it a great industrial future.

Farmers everywhere owe it to themselves and to their children to learn about the opportunities Montana offers as a place to farm and a place to live and grow up.

Why not send the coupon below for our interesting book, "Montana for the Farmer"? It's free. It's worth reading. And it may open your eyes to undreamed-of possibilities.



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Fully 90% of all dairy rations are lacking in bulk and succulence, say authorities. Bulky feeds, mixed with concentrates, aid digestion. They also keep the bowels open.

Make DRIED BEET PULP

A part of your dairy ration

This succulent vegetable feed gives bulk in a remarkably palatable and healthful form. It is laxative, easily digested and rich in carbohydrates. It is a wonderful milk producer, promotes health and increases profits. You can use Dried Beet Pulp with corn silage or to replace it.

Ask Your Feed Dealer

THE LARROWE MILLING CO., Detroit, Mich.

[522]

EDITORIAL COMMENT



TO THE DAIRY COW

If it were not for you, "dairy cow", a government by the people, of the people, and for the people could not be so successfully developed nor would it last; people of nations could not be properly fed; little children would be stunted, undernourished, less mentally alert, liabilities to a nation; farm homes could not be so successfully developed; the soil would be more rapidly depleted; less happiness would reign in the homes of many; the heart of man would cry out for the products of your efforts. Surely you have contributed much to the happiness and prosperity of mankind. For this we render thanksgiving and implore your keepers to give you a square deal.

HIGH AND LOW COWS

The last annual report of the Farmington Cow Testing Association, Wisconsin, shows that the ten high cows produced 5,033 lbs. of fat for the year. The ten low cows produced 1,246 lbs. fat for the same period. Any two of the high cows produced 1,006 lbs. fat.

The value of the fat above feed costs for the ten high cows was $1,816.77. Only $213.68 above feed cost is credited to the ten low cows. It took 8½ of the ten poor cows to produce as much net profit as was produced by one of the high cows.

Production per cow is a significant thing when backed by such a striking illustration. One man with 10 cows like the first group could produce as much net profit as another man with 86 cows like the second group.

TOO MANY STARTERS

"There are too many men starting things," said a very dependable authority in the dairy industry recently when discussing production and marketing of dairy products.

This same thought is brought out by the authors of a recently published bulletin by the Minnesota Experiment Station in a study of co-operative marketing. It was the conclusion of the authors of this bulletin, after careful study and analysis of all of the information available on the history of co-operative marketing in this country, that altogether too often the promoters of co-operative marketing schemes and plans appear to be more interested in "starting things" than they do in knowing how to successfully execute the follow up. Get the growers' names on the contract first, the successful marketing of the products is a minor factor and can easily be taken care of later—sign here—is the attitude of many and has been the forerunner of many failures.

It is mighty easy for these professional starters to get a lot of irons in the fire and fan them into a white heat with temporary enthusiasm but it is quite another task to know what to do with them before they burn up or grow cold for want of knowledge on what to do and how to do it.

WHEAT PRICES STILL ADVANCING

When wheat made its rapid advancement in price this fall, a story to the effect that it was done for political reasons was given wide circulation and believed by some people. Since election day, November 4th, wheat has advanced in the neighborhood of 15 or more cents per bushel and other crops, such as rye, barley, and corn, have also advanced in price. We have not seen any comments as to what might be the cause of the rapid advancement in the prices of these farm products. As near as we have been able to determine, prices of cereals have advanced rapidly because there is a world's shortage of these products. Several wheat countries have short crops and the world has come to our country for some of its breadstuff. The corn crop is estimated by the government to be about five hundred million bushels less this year than last and of poorer quality. It seems reasonable to us that the prices of farm products have advanced because there is a world's shortage of these crops and that political parties have had nothing to do with the advancement of the prices of these several farm commodities.

We think it well for people to consider the factors that affect prices of farm products rather than to be mislead into thinking there is some artificial way of stimulating prices. We can not hope to make progress in solving the agricultural problems with false and erroneous statements. What is needed is accurate information.

FUTURE LIVE STOCK MEN

The condition of any business is a reflection of the characters and personalities of those engaged in it. It is true of farming and particularly is it true of the business of breeding live stock. The heights attained today in the development of our herds and flocks were reached not by chance but because men desired improvement and had the initiative and the energy to bring it about.

Why do some communities lag behind in the quality of their live stock? Sometimes, it is true, because of unfavorable conditions of soil and climate but more often because there are not real stockmen among the inhabitants. Economic necessity has its influence, of course, but the individual reacts to it according to the characters of which he is made and the equipment with which he is endowed. It is said that "real stockmen are born, not made" and there is much truth in the saying. It is true also that the born stockman can be made a better one by training him for the job.

The live stock in this country 25 and 50 years hence will be what the coming generation of stockmen make it. Young men are growing up and taking over old established herds or preparing to start new ones. They must know more and they must be fired with the ambition to attempt more or we shall not be able even to retain the development we now have.

They need training and it should begin early. The boys' and girls' club work is a field in which interest is aroused and the metal of the youngsters tried out. Many high schools could well give some attention to organizing the courses so that more live stock work could be taught in a practical manner. Many of the colleges of agriculture are offering short courses which are a combination of definite instruction with inspiration to do worthily some worthwhile work that has proved to be especially well suited to equip young stockmen for their life work. Many take advantage of these courses, but many more should. It means much to them individually and it means much to the communities of which they may be members.

PUTTING OVER SOMETHING BIG

Agriculture is handicapped because we have so many people who desire to put over something big in its behalf. There seems to be little consideration given to those who believe that advancement in any enterprise is a drilling process. As we look over the development of large business enterprises, we find it has come through hard work, close application to business, and not by attempting to put over something big. The dairy farmer should, now and then, sit on a sack of feed in the winter and ask himself these questions: What is it I can do to increase my income? Am I keeping the right kind of cows in my barn? Are they capable of returning me a profit? Am I feeding my cows right and am I otherwise giving them the attention necessary to make them good producers? What can I do in other ways that will increase my returns? Is it possible, through co-operation with my neighbor, to manufacture my products and put them on the market cheaper than private agencies? If so, how?

When a person begins to ask questions as to what he can do to his herd, his land, his crops, manufacturing his products and marketing them that will lead to better returns, he begins to see, immediately, that agriculture does not offer opportunity of putting over something big in a short time. Its progress must be made by close study of one's business, close application to work, and by intelligent direction of that work. What a wonderful thing it would have been if someone could have thought four years ago, or since, of something outstanding that could be instituted which would bring immediate relief to agriculture! Of all the thinking that has been done by earnest, sincere, intelligent men, nothing has yet been found to bring immediate relief. This does not mean we should give up and say nothing can be done, for anyone who has given a moment's consideration to agriculture can immediately see opportunities everywhere for improvement. An intelligent analysis of agriculture as a vocation will soon reveal that nothing can be put over on a big scale to bring immediate results to this industry. Advancement will come through careful planning and intelligent work.

TO IMPROVE AGRICULTURE

The past few years have brought many plans and suggestions for helping agriculture. Some of them are sound, some of doubtful value, and others worse than worthless. Every fair and honest thinking man, whether he be interested directly or indirectly in agriculture, has felt the necessity of bringing agriculture back to its proper relationship with other industries. This is no small task, for agriculture is so large and its interest so varied and complex that no one thing is wholly responsible for its condition and no one thing will restore it to its proper relationship to other industries. It should be encouraging to everyone to note that prices of many of the agricultural products have advanced sufficiently to make them on a parity with other commodities.

In a recent address B. H. Hibbard, Department of Agricultural Economics, University of Wisconsin, made the following suggestions:

"The government can influence farm prices to no small extent by furnishing information concerning foreign markets; by taking part in the rehabilitation of European people and governments; by furnishing information as the basis of readjustment of American agriculture to fit present conditions; by fostering farmer organizations to the extent of giving them the sympathy and help, the latter mainly along educational lines; by policing and regulating the operations of marketing; by making credit facilities available. Last, and perhaps most important of all, by using its influences in taking out of the agricultural category great areas of marginal land and putting it to some other use, and by furnishing a more intelligent basis by which land may be valued. With these conditions the farmers will have an opportunity of working out their own salvation."

We have commented many times on the undesirability of bringing more land under cultivation and we particularly regret that there are many marginal farms, that is, poor farms, now under cultivation. Both federal and state governments are responsible for this situation and when such periods of depression come to agriculture as we have experienced in the last three years, many of the unproductive farms must be abandoned. This incurs an unnecessary loss of both time and money and from people who can ill afford such setbacks.

The New-born Calf

What care should be given new born calves in order to safeguard them against contracting digestive troubles soon after birth?

Missouri. N. H. R.

Have the calf dropped in a clean, recently disinfected stall, which should be again cleaned and rebedded as soon as the calf is on its feet. Thoroughly clean the navel and disinfect with iodine as

soon as the calf is born. See that the calf sucks each of the four teats a little at its first meal and leave it on the cow about three days. A quart of milk allowed three times per day is sufficient for the first three or four days. After this the amount should be increased gradually up to two quarts for each feeding. The calf's stomach is small and requires small amounts fed often. More trouble results from overfeeding than underfeeding. Whole milk should be fed for nearly a month, diluted a little at first if from a high testing cow and gradually changed over to skimmilk. Water should be given as soon as the calf will take it and grain (whole oats and corn) and hay should be supplied as soon as the calf will take notice of it. Overfeeding of alfalfa may tend to cause digestive trouble at the beginning.

Tramping Silage

HOARD'S DAIRYMAN:—In a recent issue of Hoard's Dairyman you ask for experiences on the value of tramping silage. When we began to fill our three silos with our own outfit we were short of help and tried to dispense with anyone in the silo. We went in every morning and leveled off the cut corn, tramping it somewhat, then left it to be settled by the succeeding day's cutting. Two objections to this system soon developed: First, it is not possible to get in anywhere near the amount of corn the silo should hold; and, second, if the corn becomes the least bit dry or frosted before ensiling it is practically certain to develop mold, especially at the outer edge. We now use all the help we can spare in the silo at filling time and believe it pays to do so.

New York. FRED H. TUTTLE.

Shavings and Acidity

I find it necessary to use a considerable quantity of pine shavings and sawdust for bedding. Will this resinous material have a tendency to increase acidity of the soil? Would the product of white pine be much better? Would the use of gypsum in the gutters and manure absolutely keep the soil sweet and fit for alfalfa?

Perryville, Md. H. N.

We have no information indicating that shavings or sawdust used as bedding will increase the acidity of the soil any more than the use of straw. The largest factor in creating soil acidity is the removal of lime in the growing crop and the leaching of the soil itself. There is some acidity developed through the fermentation or rotting of the organic matter such as manure and stubble that is plowed up. This, however, is a factor that cannot be avoided where good crops are expected. Indeed, this fermentation is essential to good crops.

The major objections that we have had as to the use of shavings for bedding are that they do not decompose readily in the soil and some men are prejudiced against their use. The statement has been made that the shavings and sawdust have little actual fertilizing value. It would be our opinion that the white pine shavings would decay less readily than would the hardwood shavings.

It is doubtful whether enough gypsum could be used in the gutters to replace the lime that is taken from the soil by the growing plants. It would, of course, help according to the amount used. We anticipate, however, that where soils show acidity, the best control is to apply lime in requisite amounts as shown by tests.

Pole Beans With Corn

HOARD'S DAIRYMAN:—Getting the most protein out of home grown feeds is a problem worthy of more serious thought and study at the present time than ever before. In these days of high grain prices and comparatively low milk values, it behooves the dairyman to conserve every pound of protein possible, for protein is the highest priced nutrient of purchased mill feeds.

Growing soy beans with the corn for silage is a practice that has become quite common among dairymen, for this purpose, and is a step in the right direction. The practice has several disadvantages, however. The seed is so small in comparison with the corn that uniform planting is somewhat difficult. The bean plants have a tendency to fall away from the corn stalks and are not all gathered by the binder. The comparatively short bean plant does not fasten well into the bundle of corn and considerable waste results in handling the bundles.

In seeking to find a suitable legume to grow with silage corn, that would overcome these difficulties, the Rhode Island Experiment Station tried pole beans in the corn with excellent results. County agents were quick to pass the idea on to farmers and several demonstrations were conducted. The demonstrations in each case proved so successful that many farmers took it up, and it is now becoming a common practice.

Two varieties were found to be best adapted, the Horticultural Pole Bean and the Kentucky Wonder. Both beans produce a heavy growth of climbing, twining vine and yield heavily of good sized beans. The vines climb the cornstalks and are thus easily cut by the binder and held firmly in the bundle.

Two general methods of planting were used. The first was to mix one part beans and two parts corn in the hopper of the corn planter and plant in drills, using about one-half bushel of beans and twelve quarts of corn to the acre.

The second method was to check row the corn three feet each way and when about three to four inches high to go over the field with a hand planter of the stab type, jabbing in three to four beans to every hill of corn.

Both methods have worked very successfully, the second method having somewhat the advantage in that the corn will get a start and furnish a good pole for the beans to climb on. Being planted later the beans do not become as mature and there is less dying down of the vines, thus giving a greater yield of green forage to the acre.

The Horticultural Pole bean is a shell bean and has a good demand in the market for this purpose. The Kentucky Wonder is an excellent and prolific green podded string bean, having pods from six to eight inches long. Many farmers have found it profitable to pick the beans and market them as a cash crop, leaving the vines to go into the silage as a source of protein. Whether this practice is the most profitable or whether the beans should be left on the vines is questionable as the beans are rich in protein. The answer would probably depend upon the market price of the beans. At any rate the silage is of considerable more value for having the bean vines with the corn, for the vines not only add materially to the total tonnage but also contain considerable protein.

One of the doubts often expressed by farmers before trying this practice is that the beans may cross from one row to the other and hinder cultivation and harvesting. Little trouble will be had from this source for the vines begin to twine early in their growth and will seize on to the object nearest them, consequently little crisscrossing is experienced. This is especially true where the beans are planted by the second method. The yield of vine per acre from either of these varieties is about double that of soy beans.

Rhode Island. SUMNER D. HOLLIS.

(EDITORIAL COMMENT:—In reply to our inquiry Mr. Hollis informs us that the growth of beans does not seem to interfere with the growth of corn and the shade of the corn does not seem to injure the growth of beans. Test plots at the state experiment station showed a yield of 20 tons per acre, of which 4 tons were beans. This percentage of beans is greater than we would have expected. What has been the experience of those who have tried out this combination? Does it increase the total tonnage from an acre of silage?)

Scours or Diarrhea in Calves

"The most common ailment of calves and the one giving the most trouble in calf raising is diarrhea or scours," say Frandsen and Nevens, of Nebraska. "It occurs most frequently in young calves, though older calves are also subject to it. There are a number of causes of this trouble, the most frequent of which are overfeeding, temperature of the milk, and amount fed; character of the feed —that is, a change from sweet milk to sour, or the feeding of moldy or damaged feeds; exposure of calves to cold or dampness; unclean pails or feed troughs from which calves are fed. The last is a frequent and often unsuspected cause. Steps should be taken to stop the trouble on first indications, because the calves will become weakened and may finally succumb through lack of vitality. Older calves may develop chronic scours, which prevents them from growing rapidly.

"The first step is to determine the cause and remove it. The milk allowance should be cut down one-half, and in severe cases omitted entirely for one or two feeds. Usually a physic, such as one of flour and lime water, should be given. Lime water assists in removing any irritating materials from the digestive tract. The first action of castor oil is that of a physic, and later it acts as an astringent. Common remedies are scalded milk, flour and lime water. The latter, which should be clear water after the slaked lime has settled, may be mixed with the milk in equal parts. In case more drastic measures are necessary, two teaspoonfuls of one part salol and two parts subnitrate of bismuth may be given in a small quantity of milk every six hours; or one teaspoonful of laudanum may be given every twenty-four hours. The latter is somewhat dangerous for young animals and should not be used except as a final resort."

Alfalfa For Pasture and Hay

HOARD'S DAIRYMAN:—For the past four years H. E. Hazen of Southeastern Iowa has pastured a ten-acre field of alfalfa with hogs, horses, and cattle. Besides furnishing a pasture which can not be beat it helps him with his hay crop. The first cutting usually comes at a very busy and rainy time. He has delayed cutting for several weeks by pasturing and says he gets a much finer hay as a result.

In the spring he turned his stock on the alfalfa on April 22. Forty-six head of hogs, brood sows and shoats, 10 head of horses, and 23 head of cattle had the run of the ten acres. The cattle were yearlings and a few cows which also had calves at side. These he did not include in the 23 head mentioned since they were too small to eat much alfalfa. The horses were colts and a few older. Over Sunday the 12 head of work horses were added to this number.

If the spring is very wet, so that the stock will injure the alfalfa by tramping, he does not turn in. However, for the past four years he has had no damage from tramping. The stock stay on pasture until the latter part of May and then they are put on bluegrass. In a field this size the stock kept the alfalfa from making a coarse, woody growth and after they were taken out the alfalfa grew rapidly, and produced a fine stemmed hay. A year ago his first crop averaged 1¼ tons after pasturing, the second cutting was ¾ ton, and the third cutting ⅛ ton of hay. This light yield he attributes to the dry season since his average for ten years has been over three tons per acre.

That fall the alfalfa made about a ten-inch growth. Late in November he turned in his flock of sheep and left them there until February. They ate the alfalfa close to the ground and even into the ground. In spite of the severe winter, and the fact that he had common alfalfa, his stand did not winterkill. His farm is in the southeastern corner of Iowa and the winters are not severe, as a rule. He has tried pasturing his fall growth with sheep for the past four years and, in spite of general opinion, has not lost or injured his alfalfa.

Pasturing will encourage blue grass to come in, says Mr. Hazen. So far he has not been troubled enough to require cultivating. At first his hogs started to root up the patch but he rung all of them and stopped this trouble.

There are few farmers growing alfalfa in his neighborhod. A number tried it but did not lime and the result was no stand. Mr. Hazen has only failed to get a good stand once. About ten years ago he tried growing it without applying lime. It did not work. Since then he has always limed although he has to have the lime shipped in.

He believes alfalfa is a better paying crop than corn, acre for acre. It can not be beat for pasture and hay for any class of live stock. It does take work to get a field started and to harvest the crops but it pays and pays well in his estimation.

He is an advocate of sowing in the spring with a nurse crop. Heretofore he has always used rye and wheat for nurse crops. This year he sowed 26 acres with Grimm alfalfa and used both early oats and wheat for the nurse crops.

His cattle have never given him any trouble to speak of by bloating while on alfalfa pasture. Even when the alfalfa was wet they did not bloat. He always fed silage to them but they did not eat much. A few calves bloated slightly at one time but not enough to require any attention.

In the spring Mr. Hazen topdressed his alfalfa field with manure. He believes this is a good practice to follow. Since he has a large number of cattle on the farm all the time he aims to put back as much of the crop on the fields as possible in the form of manure.

Iowa. A. M. WETTACH.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D HOARD

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EDITORS
A. J. GLOVER, P. C. BURCHARD

General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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Junior Editor - - RUSSELL E. FROST

Corresponding Editorial Staff:
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DR. E. V. MCCOLLUM Johns Hopkins University
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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

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Coming Events

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Dec. 10-16—Pacific Slope Dairy Show, Oakland, Calif.

Carlson Holstein Sale

The dispersion of the Enoch Carlson Holstein herd, Oct. 31, at Roberts, Wis., attracted buyers from four states who took the 35 head for $4,620 with $300 for the top cow purchased by the St. Croix, (Wis.) County Asylum. Reppert and Hansen did the selling with Everson in the box.

A visitor said to a little girl, "And what will you do, my dear, when you are as big as your mother?"

"Diet," said the modern child.—Tit-Bits.

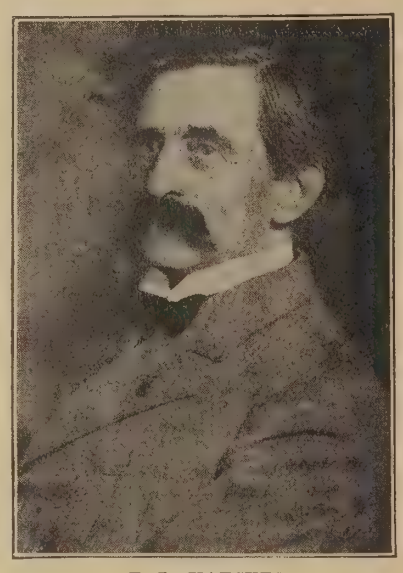
Tom Tarheel says the reason he is checking up the results of his farm work this year is because he doesn't like to travel in the dark.

Buttermakers Honor T. L. Haecker

The National Creamery Buttermakers' Association of recent years has adopted the practice of giving formal recognition of distinguished service in the dairy industry to some outstanding individual who has withdrawn from active work.

At the annual convention of the association this year held at Mason City, Ia., Nov. 11, 12, 13, it was the pleasure of President H. C. Larson to present a gold medal suitably engraved to T. L. Haecker, of Minnesota, in recognition of distinguished service.

It is interesting to note that back beginning in 1874, when Mr. Haecker was operating a Jersey and Guernsey farm in Dane County, Wisconsin, he



T. L. HAECKER

became associated with W. D. Hoard while the latter was governor of Wisconsin, serving as executive clerk.

In presenting the medal, Mr. Larson gave a brief review of the contribution that Mr. Haecker has made to the dairy industry. "He is known today as the father of dairying in Minnesota," said Mr. Larson.

In closing, Mr. Larson quoted the following verse which seemed to him to perfectly express this great man's determination from the beginning and all through his life:

"To keep my health, to do my work, to live,
To see to it that I grow and gain and give;
To wait in weakness and walk in power,
But always forcing onward to the light,
Always, always facing toward the right.
Robbed, starved, defeated, fallen wide astray,
On with what strength I have—on in the way."

National Buttermakers Meet

In opening the annual convention of the National Creamery Buttermakers' Association held November 11, 12, 13 at Mason City, Iowa, President H. C. Larson placed before the members in attendance some of the more important problems that should have their attention. In addition to this he also spoke of some of the good things the association had accomplished.

The problems for consideration were as follows: 1, should the association continue membership in the American Dairy Federation; 2, should the association consent to the changes in standards for ice cream as asked for by the National Association of Ice Cream Manufacturers; 3, should the association board of directors be empowered to cast a referendum vote when necessary and more particularly when asked by the American Dairy Federation; 4, should the association change the time of annual convention from fall to spring season; 5, should the preparation of the history of the association be authorized; 6, should we make such changes in finance as will enable the association to employ a full time secretary; 7, we should discuss ways and means of improving the conditions for the individual members of our association as well as those of the farmers.

Mr. Larson called attention to the support that the association gave towards the establishing of the U. S. Dairy Bureau. He spoke of the co-operation given to the National Dairy Exposition in the way of contests and exhibits of products and laid special emphasis on the cream grading contest conducted this year. The cold storage butter contests have done much to lead the way for better quality and production methods.

North Carolina Jersey Record

J. F. Diggs of North Carolina is the owner of Pioneer's Country Lassie, a 7-year-old Jersey cow that has completed a splendid 365-day test. In one year Lassie yielded 747.52 lbs. fat and 11,986 lbs. milk, and for ten months of this time she produced well in excess of 50 lbs. of fat per month.—American Jersey Cattle Club.

An Ideal Dairy Farm

To be Sold At Public Auction, Dec. 18

This sale is being made because other interests require the owner's continual absence from home, and it affords an opportunity to secure a highly productive and a well equipped stock or dairy farm in the very heart of a section that offers as many advantages to a real farmer as any section in this country. The farm contains 320 acres and is located a mile and a half southeast of HURON, S. D., a prosperous and rapidly growing city of 12,000 population.

The farm is in a high state of cultivation, having been maintained for years as a stock farm, and it produces annually large crops of corn, oats, and barley. Fifty acres are on the Jim River bottom and are in alfalfa which produces yearly three and four crops. Corn on this farm made 70 bus. per acre in 1922, and 75 bus. in 1923. Oats yielded 75 bus. and 55 bus. per acre the same years, and in 1924 oats made 50 bus. and barley 45. The soil is medium loam, underlaid with clay, and is easily worked.

BUILDINGS: The buildings are nearly new and include a six-room house with full cement basement and large screened in porch; one barn 64 by 96, with 11 box stalls and stanchions for 30 cows, single stalls for 6 horses, grain bins and large storage room for hay; one barn, 40 by 50, arranged for cattle and sheep; corn crib and granary combined with cement driveway; hog house, 16 by 30; hen house, 12 by 30, and a machinery, tool house and garage combined, 24 by 55. A large grove, mostly ash, north and west of the buildings adds beauty to the surroundings. The fields and numerous yards are fenced with hog tight fencing, and soft water from an artesian well is piped to buildings and yards and then empties into a large cement tank which has never frozen over.

Huron offers a ready and stable market for all form of dairy products. A new packing plant has been completed two miles from farm, and Swift & Company are erecting a large plant for handling poultry and dairy products. The Huron public school system is one of the best in the Northwest, and Huron College has a high standard, its graduates being admitted to the large universities. This sale presents an opportunity to acquire an ideal home and a profitable business for less than one-half the investment that would be required for a similar acreage in the older settled sections of the country. For further information and terms address.

D. E. McMONIES, Owner **HURON, S. D.**

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Just mail the coupon below. We send one bowl prepaid for you to use. Return it if you care to—or order for your barn.

Operates on any pressure up to 100 lbs. Valve cannot stick and flood. Shallow bowl permits normal drinking position.

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The Simplex is not new—not an experiment. Tens of thousands have been sold. Many of the biggest dairy cattle breeders in the country use them. Men like E. C. Schroeder, of Moorehead, Minnesota, say, "The Simplex is the best bowl we have ever seen." But we don't ask you to take the word of others, however authoritative it may be. Once you have this sample in use, where you can watch it, you need no recommendations from anyone to sell you. The Simplex sells itself.

Whatever your attitude for or against other water systems, we urge you to accept this offer. Get this sample. Watch the bowl to your entire satisfaction. Then do as you please about buying. No fairer offer could be made. Mail coupon.

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You may send me a sample Simplex Automatic Water Bowl, free and prepaid. It is understood that I will try this bowl for 30 days without any obligation to buy. After trial, I will either return the bowl to you or remit its price of $3.50—or order for my barn.

Name..... *Post Office*.....

R. F. D......*Number of Cows kept*.....*Own Farm*.....*Rent Farm*.....

Trenton Guernsey Sale Breaks All Records

47 Head Average $2,856

A new and exceptional price record for a public sale of Guernseys was established at Trenton, N. J., on November 14th. Forty-seven registered Guernseys consigned by W. W. Marsh of Iowa, D. D. Tenney of Minnesota, F. J. Reuping of Wisconsin, and Myron A. Wick of Ohio were sold for $134,245, an average of $2,856, just $118 higher than the previous high mark established years ago by the dispersion of the herd owned by the late F. Lathrop Ames. Another record that went up Nov. 14 was the high price for a Guernsey cow. Shuttlewick Levity, a show heifer and a class leader, daughter of Langwater Levity, consigned by Mr. Wick, was purchased by J. O. Winston of New York for his Saugerties Farm herd at $22,000.

It is interesting to note that in Mr. Wick's consignment were seven animals of one family that brought exceptional prices. Langwater Levity purchased of F. Lathrop Ames for $6,000, now a 10-year-old cow, brought $15,000. Her daughter, Shuttlewick Levity, mentioned above, sold for $22,000. Three other daughters increased the total by $24,100, one granddaughter added $11,100 more, and a second another $1,700, making a grand total of $73,900 for the seven members of the family, an exceptional figure, indeed.

The highest priced bull of the sale, Cherub of the Prairie, was a Marsh consignment. He was first as a calf at the 1923 National and after spirited bidding was struck off for $10,000 to H. L. Tinkham of Massachusetts.

Altogether 22 animals sold for $1,000 each or more and but 12 for less than $500 each. Most of the entries were purchased by eastern breeders and quite probably many of them will be seen at the 1925 shows.

Charles L. Hill, Wisconsin, managed the sale.

The following list includes those animals selling for $1,000 or more and names of buyers:

John E. McLoughlin, New York	
Itchen King	$2,100
Oscar Whittemore, Massachusetts	
Saugerties Ultra Monarch	$1,350
Mixter Farm, Massachusetts	
Cherub's Contender of Shorewood	$2,500
H. F. Andrus, New York	
Langwater Levity	$15,000
Shuttlewick Mirth	11,100
Shuttlewick Rosebud	1,700
Day Dream of the Prairie	2,300
Corium Elizabeth Dolores	1,075
J. O. Winston, New York	
Shuttlewick Levity	$22,000
John Ames, Massachusetts	
Shuttlewick Queen of Joy	$8,100
Wm. H. Williams, New York	
Shuttlewick Happy Girl	$6,000
Diamond of Maple Hill	4,600
Emmadine Farm, New York	
Shuttlewick Laughter	$15,000
Honey Bloom of the Prairie	5,600
Peach Bloom of the Prairie	5,000
Coumsett Farm, New York	
Honeydew of the Prairie	$4,000
Marsh Marigold of the Prairie	4,000
Sweet May Rose of the Prairie	1,000
F. J. Reuping, Wisconsin	
Lilac of the Prairie	$1,000
H. L. Tinkham, Massachusetts	
Cherub of the Prairie	$10,000
R. R. Carpenter, Delaware	
Bopeep's Rose Des Houards	$1,000
A. Stanley Bell, Maryland	
Floridale Merry Maid	$1,725

FORWARD WISCONSIN
FARM FACTORY COMMERCE

A Program for Wisconsin Prosperity



Factory—The factory creates for the Wisconsin farmer the finest of all markets—the *Home Market*—right at his door.



Farm—The foundation of our state's well-being. "Every farm is a factory".



Home—Where all prosperity and well-being bear fruit. Wisconsin might well be called The State of Happy Homes.

• • •

"Doctor, Lawyer, Merchant, Chief," all owe their livelihood to *production*, their prosperity and opportunity to Farm and Factory.

BELIEVING that the prosperity of Wisconsin depends upon the combined efforts of the producers of farm and factory—

Believing that the future holds even greater prosperity, provided our producers are not held back with unfair laws, high costs, and higher taxes than are collected in other states—

Believing that the world is the market for the products of Wisconsin factories and for the surplus from the farms; that sales in other states make better markets at home; that factories in Wisconsin bring money into the state, while factories in other states take money out—

Believing that if we are to have the best opportunities in Wisconsin for our citizens on the farms and in the factories, in business, in the professions, and for our children, we must work together for a broad, sane and progressive program—

Believing that our permanent prosperity depends entirely upon straight thinking today, this Association has decided to place before the citizens of the state some vital facts that concern our future.

There will be a series of straightforward messages. Watch for them, study them, and help build a permanent prosperity for Wisconsin.

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MADISON, WISCONSIN

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W. H. ALFORD, Vice-President Nash Motors Co., Kenosha
OTTO H. FALK, President Allis-Chalmers Mfg. Co., Milwaukee
F. H. CLAUSEN, President Van Brunt Mfg. Co., Horicon
GEORGE F. KULL, Secretary Wisconsin Mfrs. Ass'n., Madison

FARM AND FACTORY MUST PROSPER TOGETHER

"The improved acre must yield not only corn but civilization, not only potatoes but culture, not only wheat but effective manhood."—KENYON L. BUTTERFIELD.

Says Sam: Prejudice is the weed that halts the growth of reason.



LEFT TO RIGHT—W. W. MARSH, CHAS. L. HILL, MYRON A. WICK, D. D. TENNEY AT THE GUERNSEY SALE, TRENTON, N. J., NOV. 14, 1924

Messrs. Marsh, Wick, and Tenney and F. J. Reuping of Wisconsin were the consignors to the sale which was under the management of Mr. Hill.



SHUTTLEWICK LEVITY, SOLD AT AUCTION FOR $22,000 BY MYRON A. WICK, OHIO, TO J. O. WINSTON, NEW YORK

Standing back of cow, P. J. Kelly (with cap) and M. A. Wick, seller of cow.



The Dairy Farm Home

LUCY THOMPSON

Did You Record His Birth

During the war we all learned the value of birth records though most of us who were old enough to take any part were born before the recording of births was thought of widely and seriously.

In 31 of our states and in the District of Columbia the law now requires that the baby's birth be reported promptly by the doctor, nurse, mid-wife, or whatever person attended the delivery. This report is passed on to the local health officer who in turn sends it to the state board of health.

It is possible for you to register your child's birth even in the states where this law is not in force. Just write in to the board of health at your state capitol and they will send you the proper blanks.

It may seem rather needless now but your foresight may save your child much inconvenience and possibly danger later. The Department of Labor at Washington gives these reasons why every birth should be on record:

To prove
1. Age and citizenship.
2. Right to go to school.
3. Legal right to go to work.
4. Right to an inheritance.
5. Right to marry.
6. Right to hold office.
7. Right to secure passports for travel.

Enough Outlets

Be sure, if you are installing an electric lighting system, that you do not economize too much on outlets. To a person used to oil lamps, any sort of automatic lighting seems a godsend even if it is somewhat limited in its use and when it is being put in we are not apt to consider how our demands may expand.

The expense of a few more outlets is small compared with the time and labor they save. You may have a fine vacuum cleaner but if it is hard to make the attachment you will find yourself bending to the old time broom methods more than once.

Strong, direct, overhead lighting is becoming a back number. Where there are several people sitting in a room the natural location of them is a sort of circle, always under the central light. They face all evening toward a glare which is not only hard on the eyes but brings out all the defects of a person or room. The elimination of this glare is one of the best things discovered lately about lighting.

Where a center light is used it should be softened by having an indirect fixture. In a living room there is no need for a center light at all though many prefer them. In the dining room it is different. The living room may be lighted by a couple of wall brackets at either end of the fireplace and if it has one floor plug at the opposite side of the room no more is required as far as lighting is concerned as the floor plug may have a two-way socket attached which will connect both a floor lamp and a table light. A soft light is a thing of beauty of itself and is a great beautifier of plain folks and plain furniture alike.

Every electrically equipped bedroom should have a floor socket placed so that a light may be over the bed. Reading in bed is said to be bad for the eyes but if people will do it anyway they might as well have conditions made as harmless as possible for them.

The kitchen is the only room in the house, to my notion, that justifies a strong overhead light. If the room is not too large this will be sufficient for working in all parts of it.

Extra plugs should be in the room used for laundry for even if you haven't them now you will eventually get an electric washer and maybe ironer, if crops and prices are good. Plugs for these should not be as near the floor as in other rooms as they are less convenient low and may be flooded with water.

In these days of outdoor living don't neglect at least one outlet on the porch in addition to the one in the ceiling used for lighting. It is handy for cleaning and helps a lot when you want to eat your summer meals outside.

Covering the Flowers

In many parts of the country we are having a long and lovely fall; the weather seems to be trying to make up for its treatment during the summer.

If you have flowers such as the sturdy chrysanthemums that are growing in sheltered nooks, you can keep them for weeks yet by watching the weather and covering them carefully when the cold snaps come. In summer we are lavish with the flowers but later on we grow conservative and are glad for just a tiny touch of color to put on the table to cheer up the meals.

When there is no longer any chance of keeping the flowers you can often have the greens, such as honeysuckle vines, clear up to Christmas.

Making the Lunch Hot

If you have the hot lunch system in your school you may have found that the work of getting things ready at noon was most too great for pleasure on the part of either teacher or pupils.

Here is an idea that is not original with me but is so good that I would like to pass it on. Of course there is an oil stove in the school house. Now either get a cheap new boiler or else mend an old one and make either a single rack or a double-decker, according to the number of pupils, to fit the bottom of the boiler.

Let the children take the hot part of their lunch to school in tightly closed pint jars and set them right into the boiler which can be filled at recess with enough water to cover the jars. At 11 o'clock a pupil can light the stove and by 12 everything will be piping hot.

There are any number of things that can be sent to school this way but probably the best are cocoa and soups. There are so many arguments in favor of the hot lunch and it has been shown again and again that children thrive on it better than on the old system. Where there are simply no conveniences, however, it is apt to degenerate into rather a messy affair but with the boiler and rack method each child can look out for his own things as there need be no central cooking dishes.

Uses of Kerosene

Kerosene has many uses around a house aside from burning it in the lamps. At home we used to have a large kitchen clock and when it got a notion that it didn't want to go any longer we used to give its works a good going over—not taking them apart—with a stiff chicken feather dipped in coal oil. We used the same method with the sewing machine. It has a tendency to gum, especially if you are not very particular to use a high grade of oil. Kerosene cuts away this gum.

One of its best uses in any home that has plumbing is for cleaning the enameled ware. It cuts the greasy dirt out of wash bowls and bath tubs like magic. The scouring powders are good but kerosene is easier to use and never scratches the surface.

Apples on a Stick

When days are bad it often happens that children are the same. Have you ever tried making apples on sticks for them? There is so little candy about them that they are not injurious and the children can help in the making of them.

Boil a cup of sugar with a quarter cup of water until it makes a hard ball in cold water. Run stout sticks in at the stems of apples and coat them with the syrup. An adult might not consider this much of a delicacy but it is wonderful to children who always are wanting candy. I wonder why it is that they never beg for spinach, carrots, and the other wholesome things. Just another problem to sharpen the mother's wits, I suppose.

Chocolate Custard

Instead of making plain custard next time, you might like the addition of some chocolate. Custards are appetizing but do not have enough flavor to keep us from getting tired of them if we have them too often. They have such valuable food properties, however, that it is well worth while thinking of ways to vary them and still keep the family eating them.

For the chocolate custard melt one square, add a quart of milk, a pinch of salt, and a half cup of sugar. Scald this and add four beaten eggs. Bake in a moderate oven until a silver knife passed through it comes out clean.

Plain custards can also be varied by serving with a little jelly or fruit on top.

If Bobby isn't helping father, why shouldn't he, as well as Mary, dry those dishes?

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2228—The Button-Down-the-Front Coat Dress. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 4 yards of 36-inch material with 3¼ yards of braid.

No. 2189—Smart Model. Cut in sizes 16 years, 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 requires 3½ yards of 40-inch material with 6 yards of 1-inch braid.

No. 2051—One-Piece Apron. The accompanying diagram explains simple construction. Cut in sizes small, medium, and large. The medium size requires 2 yards of 36-inch material.

No. 2194—Beltless Coat Dress. Cut in sizes 16 years, 36, 38, 40, 42, 44, 46, and 48 inches bust measure. Size 36 requires 3⅝ yards of 40-inch material with 11¼ yards of braid.

No. 2236—Middy Dress for Girls. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2⅝ yards of 42-inch material with ⅛ yard 36-inch lining. The hot-iron transfer pattern No. 705 which comes in blue only, costs 15c extra.

No. 1862—Bloomers, in either of two lengths. Cut in sizes 16 years, 28, 32, and 36 inches waist measure. Size 28 requires 2¼ yards 36-inch material for the pantalets.

No. 1211—Boys' Top Coat. Cut in sizes 2, 4, 6, 8, 10, 12, and 14 years. Size 8 requires 1⅝ yards of 54-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

How about making mother's Christmas gift "plum foolish"? Maybe she sees useful things enough in her everyday life.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

The New York League and Mr. Lyon

HOARD'S DAIRYMAN:—On page 481 of your October 31st issue of the Dairyman, there appears an article, "New York Dairy Notes," by H. H. Lyon of New York.

The article is interesting to milk producers and readers of Hoard's Dairyman for many reasons. The writer tries to give the impression that the Dairymen's League, or "Poolers", as the present association is commonly called, is a success and at the same time gives the readers of Hoard's Dairyman the impression that this pool has the surplus to take care of from all producers. Mr. Lyon knows better and if he would show more willingness and credit dairymen with good judgment enough to know the difference between $1.70 per hundred and $2.30 or $2.40 per hundred, he would lose his argument. His reference to Sheffield's and a higher price must mean they are getting a better grade of milk and selling more in fluid form than the pool, hence the better price.

After more than five years of the work of the Dairymen's League Co-operative Ass'n and not paying their producers as high a price for milk as many reports that have been received for milk delivered at cheese factories, there is something more than surplus milk the trouble with the pool.

Mr. Lyon says that an announcement that has caused much comment is a recent decision respecting the enforcement of the League contract. He wishes to have the readers of the Hoard's Dairyman know that this decision does not settle the validity of the contract. I take it Mr. Lyon refers to the Holmes' case near his home. Such being the case, I would like to call his attention to the fact that one Mr. Gurnsey signed Holmes' name to the contract, claiming that Holmes authorized him to do so. Gurnsey must be a good fellow. Would he have shown the same willingness to milk the cows and deliver the milk at the station at Holmes' request that he did in signing the contract? I think not. Mr. Lyon might tell the readers of Hoard's Dairyman how many members there were in the Pooling Association on the 18th day of April, 1922, when the non-poolers met in Utica for the purpose of getting more information on the methods of disposing of their milk. Some reports give it that two days later the association tried to vote in all contract signers as members. Mr. Lyon closed with rather a caustic remark about the pooler reading his contract.

Let me ask Mr. Lyon three questions:

Did you ever read the contract? Where is there any consideration for the producer under the common laws of business that makes the contract valid? Article Eleven of the contract states that in the absence of fraud, the producers waive all right to accounting or instituting legal proceedings.

Members of the Dairymen's League and the public were given to understand by the officers of the League that by pooling, they would obtain better prices and it would be their association. Mr. Lyon admits that after the exposure of one fraud by the non-poolers and a wait of nearly three years, the association tried to plug the pool by voting the contract signers as members to something they were led to believe they were before they signed the contract.

The success to better conditions in the dairy business in New York State or elsewhere depends on the dairymen and their families themselves. After nearly fifty years in the harness in dairying and general farm work, I have come to one conclusion at least. And that is that the farmer is not only overloaded with organization but has become top heavy with forced co-operation. By that I simply mean the kind of co-operation put in operation by former officers of the Dairymen's League, Inc., when they undertook to make a monopoly of the milk business and to boss the producers and to relieve themselves of responsibility as shown by their contract. That they used strong methods to get contracts signed can not be denied. I have personal knowledge where henchmen and workers for the pool laid down their contract before a visitor at their meeting and ordered them to sign it. The third time he issued the order, he placed his finger on the line and demanded that he sign there. When the young man was taken to task for his insolence, he turned away to seek other victims. Gurnsey admitted signing the names of others to contracts and did not leave copies with the parties. Now the courts are asked to put their stamp of approval on this kind of co-operation, or forgery as some term it. If there is any section of farming country where this form of co-operation has not got a start, keep it down and out for I believe all the germs of distress are in these two words, Forced Co-operation.

New York. FRED M. JONES.

Slave Farmers Blamed

HOARD'S DAIRYMAN:—Having just read Mr. Jones of Maine on the Wing article, I would like to ask of Mr. Jones why he milks his cows three times a day when he has no one to change off with and why he goes to work at 4 a. m. If men of this stripe would cut their hours to more reasonable ones and use this part of their time for rest or recreation, they and all the rest of us would be much better off. I maintain that the farmers who are making of themselves such slaves as Mr. Jones describes himself to be are the farmers who are most to blame for the low prices the farmers receive, in that they are most responsible for the overproduction and surplus of all farm products. His "think it over" is a boomerang that hits the bull's eye nicely.

New York. J. B. CRESWELL.

Clover Should Live

HOARD'S DAIRYMAN:—I like your editorial "Bring Back Clover". It can be done beyond any doubt and red clover is too valuable to be condemned to death by scientific (?) superstitions. The younger agronomists are waking up and beginning to see things that were before invisible because they had been blinded in the class room by wild guesses and false theories fed to them as great truths that must be held sacred. Your editorial marks a long step forward in American agriculture. The iconoclast has often worked terrible destruction but he has his uses.

Florida. CHAS. F. LEACH.



Saving mother's eyes

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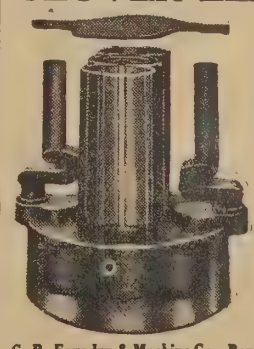
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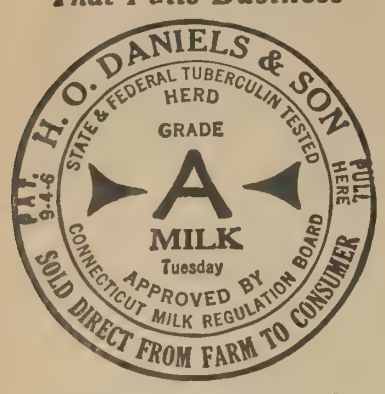
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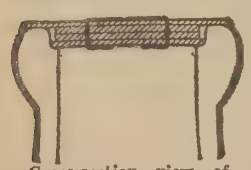
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DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were firm and active during week ending Nov. 15. Decreasing production was an important influence; active buying also supporting situation. Storage holdings on November 1 were reported as 67,651,000 lbs., a surplus of 9,724,00 lbs. over last year. This is not a cause of concern.

The average wholesale prices on American cheese, style Twins, for the week ending Nov. 15, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Nov. 15 1924	Nov. 8 1924	Nov. 15 1923
	Cts.	Cts.	Cts.
New York	21.0	20.5	25.2
Chicago	19.1	18.8	23.3
Boston	21.5	21.5	26.5
San Francisco	19.8	19.2	26.0
Wisconsin Boards	18.7	18.1	23.8

The receipts of cheese at these markets were 3,612,631 lbs. for the week as compared with 3,410,913 lbs. last week and 3,653,324 lbs. a year ago.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on November 1, figures being given in thousands of pounds (000 omitted):

	Nov. 1 5-yr.-ave.	Nov. 1 1923	Nov. 1 1924
Butter, creamery	86,113	76,472	135,251
Cheese, American	52,641	57,927	67,651
Cheese, Swiss	4,996	6,094	10,648
Cheese, Brick	1,567	2,535	1,688
Cheese, Limburger	1,063	1,264	1,220
Cheese, all other	8,673	6,482	6,601

These holdings include stocks in both cold storage warehouses and packing house plants.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were firm and active during the week ending November 15. Fancy grades were especially scarce, resulting in greater interest and more activity in best quality storage butter. Foreign markets were weaker. Monthly storage report released during week revealed total holdings on November 1 of 135,251,000 lbs. as compared with 76,472,000 lbs. last year and a 5-year average of 86,113,000 lbs.

The average wholesale prices on 92-score butter for the week ending Nov. 15, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Nov. 15 1924	Nov. 8 1924	Nov. 15 1923
	Cts.	Cts.	Cts.
New York	41.2	40.5	53.1
Chicago	39.0	38.5	51.5
Philadelphia	41.6	40.7	53.5
Boston	39.5	39.0	51.5
San Francisco	38.5	37.9	48.6

The receipts of butter at these markets were 8,579,391 lbs. for the week as compared with 9,354,201 lbs. for last week and 9,488,847 lbs. a year ago.

CHICAGO, Nov. 20—Butter was in good demand with prices here unchanged to ½c higher. Offerings were not large and readily taken. New York was firm and Philadelphia unchanged to ½c higher.

Cheese markets generally unchanged.

Fresh eggs sold at unchanged prices. Receipts were 2,746 cases. Sales at 225 cars refrigerator standards for December delivery were made at 36¼@37c.

FOND DU LAC, Wis., Nov. 17—Average cheese prices (majority of sales), f. o. b. shipping point: Flats, 19¼c; Twins, 18¾c; single Daisies, 19½c; double Daisies, 19¼c; Longhorns, 19¾c; square prints, 21c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Nov. 15—Single Daisies, 18¼c. On Farmers' Call Board Nov. 14—Singe Daisies, 18½c; Longhorns, 18½c; square prints, 19¼c.

NEW YORK, Nov. 19—Butter—Firmer; receipts, 10,968 tubs; fresh supply, 56,474 tubs; creamery extras, 44c; specials, 44½@45c.

Eggs—Firm; receipts, 5,968 cases; fresh supply, 80,792 cases; white, fancy, 81@84c; fresh firsts, 50@65c.

National Dairy Union Meeting

At the annual meeting of the National Dairy Union held at Mason City, Iowa, during the annual convention of the National Association of Creamery Buttermakers, N. P. Hull of Lansing, Mich., was re-elected president and A. M. Loomis of Washington, D. C., secretary, I. R. Morley of Owatonna, Minn., vice-president, and George Caven of Chicago, treasurer. The other directors are Samuel Schlosser, of Indiana, re-elected, and G. R. Kingsley of Iowa elected in place of C. V. Huenke of Ohio, whose term had expired.

The report of the treasurer showed about $3,500 cash balance and receipts of slightly more than the expenditures for the year. The report of the secretary covered the legislative activities of the year including work for the Bureau of Dairying, Butter Standards Act, co-operation with Internal Revenue Bureau in oleomargarine law enforcement work with Tariff Commission to uphold tariff rates on vegetable oils, etc. The secretary's salary was reported at $1500 a year and all his office and other expenses of the Washington office at $3,034.45.

The National Dairy Union began on Oct. 1, 1924, its 22nd year of active service for the interests of the dairy industry and the suppression of false and fraudulent methods of manufacture and sale of imitation dairy products. Going back in its history to the foundation laid by Ex-governor Hoard and his co-workers for the industry it is still finding plenty to do to carry on the never ending fight against fraud, imitation, and substitution. Its support comes from voluntary memberships which are solicited wherever dairy products are produced. A. M. LOOMIS, Sec'y.

Carload Prices of Hay, Straw, and Feed, Nov. 15, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26 50	27.00	....	21.00	21.25	25.50	26.00	23 00	19.50	23.00	17.50	24.00	....	16.00	
No. 1 Clover, mixed	20.00	....	....	....	17.75	....	....	....	17 00	....	15.50	....	....	15 00	....
No. 1 Clover	....	....	....	19.00	....	....	....	....	19.00	17.00	....	20 50	....	15 50	....
No. 1 Alfalfa	....	30 50	....	....		34 00	30.00	27 00	27.00	23.00	22.00	26.00	17.00	22 00	26.00
Standard Alfalfa		25.50	....	....		30.00	28.00	25.50	....	15.00	19.00	21.50	15.50	19 00	25.00
No. 2 Alfalfa	....	23.50	....	....	....	28.00	26.00	22.00	24 00	12.00	14 50	18.50	13 50	16 50	....
Oat Straw	13.00	16.00	14.00	12.50	13.50	....	....	....	10.00	9.00	8.00	....	7.50	....	....
Feed—Bagged															
Wheat Bran	....														
Spring	33 00	....	32 50	31 50	31.00	33.50	....	....	30.00	28.25	26.00	....	....	....	....
Soft Winter	34.25	....	34 50	32 50	33.00	34.00	....	29.50	30 50	....	....	27.00	....	25.50	37.00
Hard Winter	34.25	....	34.00	32.00	....	33.50	....	29 00	30.00	....	....	26.75	24.75	25.50	....
Wheat Middlings	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Spring (Standard)	34.50	....	34 00	34.00	33.00	40.00	....	....	34 00	31.50	28.50	....	....	....	....
Soft Winter	....	....	41.00	39 00	33.00	....	....	....	36 50	....	....	34.50	....	32.00	46 00
Hard Winter	....	....	....	39.00	....	38.00	....	....	36.50	....	....	33.00	31.75	32 00	....
Wheat Millrun	36.25	....	36.50	....	....	37 00	....	....	....	....	29 00	....	....	28.00	36.00
Rye Middlings	....	....	....	32 50	....	....	....	....	....	....	26 50	....	....	....	....
High Protein Meals															
Linseed	52 00		51.25	49 50	....	....			48 50	47 00	44 50	48.50	49.50	49.50	48.00
Cottonseed (41%)	48.25	....	47.00	46 25	....	....	....	39.50	43 50	44 50	45.00	42.00	....	....	....
Cottonseed (36%)	45.50	....	45.00	44.25	....	36.00	....	36.75	41.50	42.00	43 00	39.00	....	....	....
Tankage (60%)	....	....	....	....	....	....	....	....	....	60.00	60.00	60 00	60 00	60.00	....
No. 1 Alfalfa Meal	....	....	....	....	32 00	....	....	27.50	29.00	26 50	....	25 00	25.00	23.00	30.00
Gluten feed	45.95	....	44 90	42.70	44 50	....	....	....	41.70	38 80	42.00	....	....	....	....
Hominy feed (white)	45.50	....	45 50	....	42.00	47 00	....	....	42 00	40 00	....	37.50	39 00	....	....
Hominy feed (y'llow)	44.25	....	43.75	....	41.00	47.00	....	....	42.00	39 50	37 50	....	39.00	....	51.00
Ground barley	....	....	....	....	....	....	....	....	41.50	....	41 00	....	....	....	....
Dried Beet pulp	....	....	....	34.75	38.00	....	....	....	....	....	32.00	....	....	....	37.00

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A silo is a permanent improvement—bought once in a lifetime. Buy the best, and buy it from a substantial manufacturer who makes good his every promise—because he **can**, and **will**. When you buy an Independent Silo, you not only buy a product of high quality, but also a **service** and **security** that is your positive protection. 40,000 satisfied Independent Silo users recommend them. "Ask the man who owns one."

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D. R. SPERRY & CO., Box 13 Batavia, Ill.

When writing advertisers please mention Hoard's Dairyman.

Pacific International Live Stock Exposition

(Continued from page 605)

Boy, was junior champion. Gem's Best, a junior heifer calf dropped in February, was the junior champion female. Nellie B. Cook, a big, roomy individual, was senior and grand champion female.

Judge—A. C. Oosterhuis, Wisconsin

Exhibitors: A. Grossen, Joe Schumacher, T. Brugger & Son, John Boeckli, Anna Marie Boeckli, Oregon.

The awards are as follows:

Bull 4 years old or over—1, Brugger & Son on Jessie's Lot; 2, Boeckli on Sunny Hill Bob. Bull 2 years old and under 3—1, Grossen on Tassa M's Beauty. Junior yearling bull—1, Brugger & Son on Admiral A. Senior bull calf—1, Boeckli on Bachtel. Junior bull calf—1, Brugger & Son on Gresham Boy.

Cow 5 years or over—1, Grossen on Nellie B. Cook; 2, Boeckli on Emme; 3, Brugger & Son on Brown Rosaline. Cow 4 years old or over—1, Brugger & Son on Lucille; 2 and 3, Boeckli on Rhone and Rhein. Cow 3 years old under 4—1, Grossen on Daisy Alice; 2, Brugger & Son on Bella T. Cow 2 years old under 3—1 and 2, Boeckli on Saanen and Kander. Senior yearling heifer—1, Brugger & Son on Lillian Glen. Junior yearling heifer—1, Boeckli on Delia H; 2, Brugger & Son on Lucille 2nd. Senior heifer calf—1 and 2, Brugger & Son on Winter Rose and Hulda Telle. Junior heifer calf—1 and 2, Brugger & Son on Gem's Best and Lilly 2nd; 3, Boeckli on Sunny Hill Dairy Maid.

Cow having official yearly record begun at 5 years or over—1, Grossen on Nellie B. Cook; 2 and 3, Boeckli on Aare and Limmat. Cow having official yearly record begun under 5 years of age—1, Boeckli on Rhone; 2, Boeckli on Saanen. Get of sire—1, Brugger & Son; 2, Boeckli. Produce of cow—1, Brugger & Son; 2 and 3, Boeckli. Young herd and calf herd—1, Brugger & Son. Dairy herd—1, Brugger & Son; 2, Boeckli.

Senior and grand champion bull—1, Jessie's Lot. Junior champion bull—Gresham Boy. Senior and grand champion female—Nellie B. Cook. Junior champion female—Gem's Best.

Boys' and Girls' Dairy Exhibits

There was a one hundred per cent increase in dairy stock entered by boys' and girls' club members in competition for awards totaling $1,000 in prize money. Each exhibitor in these classes is required to be regularly enrolled with his state club leader and shall be between the ages of nine and eighteen years. Exhibitors may make but one entry in any one class. A feature of this department is the series of showmanship contests taking place among exhibitors of Jerseys, Holsteins, and Guernseys.

Some remarkably good young stock was exhibited by the boys and girls. A few of the entries would have stood fair chances in the open classes but at this show entering in both club and open classes is not permitted and every effort by the young people is directed toward increasing the value of the junior show.

Twenty-five young people entered Jerseys. The best class was the senior calf class, with nine entries, in which competition was keen. Orval R. Loe, Oregon, took first in this class with a splendid bull calf, Chieftan's Little Lou; second and third place winners were Alvin G. Tillman, and Viola Tau, Oregon. Rudolph Hanson and Kenneth Kesterson, Oregon, showed mature cows which they had raised, the former lad showing Oxford Lassie of Lawn Vista, slightly out pointed his competitor's entry, Poppy of Sunnyfields. The junior calf award went to a nice St. Mawe's heifer owned by Kenneth Kesterson. The $25 showmanship prize went to Edith Pugh, Oregon. Herbert Kanne, Oregon, was second.

Twenty-six club members exhibited Holsteins. In this competition the senior calf class was also the strongest, with the junior calf class pressing closely. Winners in these classes were: John H. Fleming, Oregon, on King Segis Matador Abbekerk and Carroll Madsen, Oregon, on Mercedes Von Holmgen De Kol. The showmanship contest here was won by Lawrence Aylsworth, Oregon, with John Fleming second. The Hollywood Farm prize of a Holstein heifer calf made to that club member scoring highest on the basis of quality of calf, herdsmanship, showmanship, and record book was won by Marvin Daniel, Oregon.

Guernseys were shown by twelve young people. Most of the entries were in the calf classes where the outstanding individual was Glen Hilda May of Greenacres, exhibited by Karl Zweiful, Oregon. Edwin Ridder, Oregon, won the Guernsey showmanship contest. Karl Zweiful was second.

For the first time there were club entries of Brown Swiss. Five exhibitors composing the membership of a single club in Multnomah County, Oregon, exhibited their charges.

A Promise to Dairymen

The quality of Larro will never be lowered so long as Larro is made. Regardless of what changes take place in the price of ingredients, Larro will always remain the same.

LONG ago we decided upon this policy, and wrote this pledge into our manufacturing creed.

There were two reasons for this decision—we knew it to be correct, both in theory and practice, and we knew we could keep the promise.

Years of experiment and practical feeding have proved that a dairy feed must be more than just "a good feed." It must also be absolutely uniform and its formula must not be changed.

Sudden changes in feed—putting in more of this, or less of that, the substitution of poorer ingredients, imperfect blending or mixing—result in lower milk yield and smaller profits for the farmer.

Your cows do not eat a printed formula. They are not concerned with price changes. Whether the market is high or low, they need a feed that will build condition and keep milk flow at its peak.

The Larrowe Milling Company is able to keep its promise of uniformity and unchanging formula because it has the experience and equipment to manufacture a feed that never varies. It has a formula that can be depended upon to produce milk profitably. This formula will never be changed unless the Larro Research Farm proves that a better one has been found.

LARRO is *more* than a *good* feed; it is always the *same* feed.

We repeat that we shall continue to manufacture LARRO on this basis—the basis of more profit to those who buy it.

THE LARROWE MILLING COMPANY
DETROIT, MICHIGAN

Larro

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THE SAFE RATION FOR DAIRY COWS

MR. FARMER How About That Corn Still to Husk ?

Buy an OHIO SHOCK HUSKER and quit your worry



It husks from the shock, hooks behind the wagon, saves the fodder; use in either wet or dry weather, keeps you warm in cold feeding it; remove engine and use for other farm power work. Don't delay but write today for our farmer dealer proposition.

THE OHIO HUSKER CO., Doylestown, Ohio

Milk Record Sheets

For years Hoard's Dairyman has been preaching the necessity of keeping records of the production of each cow. Only by knowing how much milk each cow actually gives is the dairy farmer able to improve his herd. Our Book Department has various sizes of milk record sheets to make it easy to keep tab on your cows. Complete samples with price list will be sent for 5 cents in stamps. Address Hoard's Dairyman, Fort Atkinson, Wis.

The sting of a reproach is the truth of it.—Proverbs of England.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Boys' and Girls' Fairs Help Build Communities

Fall time is fair time. Why not? After a hard summer's work, what better way is there to "finish off" than to exhibit at a fair or round-up? What better way is there to promote neighborly spirit and build the community? There are thousands of communities that could benefit by this sort of a program. Hundreds of communities do. Many have just as good or better fairs than those reported, but here are three types of round-ups, built around the work of boys and girls. May your community be



Jimmie Perry, 12-year-old winner at Waterloo. One pie pumpkin weighs 45 lbs. and the other 50 lbs.

one of those to benefit by a get-together.

Fort Atkinson and Waterloo are two neighboring communities in Wisconsin. Both have a Smith-Hughes agricultural teacher in the high school. Both communities held a two days' fair this fall. Both communities believe in co-operation.

Waterloo held its community fair first. This offered a good opportunity for Fort Atkinson boys to visit Waterloo's third annual fair and get some ideas. N. O. Eckley, agricultural teacher, and Miss Natalie Leonardson, home economics teacher, directed the fair. It was supported by town and country alike and was held for two days in tents right in the down-town district. Banks and business men contributed more than $200 in prize money. Hundreds of visitors passed through the demonstration and exhibit tents during the two days.

It is said that Mr. Eckley is the originator of the demonstration booth idea for high school fairs. In accordance with this plan, there were ten booths on one side of the tent to demonstrate the best agricultural practices and ten more on the other side of the tent to demonstrate the better practices in household management. In the agricultural department regular demonstrations were given by the boys on the following subjects: seed corn and its testing, rope work, milk testing, soil testing, culling poultry, feeding poultry, alfalfa the connecting link, grading and marketing eggs.



H. A. HOVDE

On their side of the tent the home economics girls demonstrated the proper method of serving meals, helpful hints in home decoration, better health, the "tie and dye" process, sewing methods, milk for health, the six best doctors.

One of the features given by the home economics students was the style show held in a down-town store window. In the "evolution of clothing" booth were displayed a variety of gowns from those designed and worn seventy-five years ago down to present day styles.

There were other competitive exhibits. The boys competed in grains, vegetables, fruit, and live stock including pigs, sheep, dairy and beef cattle. The poultry show with more than seventy-five entries was the largest ever held in connection with the Waterloo High School Fair. The girls showed baking, canning, candy, and sewing.

More than ninety boys and girls took part in the fair. Officials of the High School Fair Association were: Agriculture, Fred Kypke, president; Clarence Motl, vice-president; Russell Fox, secretary; Melvin Else, treasurer. Home economics, Gertrude Behl, president; Matilda Vartosch, vice-president; Jeanette Wendt, secretary-treasurer.

On the evening's program were talks by the Superintendent of



Directors of the Waterloo High School Fair, Miss Natalie Leonardson and N. O. Eckley.

Schools; L. F. Graber of the Wisconsin College of Agriculture; L. M. Sasman, state supervisor of Smith-Hughes agriculture; entertainment by local talent, and a poultry picking demonstration by Ernest Hausen of Fort Atkinson, the world's champion poultry picker, who equalled his world's record of four and three-quarters seconds at this exhibition.

Different, yet similar, was Fort Atkinson's High School Community Fair. There were more than 228 entries of vegetables, grain, and fruit from high school boys and girls, farm boys and and girls, and farmers in this community. Entries were open to everyone in the community. The first annual fair at the Ft. Atkinson High School was held in the high school gymnasium and supervised by H. A. Hovde, agricultural teacher. The project boys demonstrated testing milk, soil, grafting trees, culling poultry, and rope work.

A distinctive feature of the fair was the weed identification contest in which sixteen rural schools in the vicinity of Fort Atkinson participated. A team of three pupils represented each school and nearly sixty boys and girls actually took part in the contest. For several weeks previous to the fair, Mr. Hovde and his students made regular trips each week to the country schools and



Fort Atkinson High School "Ag" Club. These boys helped make their fair a success. Officers for the fair, front row, right to left, Howard Purdy, Vernon Loga, Herbert F. Wisch, Victor Stroebel.

taught the boys and girls to identify a large number of weeds. The contest allowed forty-five minutes for the identification of eighty-five different weeds. Delta McGoon identified eighty-three of the eighty-five weeds correctly. The winning school identified a total of 233 out of a possible 255. A handsome banner was presented to the winning school as a trophy and the highest individual was presented a beautiful gold pin.

Agricultural Club Fosters Fair

The evening's program was held in the auditorium of the high school where talks were given by A. J. Glover, editor of Hoard's Dairyman; E. M. Tiffany of the Wisconsin College of Agriculture; and J. M. Coyner, Jefferson County Agent. Musical numbers were given by a male quartette and the high school orchestra. The program was concluded by a chicken picking demonstration by Ernie Hausen, world's record poultry picker. The birds were auctioned off.

Great credit for the success of Fort Atkinson's first community fair should go to the High School "Ag" Club and every one of its members who worked hard on this event. Herbert F. Wisch is president of this club. The other officers are Vernon Loga, vice-president; Oscar Schultz, secretary-treasurer; Harlow Gsell, Victor Stroebel, and Howard Purdy, directors; H. A. Hovde, adviser.

In Wood County, Central Wisconsin, there are nearly 1,000 club members. One of their supervisors is A. N. Howalt, a "full time" Smith-Hughes man. He devotes his entire time to agricultural work among the juniors. Naturally with such a large number of young people interested in project work there should be a fall round-up. And such was held at the Wood County Agricultural School one day in September.

A large display of agricultural products raised by the boys and girls was one of the outstanding features of the program. In the morning there was an inspection of the school and of the school plots. At 1 p. m., after a picnic lunch, the athletic events opened competition for individual and school honors.

The boys' events included: 100-yard dash, high jump, shot put, and broad jump, and the boys were divided into three classes (1) over 100 lbs., (2) 100—130 lbs., (3) under 100 lbs. The girls competed in a 50-yd. dash, potato race, broad jump, and base-ball throw and were classed (1) over 100 lbs., (2) under 100 lbs. The open-to-all athletic events were: wrestling (lightweight 85—100 lbs.; heavyweight 120—160 lbs.); half-mile relay (4 men to a team), tug of war (5 men to a team).



A part of the grain and forage crops exhibits at the Fort Fair—dumb bells and Indian clubs in the background on the wall of the gym.

Following the track meet there



Waterloo High School boys gave a good fair. Fair Association officers front row, left to right, Melvin Else, Clarence Motl, Fred Kypke; second row, Russell Fox (left).



Rural school boys and girls with their teachers who helped make the weed identification contest a success at the Fort Atkinson Community Fair.

were talks by C. H. Hill, superintendent of the Wood County Rural Normal and Agricultural School, and L. M. Sasman, a corn demonstration by special team, a song by a male quartette and "movies".

Many of the prizes for the athletic contest were donated by city merchants. A pennant went to the winning farm school group, and was won by the Milladore group. Ernest Fait won the prize as the best project worker, a year's scholarship at the Wood County Agricultural School. Clarence Becker was declared second best project boy.

Thus you have another type of round-up. It might be added that Mr. Howalt has had a number of successful community fairs in the rural schools of Wood County this fall, and that he plans to follow up with Federal Farm Schools in many of these districts this winter. This "federal farm school" is a two weeks' course in dairy husbandry. These subjects will be discussed: 1, feeds and feeding; 2, balancing rations; 3, actually mixing feeds; 4, practical testing of a local herd; 5, keeping records; 6, dairy organizations; 7, problems; 8, auto mechanics. The course is open to all, but boys and girls in the community who are not in any other course are especially urged to come.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Alfalfa may truly be called the wonder crop. As a soil builder it is hard to beat. It has the power to take nitrogen from the air and convert it into food available for plants. Its root system keeps the soil in good condition. Alfalfa is one of the finest dairy feeds known. There now comes a third jewel for its crown. It is a weed killer. This and many other useful things you will learn from the November 21st issue of Hoard's Dairyman.

Tell about A. W. Oxley's experience with alfalfa. Mr. Oxley had a ten-acre field where Canada thistles reigned supreme. He planted the field to alfalfa and the following year the thistle crop was a thing of the past.

What has alfalfa done for Mr. Oxley? Besides helping him get rid of the thistles, it has made possible the economical production of butterfat. In 1923 for every dollar's worth of feed the cows consumed, he received more than two dollars' worth of butterfat.

Give Mr. Snoddy's idea of successful farming. This Ohio farmer had the largest labor income for 1923 of all the farmers who kept farm accounts with the Ohio State University. This he accomplished on a farm of seventy-six acres, sixty-three of which are tillable. His labor income for last year was $3,092.00. His idea of successful farming is not how many acres and cows, but fewer and better acres and cows.

Explain briefly the Whatcom plan of testing. Out in the state of Washington, Whatcom County dairymen wanted some method of testing, but did not want the regular association form. The plan they are following lays the county out in ten routes with a total of 1,725 cows and 160 members. Each member collects his own samples and weighs the milk. The tester makes two trips each month to the farms of the district collecting and distributing sample bottles. He does the testing himself in a creamery and sends his figures to the state college of agriculture to be compiled. From these figures he makes recommendations for improved practices to individual farmers. The tester is supported jointly by the extension service of the state college of agriculture and the cow testing association.



Turn Your Eyes to America's Cheapest, Richest Land

WESTWARD the tide of American development flowed in the century that is gone. First the explorers, then the buffalo hunters, then the settlers in their prairie schooners, eager to homestead on free, virgin land.

Today, the sons of those Western Pioneers are surrounded by civilization and close settlement. Their farms are located on high-priced land.

But where is the heritage of Opportunity for the sons of the *present* generation? Where is the cheap, rich land of today? Look to Canada!

Just over an imaginary line lies the Dominion of Canada, with the richest undeveloped area of agricultural land on the continent of North America. Low-priced, rich, virgin lands along the railroads—$15 to $20 per acre—are the heritage of to-day.

With 300 million acres some day destined to be plowed, less than 60 million are as yet under cultivation.

There—in Canada—lies your Opportunity. The spirit that made the West for your father's sons is calling *you* for sake of *yours*.

Canada is a good country to live in—a country easily accessible to the markets of the world—a country of over 40,000 miles of railroads—a country of democratic self-government, of security of life and property, and even-handed opportunity for all who are willing to work for their success. Canada is the original home of Marquis wheat. Canada grows the best oats and barley. Live stock thrive in Canada. Canadian bacon and dairy products compete successfully in the export markets of the world.

Canada's export trade, per head of population, ranks third among all nations. Canada's development is almost without precedent. Canada is a young giant of a country just realizing its own strength. Look to Canada!

The Canadian Government's Land Settlement Service, with its system of directing and locating settlers on suitable lands and looking after them until they are comfortably settled, is available to you *without cost.*

Take your pen or pencil and print your name and address in this coupon and mail it to us. We'll send you illustrated literature on Canada with complete information. You should have this information. Fill out the coupon. Mail it TODAY. The Opportunity you seek lies before you in CANADA.

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(Write name and address plainly)

Mail This

Junior Letters

My Experiences in a Calf Club

Hoard's Dairyman Juniors:—I have been in the calf club work for three years and I like it fine. In this work I have learned how to feed and raise dairy calves.

I joined the first year with a pure-bred calf which my father bought. The next year I took the same one as a heifer and the third year she was a cow. I took her calf and this year I am taking her second calf.

All these years I have been feeding my calf silage, ground feed, oil meal, and skimmilk and lead her to water twice a day. I also give her all the hay she will eat.

Just before show last year I washed her and clipped her and polished her up for show I have earned $21 clear prize money from the last three years' experience. My address is R. 1, Box 16, St. James, Minn.

Clarence Nelson.

Sells Garden Stuff—Swells Savings

Hoard's Dairyman Juniors:—I received the charm, button, and creed and am very delighted with them and show them to all the boys.

I am getting along very well with my poultry club work. Next year I am going into the calf club. I have some fine calf now, but I am not old enough to join the club. We have had quite a warm summer, but papa says not so hot as Wisconsin as he was born there and lived there for 22 years. We have one of the finest farms in the West. I am going to send you some pictures of it a little later. There are 380 acres. We farm to wheat, hay, and cattle. I have a fine garden. I live right at Mica so sell my garden truck right from house to house every morning which helps to swell my saving account.

I would be glad to hear from some juniors. I am 10 years old and in the 5th grade. I have no brothers or sisters, so you can see I enjoy getting a letter from a junior. Wish all Hoard's Dairyman Juniors the best of luck. My address is Lock Box 15, Mica, Wash.

Elvin Bloom.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Son of Matador Segis Walker from year record daughter of Johanna McKinley Segis for sale. He is three quarters brother to Matador Segis Walker 6th. 4 years old and guaranteed to be right in every way. We have 25 of his daughters in our herd which is federal accredited. GLEN RAMSEY, Fort Atkinson, Wisconsin. 18-4

For Sale—Fresh and springing T. B. tested Holsteins. JOSEPH FISHER, Janesville, Wis. 18-3

An Unusual Opportunity—going to discontinue farming and will dispose of entire herd of pure bred Holsteins at less than ½ of value. 1 bull, a winner of several first prizes and grand championships in 1923, 3 yearlings, 9 five to ten months old heifers, 20 two to five year old cows, many granddaughters of son of 37th. This herd has been bred up for years and will be sacrificed for immediate disposal. Write P. B. KNILANS, Mgr., Fort Atkinson, Wisconsin. 19-2

Holstein Bulls, all ages by 100 pound milk and 40 pound butter sires. Farmers Prices. ROY HARRIMAN, Appleton, Wisconsin. 14-spl

For Sale—My entire herd of 70 high grade Holsteins, own raising. Must sell at once. Bargain. Would exchange for high grade Guernseys T. B. tested. Am going in the bottle milk business. MEURER'S STOCK FARM, Genoa City, Wis. 20-*

Colorado Holsteins. High grade yearlings $25.00; twos, $40.00; young cows, $65; registered cows, high record bulls cheap. W. A. NORRIS, 1566 Kearney St., Denver, Colorado.

Registered Holstein bulls and heifers, one to twelve months. PAT WALSH, La Valle, Wis. 20-2

For Sale or Trade—Two 1000 yearly record bulls for grade or pure-bred cows. OSCAR WESTERHEIDE, New Douglas, Ill. 20-*

From Federal Accredited herd. Nice, well bred, registered Holstein bull calves from record dams. $40. WARD BROTHERS, Fort Atkinson, Wis. 19-2

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

Two Serviceable Guernsey bulls for sale whose dams and sires' dam average 705 lbs. fat. HOMER RUNDELL, Livingston, Wis. 18-*

Jo Daviess County Guernseys. Grandson of King of Chilmark selling at auction Thursday, December 4th at Elizabeth, Illinois. Send for sale list. DONALD L. BRYSON, Secy. 19-2

My Herd of Heavy Producing Guernseys. 6 registered cows, 9 high grade cows, good herd sire. Price $2,300 for herd. T. B. tested, a good, clean herd. C. J. FRIES, Ogdensburg, Wis. 19-2

For Sale—Advanced Registered bull, fourteen per cent May Rose blood. Good individual, sure breeder. ROBERT HARGROVE, Roberts, Wis. 20-spl

City View Farm offers for sale Guernseys, male and female, of all ages; May Rose Langwater breeding out of good A. R. dams Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 20-*

Rundell and Nicholson Dispersal sale December 19 at Livingston, Wisconsin. 56 pure bred Guernseys, 5 bulls, 51 females. See adv. next week. CHAS. A. WILKINS, Sales Manager, Platteville, Wis.

Pure-bred and high grade heifers and calves for sale. Also high grade Guernsey cows. A. B. RAYBURN, R. 3, Litchfield, Minn. 20-3

Advanced Register Guernsey bull whose two daughters made 454.88 and 578.13 lbs. fat in class G. Fine type. Sure breeder. A. E. PLEASANT, Beebe, Ark.

Grade Guernseys—Tuberculin tested. Carload of springers for sale now. Select what you want from my herd. LEE BURLINGHAM, Dousman, Wisconsin. 20-spl

Fifteen registered Guernsey cows and heifers. Bred to a son of Cherub's Prince. For prices write INLAND DAIRY FARM, Little Falls, Minn.

Wanted—Well bred Jersey calves. ARTHUR OTTO, Tulare, South Dakota.

Four Registered Jerseys. Herd sire a prize winner at state fair, record dam. Two cows, one with record. Yearling heifer. Majesty and Noble of Oaklands breeding. BERT McREYNOLDS, Normal, Ill. 19-2

For Sale—Two pure bred Brown Swiss bulls and one bred heifer. Also my herd bull. A. L. BURDEN, Coleman, Mich. 19-2

STOCK WANTED

Wanted—Thirty high grade Guernseys, young and T. B. tested. State best cash price; must be a bargain. MEURER'S STOCK FARM, Genoa City, Wisconsin. 20-*

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

Stock Buyers—Let us buy you a load of Tennessee best Jerseys, ready to freshen, delivered to you at Seventy-five Dollars per head. WHITFORD BROS., Kendallville, Indiana.

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

Alfalfa Hay For Sale—Write for delivered price, ALBERT MILLER & COMPANY., 192 No. Clark St., Chicago, Ill., or call our representative LaCrosse, Wisconsin. Telephone 851-A. 19-*

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

TOBACCO

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50. Smoking 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and recipe free. FARMERS UNION, Paducah, Kentucky. 17-4

Homespun Tobacco—Chewing five pounds, $1.50; ten, $2.50; smoking, five pounds, $1.25; ten, $2.00; pipe free, pay when received, satisfaction guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 19-4

Homespun Tobacco—Chewing five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied. UNITED TOBACCO GROWERS, Paducah, Kentucky. 20-4

SEEDS

Lespedeza Seed, recleaned, $5.00 bushel. J. F. BLANCHARD, Brighton, Tenn. 20-2

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

Liberal Commission to Farmers in Wisconsin. Take orders for Superior Agriculture Limestone. Easy and profitable. Write WISCONSIN LIMESTONE CO., National Exchange Bank Bldg., Waukesha, Wis. 19-2

PATENTS

Patent-Sense—Free book for inventors seeking largest deserved profits. Write LACEY & LACEY, 753, F. St., Washington, D. C. Established 1869. 19-52

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—De Laval No. 22 cream separator with motor and capacity tank. JOHN A. MULDOON, 1201 W. Lake St., Chicago, Ill.

For Sale—New De Laval milker. Never uncrated. 3 H. P. Fairbanks-Morse engine for same, new. Will take 25% less than cost. Will sell all or any part. O'NEIL DAIRY CO., Ames, Ia. 20-2

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

Milkmen—Use Fiske's Loose Leaf Route Book. Write for description. P. BAKER FISKE, Attleboro, Massachusetts. 19-3

CREAMERIES

Will sacrifice whole or part of my interest in good going creamery in Washington. Address BOX 362, care Hoard's Dairyman.

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hundred hunting hounds cheap. Trial C. O. D. BECKENNELS, K-28, Herrick, Ill. 18-4

Pedigreed German Police puppies closely related to "Strongheart". Very reasonable. LOUISE SMITH, Plum City, Pierce Co., Wisconsin.

POULTRY

Pure Bred Toulouse Geese, mammoth size. NELLIE CAVANAUGH, Neshkoro, Wis. 19-4

FARMS FOR SALE

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

Improved farms in Minnesota and North Dakota can be purchased on 34 years time, without any cash payment, by persons who have their own help, equipment and livestock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minn. 18-*

160 acre dairy farm right on the Jefferson Highway in upper Minnesota. Well improved, excellent soil, good drainage—only $41.50 per acre, $500 cash, balance at 3%. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, St. Paul, Minnesota. 18-4

130 acre improved farm, Macon County, Mo. $50.00 per acre or trade for Registered Jersey cows worth $2,500.00, balance long time, easy terms. L. A. WRIGHT, Atlanta, Mo. 19-2

For Sale or Rent—300 acre farm. Modern buildings. Established milk route with all equipment. A very good chance to make money but I have to depend on hired help. Farm will produce under proper management $20,000.00 per year. Anyone having help that will work can make good money. I will furnish everything to the right party. FRANK MILES, Rhinelander, Wis. 19-2.

Montana grain farms and stock ranches for sale or rent. Correspondence invited. J. B. GERGEN, Division B, Box 1197, Great Falls, Mont. 17-Spl.

Farm For Sale—100 acres in thriving village. Modern buildings, double house, electricity and city water. Short drive to Buffalo and Niagara Falls, on cement pavement. Only 12,000. CLAUDE PERSONS, Owner, Delevan, N. Y. 19-2

"Wisconsin Opportunities—Free Wisconsin bulletins. Soil climate, crops. IMMIGRATION DIVISION, Wisconsin Dept. of Agriculture, Capitol 25, Madison, Wisconsin." 19-8

Opportunity awaits you in Southeastern Montana. Corn, alfalfa, beans and small grains are dependable crops on Northern Pacific Railway Company's selected low priced lands—20 years to pay at 6 per cent—direct from Company to farmer. Address J. H. COOK, Eastern Land Agent, 803, Northern Pacific Railway Company, St. Paul, Minn. 17-Spl.

First reasonable offer takes the 1,250 acre farm. Has made over 100 bushels per acre. Good buildings, near town. Address owner, J. A. HINSHAW, Pleasantview Apartment No. 2, Kansas City, Missouri. 20-3

Northern Virginia Farms, country estates, near the National capital. BUELL FARM AGENCY, Herndon, Va. Office Herndon Hotel, Phone 38.

160 acre farm with horses, 34 cattle, 150 hens, 60 tons hay, 300 bushels oats, other crops, full machinery included; new 7 room house, 40 cow barn, houses 1500 hens, running spring water; smooth, dark loam fields, big pasture, estimated 700 cords wood worth $12 in market; sugar orchard and fruit; prosperous farmers all around; near lake, large manufacturing town. Owner cannot handle, big value at $5500, part cash. Details page 14, big Bargain Catalog, Illus. money making farms and business chances . Free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

Will Sell 160 acres Wisconsin land, close town, for $2000. Terms. Address BOX 364, care Hoard's Dairyman.

Oregon has many splendid agricultural records. Butterfat records, gold medal bulls, gold medal cows, world record cows. Oregon holds six of the eight Jersey world records for butterfat production. Butterfat produced cheaper than elsewhere because of green feed nearly every month of the year and mild, short winters. Average milk flow per cow one-third higher than in colder countries. Large yields clover, alfalfa, vetch and other legumes. Heavy egg production during winter. Oregon eggs bring 2c to 4c more per dozen in Eastern markets because of superior quality and pack. Successful co-operative poultry association. Banking and business interests united with farmers to provide markets and make agriculture a success. For free bulletins giving official information write Land Settlement Dept., Room 621, PORTLAND CHAMBER OF COMMERCE, Portland, Oregon.

Big Modern Farm. 184 acres, equipment, crops. Highly productive, mild Delaware River, city advantages and markets; 140 acres excellent fields, spring and brook watered, wire fenced pasture, woodland, variety choice fruit; 9 room house, furnace, running hot and cold water, electricity, basement barn, slate roof, other buildings. Can no longer handle, for quick sale will include 34 cows and heifers, 3 horses, sows, 300 hens, valuable equipment, crops, all for $13,400, part cash. L. D. BULL, 90 North St., Middletown, N. Y.

Minnesota has unexcelled markets for all classes of agricultural and dairy products. Come to the sure-crop state, where land is cheap. For free map and literature write OSCAR H. SMITH, Commissioner of Immigration, Dept. 676, State Capitol, St. Paul, Minnesota.

WANTED TO RENT

Man with family wants to rent farm on share basis. Dairy farm preferred. Inquire, FARM BUREAU OFFICE, Mount Carroll, Illinois.

Wanted—To rent dairy farm with good improvements in Chicago district. E. WELZ, Orangeville, Ill.

EXCHANGE

To Exchange—$6,000 equity in improved quarter section Jefferson County, Nebraska. Mile town and high school, 5½ miles County Seat. 70 acres pasture and timber, never failing stream, balance tillage and alfalfa. Have other business. Will exchange for registered Guernseys. NELLIE M. DAFT, University Place, Nebraska.

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Fireman, Brakeman, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 17-4

Mail Service Employees Needed. For instructions write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 16-*

Wanted—Man to help milk and take charge of milk house, must know how to make butter and cultured buttermilk. PARKHILL DAIRY, Benton, Ill. 19-2

Wanted—Experienced farmer on modern dairy farm. State experience, wages and give reference. MEURER'S STOCK FARM, Genoa City, Wis. 19-2

HELP WANTED

Wanted, for fine dairy in Illinois, clean, first class milkers, Hollanders preferred. Job open December 1st. Wages $60.00 and board to start, no quitters wanted. Give references. Address ERNEST LINDSAY, Oak Hill, Illinois.

Wanted—Herdsman on University Farm. $100 per month with house. Married man preferred. State live stock experience. References required. UNIVERSITY OF ARIZONA FARM, Tucson, Arizona.

Want single man to take charge of twenty Holsteins. CHRIS KITTLESON, Zumbrota, Minn.

Wanted At Once—Man with help to operate dairy farm, raise feed and take care Jersey herd, 20 milkers. State salary or share wanted first letter. Address MISS RUBY RICHARDSON, Garnett, S. C.

Help Wanted to take charge of milk house and help in barn on high class dairy. Bottled milk. Must be single, clean, a lover of Jerseys and interested in R. of M. work. Chance for inexperienced young man to learn much. A shifter not wanted. Good home and wages. Tell about yourself at once. C. T. OSCAR SCHACHT, Bloomington, Indiana.

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Position Wanted—Experienced dairy farm manager wants position on up-to-date dairy farm. Willing to take a real proposition on a profit sharing business. Thoroughly experienced in purchasing herds and erecting modern buildings. Now managing the largest dairy farm on eastern shore of Maryland producing certified milk. Address W. A. SIMPKINS, Salisbury, Maryland. 18-*

Position Wanted—as herdsman or farm manager. Twenty years experience in all branches. First class references. Give full particulars. Address BOX 351, Care Hoard's Dairyman. 19-2

Retail driver wants position. Steady, honest and reliable. Or will take charge of a dairy. Address BOX 366, care Hoard's Dairyman.

Position Wanted—By steady, reliable, single man. Experience on retail city milk route. General dairy and some creamery work. Or as second hand in creamery. State wages, etc. Write BOX 361, care Hoard's Dairyman.

Wanted—Position by married man. Educated, and experienced with cattle, hogs and poultry. Address BOX 363, care Hoard's Dairyman.

Single man seeks dairy or farm work. Experienced. I. KRAMER, Euclid, Ohio.

Agricultural college graduate, having ten years experience handling registered Holsteins, desires position with a Holstein herd in California. Address BOX 365, Care Hoard's Dairyman.

Alfalfa Pays

Alfalfa they say
Is a wonderful hay;
And where a man limes
It brings better times.
And let's not be tight
To make the soil right
For, indeed, it well pays
Alfalfa to raise.

It's good for the land;
It grows upon sand,
And to make it real sure
Use lime and manure,
No need to debate
We should inoculate
And once in a while
Give phosphate a trial.

Way up in the sand
And on the clay land
Where marl is applied
It is far from denied
That alfalfa will win.
When clover is thin
You bet that it pays
Alfalfa to raise!

Here are some things
Which alfalfa brings:
It grows on the hills,
It lessens feed bills,
It makes farming pay,
Keeps hard times away,
Puts milk in the pail
When other crops fail.

It grows like a weed
With the right kind of seed.
When drought is around
And fields are all browned
It's green when it's dry
In price it is high.
Yes, indeed, it well pays
Alfalfa to raise.

It's good for the cow
And fine for the sow
It's high in proteins
And rich vitamins.
It's most hard to beat
The calves that do eat
The alfalfa which pays
Most farmers to raise.

Out West it is cheap
The price is not steep.
But we certainly hate
To pay all that freight,
When we grow it at home
With good ground limestone.

And let me say now
To the friends of the cow,
That one of our needs
Is to raise our own feeds.
With timothy away
And alfalfa to stay,
We'll have better days
When we grow the right hays!

—L. F. GRABER.

American Jersey Cattle Notes

For week ending Nov. 7, 1924: Number of animals registered: Bulls, 198; cows, 758; total, 956. Number of transfers recorded: Bulls, 162; cows, 628; total, 790.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Blood Test for Abortion

Our herd has in the last year become badly infected with infectious abortion. To rid the herd of this disease we are seriously considering carrying out the program outlined by Mr. Simms in your issue of Aug. 29th. We wish to know something of the methods of testing. Can the tests be made on the farm without employing the services of a veterinarian? With our limited barn space and pasture it is next to impossible to isolate successfully. About our only hope as we see it is to rid the herd of abortion infected cattle.

Fairmont, W. Va. J. J. K.

The agglutination and complement fixation tests of the blood have proved of valuable service in controlling the contagious abortion disease. The agglutination test, the one most commonly employed, consists in bringing small samples of the blood serum of the cow to be tested in contact with a suspension of abortion germs or organisms in a physiological salt solution in test tubes and letting it stand for 24 to 48 hours. A positive reaction, indicating presence of the disease infection, causes elements called agglutinins in the blood to agglutinate the abortion organisms in a clump which falls to the bottom of the tube with clear liquid above. If the cow is unaffected no such clumping occurs and the fluid in the tube remains cloudy, as it was when the serum was added. A positive reaction to the test indicates that the cow from which the blood was taken is, or recently has been, infected with the contagious abortion disease. It does not prove that the cow will abort, but indicates that she is infected and may be capable of infecting susceptible heifers and cows with the disease. Isolation of reactors is therefore advisable. The complement fixation test is much more complicated; like the agglutination test can only be done by a trained bacteriologist or pathologist having all the necessary laboratory equipment and is not now commonly employed. A description of the method would have no practical value to the layman. The work of blood testing is undertaken by the veterinary departments of many of the state agricultural experiment stations for a nominal fee reimbursing for a part of the expense involved. Any qualified veterinarian can arrange to have the test made, take the sample of blood from each cow and heifer or heifer calf in the herd, and forward each of the samples in a container furnished by the experiment station experts in the way they prescribe. The blood of the herd bull may also be tested as may the blood of sows, when contagious abortion disease of swine is suspected. The test is reliable when properly done by a trained, experienced expert. It cannot be done by anyone else. Relative to the test and other matters concerning related subjects, we should advise the study of Bulletin 353 of the University of California at Berkeley. Particulars regarding the taking and shipping of samples of blood and the amount of the fee for the testing of each sample may be had by addressing a letter of inquiry to the veterinary department of the agricultural experiment station of the state in which the cattle owner lives.

Garget

I have a cow that went dry, giving thick and watery milk in June. She is to freshen in November. Last year she had milk fever when she freshened. I would like to keep her if there is no danger of losing her when she freshens.

Auburndale, Wis. M. F. A.

The likelihood is that garget will recur at calving and the milk be unfit for use. There is no certain way of preventing that when the disease has been present and germ invasion of the udder has been the cause. Milk fever will be less likely to occur if you have the cow take daily outdoor exercise, feed a light laxative ration. Keep the bowels active and when the calf is born let it nurse the cow for a week. There is little danger of losing the cow.

Fretting is like a rocking chair; you can do a great deal of agitating in it without getting anywhere.—DR. D. E. CROFT.



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THE OIL OF A MILLION TESTS

EN-AR-CO Motor Oil is real lubrication. It withstands the greatest heat any motor will develop, always retaining its cushioning properties. Prevents friction and insures a smooth-running motor Has greatest adhesive qualities. Prevents excess oil to accumulate and form carbon on cylinder head and plugs. Saves power that is lost by gasses passing the pistons.

Ford cars are not made to chatter. When they do they are not properly lubricated. There is no chatter to a Ford when En-ar-co (Light) Motor Oil is used and kept at the correct level, the crank case drained, flushed and refilled with fresh, clean En-ar-co every 500 miles.

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For Differential and Transmission.

"WHITE ROSE" The Gasoline without "Clinkers."

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THE NATIONAL REFINING COMPANY, 704-DD7 National Bldg., CLEVELAND, OHIO

Send En-ar-co Auto Game FREE. I have never received an En-ar-co Game. (Write your name and address plainly—preferably printed.)

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THOUSANDS OF DOLLARS FOR YOUR RAW FURS

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Sell DIRECT to a MANUFACTURER who eliminates the Middleman's profit and guarantees you more money for your furs.

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SPOHN'S DISTEMPER COMPOUND

Are your horses coughing or running at the nose? If so, give them "SPOHN'S." A valuable remedy for Coughs, Colds, Distemper, Influenza, Pink Eye and Worms among horses and mules. An occasional dose "tones" them up. Sold at all drug stores.

SPOHN MEDICAL CO. GOSHEN, IND. U.S.A.

LOWELL'S COW CLEANING PRESCRIPTION



Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It relieves GARGET, BLOAT, CONSTIPATION and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1.00 a package. Mfg. by LOWELL BLAISDELL & CO. NORWOOD PARK, : CHICAGO, ILL.

Ten Holstein Heifers FOR SALE

Echo Sylvia and Sir Veeman Hengerveld breeding. Dam of sire, twice a 30-lb. cow and great yearly record. Ages range from calves to yearlings.

L. A. KIMBALL Lake Geneva, Wisconsin

FOR SALE

HOLSTEIN BULL CALF born Aug. 30, 1924, ⅞ black. sired by a grandson of King Segis 10th and out of a 1,009 lb. 3 yr. old dam. Dam is a daughter of a nearly 30 lb. sire. Averaging about 60 lbs. butter a month in C. T. A. Write

E. WESENBERY, CHIPPEWA FALLS, WIS.

BACON-ENRIGHT ANNUAL SALE!
GRAND FORKS, N. DAK., DEC. 11th



100 HOLSTEINS

65 PUREBREDS

A representative offering from the Bacon and Enright herds, two of the greatest in the N. W. Several daughters of "41ST" and "39TH"; also granddaughters of "Piebe and "Count".

An opportunity for breeders.

35 GRADES

FRESH COWS and SPRINGERS. A choice lot in every way.

Send for descriptive folder

TWIN CITY PEDIGREE & SERVICE CO., Market Bank Bldg., MINNEAPOLIS, MINN.

Dispersal of Registered Holsteins !

OWNED BY FRANK LUDWIG

Dousman, Wis., Dec. 4 --- 40 Head

1 aged bull, King Pontiac Fayne Butter Boy No. 209760; good type, good breeding. His sire is an 1129-lb. son of King of the Pontiacs. His dam is a 30-lb. daughter of Pontiac Jewel Butter Boy. Most of the cows in calf to this bull.

20 cows. Several springing heifers. Including a 26-lb. cow; two 22-lb. cows; two with records of 19 lbs.

7 yearlings. 9 heifer calves. All sired by a 902.95-lb. son of Clyde Sethje.

Herd Federally Accredited. Sold under a 60-day guarantee.

Sale at farm 1½ mi. E. of Dousman on Highway 41. General farm sale in forenoon. Lunch at noon. Holstein sale at 12:30 sharp.

AUCTIONEER -- J. E. MACK SALE MGR. -- F. H. EVERSON

SALE ANNOUNCEMENTS

Dec. 2—Holsteins. Western Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Webster City, Secretary.

Dec. 3—Holsteins. Eastern Iowa Breeders' Sale at Waterloo, Ia. H. W. Gleim, Sec., Webster City.

Dec. 4—Guernseys. Jo Daviess Co Guernsey Ass'n., Elizabeth, Ill.

Dec. 4—Dispersal of Frank Ludewig herd at Dousman, Wis. F. H. Everson, Lake Mills, Wis., Manager.

Dec. 6—Holsteins. Dr. J. Van Houten Dispersal, Valley City, N. D.

Dec. 9—Holsteins. Dispersal of J. M. Kelley herd at Baraboo, Wis. Frances Darcey, Sales Manager.

Dec. 11—Holsteins. Bacon—Enright Annual Sale, Grand Forks, N. D.

Dec. 17—Holsteins. Consignment Sale at Berea, Ohio. Ohio Holstein-Friesian Ass'n., Mgrs.

Dec. 19—Guernseys. Dispersal sale of the Rundell & Nichalson herd at the Sales Pavilion, Livingston, Wis. Chas. A. Wilkins, Mgr.

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at World's Greatest School. Term opens Dec. 1st. Students have advantage of International Live Stock show for Stock Judging. Write today for large, free catalog.

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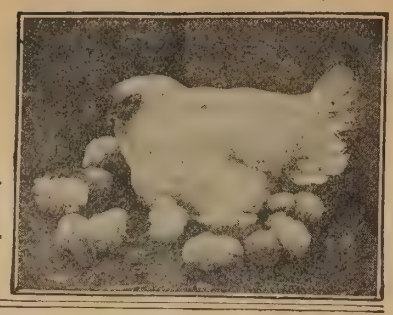
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If you want either purebreds or grades from federal tested herds and sold on a retest guarantee write us. Prices are very reasonable.

ROCK COUNTY HOLSTEIN BREEDERS' ASS'N.
John W. Jones, Sec. MILTON JCT., WIS.

POULTRY On The DAIRY FARM

J. B. HAYES



The Economy of Feeding

The important question to be considered in feeding a flock of hens is not how much one puts into them but how much they will return per unit of investment. This is especially true this year when feed prices seem to be higher than usual. A good flock will return a profit during this or any other year when properly handled. A poor bunch should never be kept. The statement has often been made when talking cows, and the same holds true with poultry, that there are more good individuals than there are good feeders.

From the scatterng reports that are received from dealers at country points, it would seem that a higher percentage of stock is being sold than normal. Part of this may be due to local conditions and part to the fact that one cannot remember from one year to another how much stuff is handled. If this statement is true, the owner of the right kind of a flock is in a position to clear good money during the year. There are too many people that can only see the increasing feed prices and do not consider the higher price that is now paid for eggs.

There are as many different kinds of hens as there are colors. Some of them will be a total loss and will make enough to pay for the water that they drink. Others will return from three to four dollars for every dollar invested in feed. This is fairly conservative and not an impossible goal to reach. The undersized, mixed flocks of diseased hens in stone or other damp houses, fed on a lot of promises and a little rye, can never do it. Egg production is a manufacturing process of converting raw material into a finished product that can be sold on a good market. Too many flock owners expect hens to work miracles.

Probably the first part of the menu is a scratch feed consisting of a combination of grain feeds. When one thinks of it in that sense it discards the old idea of some oats in the morning and another grain at night.

In many instances, the scratch feed is considered as the part of the ration that the fowl utilized for body maintenance. Although a hen will draw on her body reserve to a certain extent, she will ordinarily consider her own needs first and utilize the excess for egg production. About two-thirds to three-fourths of her total consumption is needed for maintenance.

As a single grain ration there is nothing can replace corn. It stands in a class by itself and should constitute the bulk of the mixture. Wheat is also high in food value but second in the choice of feeds. The addition of this grain to a ration will improve the value when the price is not excessive. Shrunken kernels are classed as feed wheat, lower in price, and desirable.

Because a hen cannot properly utilize crude fibre, both oats and barley are of little consideration when fed as the sole grain. The heavier, plump grain is, of course, worth considerable more than the light grain that is produced in some seasons.

Certain sections, where buckwheat is extensively grown, may be used to good advantage. Rye and some other crops are practically worthless and the hen will show her good judgment by refusing to eat it. Most of the producers would be farther ahead by trading rye for something worth while.

Hens are like most everybody else in that they will do no more work than is required and will get their living for nothing if it is at all possible. That is one reason for the necessity of a rather deep litter on the floor to force exercise.

Often the purpose of the litter is defeated by a flock owner feeding too liberally in the morning. As soon as a fowl's appetite is satisfied she becomes contented, assumes a complacent attitude toward life and refuses to work. Work during the day is what promotes production, avoids the development of vicious habits such as egg eating or feather pulling, and forces the consumption of dry mash.

Setting stated amounts to be fed a flock is flirting with trouble, for conditions are variable. Maturing pullets demand a rather high percentage of grain feed in proportion to the mash. Using artificial light, for the best results, will need an increase in grain feeding. Each of these problems are individual and demand special handling.

Just as a guide, one can state that about four pounds of grain feed to one hundred hens as the morning feed is about right. It is certain and proved that feeding this amount will give better returns than the more common method of throwing in about four gallons.

The night feed should be heavy. This means at least twice as much as was given in the morning and maybe more. A more certain system than watching the pounds at night is to watch the hens. See that the birds have their crops filled at roosting time and that no considerable amount remains in the litter. A small amount remaining can be used as part of the morning feed and will be available when the hens leave the roosts. A night feeding will vary from week to week with changes in temperature, production of the flock, or condition of the hens.

When one speaks of corn in the ration it means either shelled or cracked. The idea of promoting exercise by feeding off the cob may be good in theory but is not so commendable in practice. Working over the litter promotes exercise for the important parts of the body. Pecking away at an elusive, sliding ear of corn may develop the neck or throat muscles of a loud voice speaker or wrestler but it is rather weak on production.

The choice between shelled or cracked corn is a difference in price. When one cracks home grown corn and is equipped to save the meal for the mash, it may be preferable in that more work for the flock is induced by hunting for the smaller pieces.

After production is well started, the feeding of equal proportions of scratch and mash is advised. This condition is often impossible and if one can force the flock to consume one pound of mash to every two pounds of grain, good results are obtainable. Early in the fall with growing pullets or molting hens, a higher proportion of scratch to mash will prevail.

The statement has often been made that in feeding a flock of chickens one should take one pail of feed with one pail of hard, common sense and feed them both at the same time. Watch the flock, note their physical condition, and watch the litter. Overfeeding is just about as disastrous as underfeeding.

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The new editions have more room for records on each page and are generally improved for your convenience. We sold hundreds of these leather bound books last year and feel confident that with the small improvements the book will be even more popular. Book will accommodate herd of one hundred head. Complete with pages for full services, gestation tables, index, etc.

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They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

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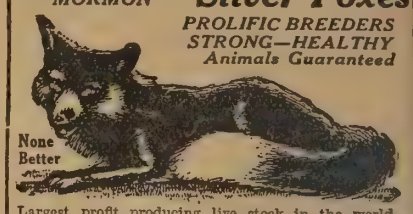
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REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

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Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
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FOR SALE Bred or open heifers, mature cows, one or a car load. Also a few baby bull calves.
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2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
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Young Bull of Serviceable Age
and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
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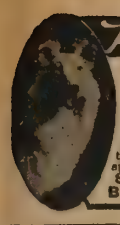
Valley Farm
is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write
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Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
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FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

The Son of a Silver Medal Bull For Sale
SNOWFLAKE'S TORMENTOR 234788, born Feb. 24, 1924
A fine fellow, tracing to Gold Medal Bull, Sophie 19th's Tormentor, on both sides. Photos, pedigrees and description on request.
Herd Federal Accredited SHERMAN JERSEY FARM, Dept. B, Charles City, Iowa

Jersey Bull Calves
We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.



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This one quality alone makes our Scotch Collies rare bargains. They're gentle, fearless, devoted. Have every quality a dog should have—intelligence, courage, strength. Fine shepherds, unsurpassed as watchdogs. Indefatigable enemies of vermin. They are the "Aces" of all dog-dom. Satisfaction guaranteed. Pairs not akin. Get our special bargain lists now.
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produce a quality product. The public demands a quality product, and pays for it. Take your share of the profits.

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WADDINGTON FARM
Home of "Imp. Border Raider"
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Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

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Herd Sire—LANGWATER HORATIUS, son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams, is present. All daughters will be retained in herd and tested. At 1924 Ohio State Fair we had Jr. champion female and Sr. and grand champion female. At the next show we won 8 out of 9 firsts, 3 championships and 1 grand championship.

CHAGRIN FALLS, OHIO
For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

Jo Daviess Co. Guernsey Ass'n
FIRST ANNUAL SALE
THURS., DEC. 4, ELIZABETH, ILL.
GRADE COWS and HEIFERS
PUREBRED BULLS
DONALD L. BRYSON, Sec'y, ELIZABETH, ILLINOIS

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Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

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SERVICEABLE BULLS with best of breeding for sale. Write
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We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.
Send for new list.
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2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

We Offer For Sale Young Bulls, Cows and Heifers

I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.
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Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.

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Herd sire's dam's A. R. record, 836 lbs. B. F. High herd, also highest cow in Testing Association. High producers only.
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GRANDSON OF CHERUB'S PRINCE

HYACINTH'S CHERUB OF CHIPPEWA is a toppy, well grown, 10 months old bull. He has typical Cherub type, just the kind you want in your herd. His sire is a show son of that great bull, Cherub's Prince. His dam is a big, strong, heavy producing granddaughter of Stranford's Glenwood of Pinehurst 6th. Write me today if you want a first class bull at a farmer's price.

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Cherub Guernseys

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

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BULLS 6 to 10 Mos. Old

From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
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Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

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Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.
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Accredited herds of choice breeding and show matrons headed by SIRES of best breeding. We solicit your inquiries for breeding stock.
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100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address
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May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.
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Son of Langwater Holliston For Sale
PRICE $500.00

LANGWATER HOLLISTON is one of the breed's famous bulls. His blood is very much in demand. The son we are offering for sale is ROCKINGHAM HARLEQUIN 100224. He is a good individual and is out of a daughter of Florham May King and granddaughter of the great Itchen May King. THIS BULL IS FIT TO HEAD THE BEST OF HERDS AND IS PRICED FOR QUICK SALE. He was born Oct. 8, 1922.

We also have several cows in calf to Langwater Holliston or his sons that we are now offering for sale at a reasonable figure. Address correspondence to

D. G. TENNEY, 15 West 4th Street - - NEW YORK CITY

Ladysmith's Cherub and Gerar Pearl

We are line breeding to these two great individuals by using our herd sire CHERUB'S DART (out of PEARL'S DOT) on the seven head purchased at Mr. Stout's Sale.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

2 SONS OF LADYSMITH CHERUB
The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

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Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

EL JANE GUERNSEYS
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Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.

Federal Accredited EL JANE FARMS, - Arcadia, Missouri

50 GRADE HEIFERS—Priced to Sell!
REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS
Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.
Send For New Price List

Grade Guernseys For Sale

200 COWS and HEIFERS TO SELECT FROM

DO YOU WANT HIGH CLASS, HEALTHY, GRADE GUERNSEYS? We are offering you a choice of 200 head right now,—some of them close springers. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself.

Every animal sold, guaranteed to be as represented.

RIVERVIEW FARM, Lloyd L. Dewey MUKWONAGO, WISCONSIN
IN WAUKESHA COUNTY

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to
JAMISON BROS., R. 2, Appleton, Wis.

Serviceable Guernsey Bulls

We have 35 serviceable bulls for sale here now at very reasonable prices. We are also offering several carload of good grade cows and heifers and can supply pure-bred females in carload lots.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec., Fort Atkinson, Wis.

This Blood Sells Fast!

Our bull calves are either sons of Anton's King Confidence or out of his daughters. They sell so rapidly that only in rare instances are we able to keep them until they are old enough for service. If you want a bull possessing this blood to head your herd, buy a calf six months' old, raise it yourself and save money. A. K. C. has gained a reputation for siring mighty good udders along with the other desirable characteristics. A bull of our breeding will make money for you and improve your herd.

Hoard's Dairyman Farm
FORT ATKINSON WISCONSIN



ANTON KING CONFIDENCE 43517

Lessons From My Trip About Denmark

(Continued from page 601)

learn much more from Denmark in all other branches of the dairy industry.

While the whole address by Professor Jensen contained much of great interest, I shall only this time call attention to a few points of special importance for a wholesome milk supply. He stated that it was only since 1910 that we heard anything at all about those—I don't know what to call them—vitamins! Now everybody talks about them, and we see big advertisements about their importance. So it has been found that milk contains more of those vitamins most important for both humans and animal beings, but also that when no green fodder is used, these vitamins disappear, for which reason milk as most generally produced in winter is not as wholesome as when the cows are on grass. Again we are fortunate in America, where silage now is so generally introduced, as this feed provides these vitamins abundantly and thus makes the winter milk more like the grass milk. While hay while green of course provides vitamins just like grass, still they are killed by exposure to air, and thus are lost in the dry hay.

Jonas Nielsen's System

Some call it "Nielsenizing", but it doesn't sound right! And while it really sterilizes the milk, still it must not be called sterilizing, because all the objectionable features of the sterilization of milk are avoided. Now that may sound big, but still it is absolutely true. As I said before, low pasteurization as now practiced is the best method for city milk supply—until something still better may be invented or discovered! Mr. Nielsen's system is not untried, but has been successfully introduced in the Transvaal and is also in use now in Winnipeg. Mr. Nielsen showed me through his splendid machine factory, and also the milk plant in Horsens, where some milk is treated by his system. I shall not now go into details but only state these facts: The milk is heated by a special process, excluding all access of air, to as high a temperature as 135° Centigrade, but for only 60 seconds; is rapidly cooled and bottled or canned, also avoiding all exposure to air, and will keep indefinitely. The most interesting and important advantage is that tests have shown that absolutely all tubercular or other germs are destroyed and—what is equally important—that the milk tastes like fresh milk and also contains all the important vitamins. The only practical objection I thus far can see to this system is that the cream will not rise as perfectly as on low pasteurized milk, but that only about 75 per cent of the cream will come to the top. After all, we have here a most important new progress, and this system undoubtedly will have a great future before it, especially where milk has to be transported long distances. We all ought to be open to convictions, and I await with great interest further developments.

As soon as I know more I shall let your readers know about it.

Ready For Service

SONS OF HOWIE'S KING OF HEARTS or CAVALIER'S LORD ROSEBERRY. We are also offering 6 BRED HEIFERS and 10 YOUNG COWS. Write us for prices. Remember our showring success combined with our herd production insures your getting real animals.

ADAM SEITZ & SONS. WAUKESHA, WIS.

Ayrcroft Farm Ayrshires

have again proven themselves winners in the show ring as well as producers. Write for what you want. Herd Federal Accredited.

B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.

Wm. NISBET & SONS, Richland Center, Wis.

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Attractive Ayshire Offering

BULL BORN APRIL 18, 1924

Color: white with brown cheecks. He has a level back, well formed rump and clean cut head and shoulders. Sire, Penshurst Rising Star, 20922. Dam, Favorite's Beauty, 50089, a large, typy foundation cow with big udder and good teats. A. R. Records: 10,556 lbs. milk, 456 lbs. fat, 4.32%; 11,470 lbs. milk, 512 lbs. fat, 4.47%. Again on test.

Herd Federally Accredited—Certificate No. 10241.

Price: $125.00

GLEN FOERD FARMS, Torresdale, Pennsylvania.

High Producing Ayrshires

AT FARMERS' PRICES

Young cows, heifers, and bull calves for sale. Sires backed by world's record production and most popular breeding. Herd federally tested.

CLOVER BROOK FARM, R. F. D. 2, Bristol, Pa.

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.

FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

HOLSTEINS

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.

If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Deusman, Wis.
A clean herd under state and federal supervision

Ormsby-Homestead

HEIFERS and BULLS

FOR SALE

Sired by our son of Sir Piet., Marathon Aaggie. Out of 7-day and yearly record dams.

A Clean Herd
Under Federal Supervision

MILFORD MEADOWS STOCK FARM
J. C. CORT, Mgr., LAKE MILLS, WIS.

Ollie-Ormsby

BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.

WALCOWIS FARMS Lake Geneva, Wis.

AYRSHIRES

—WALLIS FARMS— AYRSHIRES

Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance.
Federal Accredited Herd.

H. M. WALLIS, *Owner* Racine, Wis.

50 HEAD Complete Dispersal Sale 50 HEAD

REGISTERED HOLSTEINS—Famous John M. Kelley Herd

December 9th A Herd of Unquestioned Type and Proven Production, to be Sold at **Baraboo, Wis.**

Three years of phenomenal success on the show circuit. Yearly records up to 828 from 19,000 lbs. of milk on two-year-olds and up to 931 lbs. of butter from 26,885 lbs. of milk.

Unbeatable get of sire class—grand champion two-year-old, remarkable calf herd, exceptional jr. yearling daughters of cows up to 37 lbs. in seven days and 1344 butter in a year, to be sold—as well as a dozen "knockout" bulls including the herd sire, Canary Paul Heilo Aaggie.

A most attractive combination of Homestead breeding has been woven into the herd. Kelley will present the greatest combination of type and yearly production ever offered. On Dec. 9th he is going to take the gamble out of the public sale business.

The herd is absolutely clean and healthy and will be sold on a retest.

For Catalogs Write

FRANCIS DARCEY, Manager WATERTOWN, WIS.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

JOHN H. PULS - - ALLENTON, WIS.

Registered Holstein Male and Female Calves

Homestead and Matador breeding

A Clean Herd PRICE $30.00 and up

O'CONNOR BROS., R. R. 1, Watertown, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y, Randolph, Wisconsin

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

OUR HERD SIRE Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*

Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".

Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.

Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.

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Select Your Foundation Females in Northfield Community

WHERE MANY OF THE GREAT HOLSTEINS OF THE BREED, OR THEIR IMMEDIATE ANCESTORS, WERE BRED

Send for the new community circular just out, or better still, come and select those *you like* whether grades or pure-breds. We have them at reasonable prices.

CARLETON COLLEGE FARMS NORTHFIELD, MINNESOTA
FEDERAL ACCREDITED HERD

A SHOW BULL --- Soon Ready for Service

Born February 17, 1924

His Sire: Onal Sir Johanna Ormsby, 1st prize N. W. Dairy Exposition, 1923, with dam's record of 688 lbs. in 305 days as Jr. 2. His Dam: A typical 2-year-old daughter of Sir P. O. M. 41 with dam having 700 lbs. in 305 days. Breeding: The Ormsby-Colantha combination.

Ask for picture, price and particulars.

ONAL HOLSTEIN STOCK FARM, Alexandria, Minn.



Onal Sir Johanna Ormsby

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale: also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—King Piebe Ormsby Mercedes, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and King Pietertje Mercedes Ormsby, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

Dr. J. Van Houten Dispersal!

75 PUREBRED HOLSTEINS

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An offering you cannot afford to overlook. Splendid type, Popular Ormsby breeding and a Clean Herd.

Over half the animals in the sale are by the Champion bull, *Sir Korndyke Ormsby Piebe 3d*, whose dam and sire's dam are 1000-lb. daughters of *Sir P. O. M.* Most of these are two to five years of age. Also many cows bred to him.

Several daughters of the junior sire, a son of *Marathon Ormsby from a 30-lb. 3-year-old.*

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Twin City Pedigree & Service Co., Sale Mgrs.
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GRANDSONS of SIR P. O. M. 37th

from dams with long time records up to 1024 lbs. butter in year. Federal Accredited Herd. Prices from $75 to $200.

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Write us your wants. We can furnish you with bulls from 7-day aad year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
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Choice Dairy Cattle

FOR SALE—200 head of the very best Holstein and Guernsey cows, heifers, 4 to 8 weeks old calves at reasonable prices. Write the

WHITEWATER STOCK FARM
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In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

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LORD FAYNE VALDESSA NO. 187263, proven sire. Dam's record seven days 30.61 lbs. Milk 630 lbs. Thirty-day record 125.49 lbs., milk 2,589 lbs. Write

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Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
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30 Extra Fancy Grade

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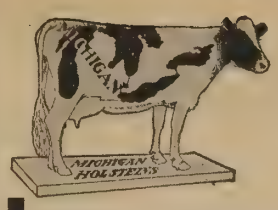
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back of this young Holstein bull and he is yours at a low price. Age 10 mos., white. Younger calves offered also.

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TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.

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One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $150 takes either bull. Herd under Federal supervision.

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MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

IF YOU OWNED

SERRADELLA KING DORESS you'd be mighty proud to use him. His dam made 28.38 btr. 527.5 milk 7d and in 229d S. O. 305d test has 17,281.4 lbs. milk. She is a full sister in blood to Dora Riverside Colantha with 31.90 btr, 580.9 milk 7d, 122.37 btr 2176.5m at 3½y and 28.91 btr 623.8m 7d 2½y (State milk record when made) 114.81 btr 2438.0 milk 2½y 30d and winner of 91 points in 1923-24 Honor Roll. Born March 11, 1924. Straight as possible to be and well grown. Price 175.00. Send for picture and pedigree.

SERRADELLA FARM, Albert E. Jenkins, Mgr.
A Clean Herd OSCODA, MICH.

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AT FARMERS' PRICES!

I am offering for sale several excellent young bulls at very reasonable prices. They are sired by Ollie Pontiac Segis Piebe, one of the finest individaul sons of Piebe Laura Ollie Homestead King, out of a 1025-lb. daughter of King Segis Pontiac Count. and are out of well bred, good producing dams. These bulls are from a few weeks to twelve months old.

WRITE TODAY IF YOU NEED A BULL

LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

SERVICE BULLS

We have only two yearling bulls on hand at the Traverse City State Hospital. Both are well grown and ready for light service now.

Bull No. 527. Born September 15, 1923. Two-thirds white.
Sire: A 34-lb. grandson of May Echo Sylvia.
Dam: A 20-lb. Jr. 2-yr.-old daughter of a 35.5-lb. cow with a 305-day record of 950 lbs. butter and 21,146 lbs. milk. Her dam, a 33-lb. cow.
His seven nearest dams average 32.04 lbs.

Bull No. 535. Born November 9, 1923. Three-fourths white.
Sire: A 36-lb. grandson of May Echo Sylvia.
Dam: A 27.78-lb. daughter of a 30-lb. cow.
His seven nearest dams average 32.78 lbs.

Remember—these are the only service bulls now available from this herd. Send for our list of bulls for sale by Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD

Send for List



MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
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High Testing Show Bulls

=ALL AGES=

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD Norwalk, Iowa

150 Holsteins At Auction!

TUESDAY, DEC. 2d-- Eastern Iowa Holstein Breeders', WATERLOO, IOWA, Cattle Congress Grounds -- 80 PUREBREDS

COMPLETE DISPERSAL—Peck Bros. herd at La Porte City.
SEMI-DISPERSAL—H. E. Brintnall, Winthrop.
DISSOLUTION—Oak Grove Holstein Co., Cedar Falls.
OTHER CONSIGNMENTS from herds of O. L. Hamer, John Cunningham, Thos. Hansen, Peder Pederson & Sons of Blackhawk County, and D. J. Sessler, Dumont.

WEDNESDAY, DEC. 3d -- Western Iowa Holstein Breeders', DES MOINES, IOWA State Fair Grounds -- 70 PUREBREDS

REDUCTION—25 head from Chas. Otis herd at Boone.
COMPLETE DISPERSAL—J. H. Bennett herd at Albia.
OTHER CONSIGNORS—Include, A. D. Severe Dows, Z. C. Thornburg, Des Moines, Fred Dan, Woodward, Hargrove and Arnold, Norwalk, Fairburn & Wood, Fonda, Henderson, Erickson, Randall, and others.

These are a good representative lot of cattle and are being sold because of lack of room or change of business conditions.

Buyers will have an opportunity to buy fresh cows, cows in calf to good bulls, good yearlings, and some well bred bulls.

Cattle are practically all from Accredited Herds.

Direct train connections between Waterloo and Des Moines. Parties may buy part carload at Waterloo and complete load at Des Moines Sale. Send for illustrated folder.
60—90-day retest

Largest group offering to be made in Mid-West this Winter

Both Sales Under Management of IOWA HOLSTEIN BREEDERS' ASS'N, Harry Gleim, Field Sec., Webster City, Ia.

The "Wonder" Cream Separator

Made in two sizes: Six hundred pounds per hour—your finger turns it. *Twelve hundred pounds per hour*—your hand easily turns it.

MARVELOUS DURALUMINUM BLADES, strong as steel, one-third the weight, and absolutely rust-proof. CLEANEST SKIMMERS EVER MADE and at any speed—fast or slow. TURN FAST and greatly increase the capacity.

A jewel—a diamond—among separators—beautiful—hardy—durable—and indestructible.



Read what America's greatest dairy authorities say:

'Tis the Super Separator—

far in advance of all others. See what the world's greatest dairy authorities say. In every instance, these are the dairy professors' own words when they saw the Allsteel at work:

At Wisconsin University—"The finest Separator we have ever run and the greatest improvement in cream separators." Another professor said, "If I had a farm I would prefer an Allsteel to any other."

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At University of Illinois—"The biggest improvement in separators we have ever seen—it is a wonder."

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At Missouri University—"That is just what the farmers want. The Allsteel will own the separator business in Missouri when people see it and learn all that it does."

* * *

At Arkansas University—"Finest thing in separators—it beats anything I have ever seen."

* * *

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At Georgia University—"It is the most remarkable separator I have ever seen. When farmers see it they will buy nothing else."

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At North Carolina University—"It is a wonder."

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At Blacksburg (Va.) College—"Your variable feed is the greatest feature of the hand separator today and now with the Allsteel you have the world beaten."

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At Purdue (Ind.) University—"You have a wonderful separator."

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At Lincoln (Neb.) University—"I think it is fine. I can recommend it to anyone who wants a separator."

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At Ohio State University—"A wonderful separator. Could not have believed such work possible if we had not run and tested the Allsteel for ourselves."

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At Cornell (N. Y.) University—"Take it from all angles, it is what the farmer is looking for. If a farmer sees this, he will never buy a disc separator."

* * *

At Michigan University—"It is a wonder. Just what the farmer needs. About fifty years ahead of the others."

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At Amherst (Mass.) College—"The biggest improvement in separators we have had in years. It is an all-purpose separator and has all others skinned a mile."

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Such strong and direct statements from the leading dairy authorities of the world are absolutely convincing.

SHARPLES Allsteel Separator

Order on coupon below and we will deliver an Allsteel *to your door*, without one dollar of expense to you. If, after thirty days' free trial, you wish to buy it, you may have a whole year in which to pay for it by installments.

You are wondering how we can offer such liberal terms.

A million Sharples Separators have been sold for cash. For over forty years these have led in quality and performance. But never before was a Separator so enthusiastically endorsed by everyone who sees it as the Allsteel has been.

Never before was a Separator so far ahead of all competition. Never before were we so sure that the Separator would sell itself and would need no salesman.

Farmers are honest and trustworthy. We have found them so. Out of thousands of farmers to whom we have shipped Allsteel Separators, on these wide-open terms, not one of them has taken unfair advantage of us.

Fill in and sign the blank. Then mail to us today. Lead pencil will do, but write plainly. The Allsteel Separator will be at your door very soon.

Mail This Coupon

THE SHARPLES SEPARATOR COMPANY
WEST CHESTER, PA.

Branches: San Francisco, Cal. / Chicago / Toronto, Canada

Please deliver to me at your expense a $100 Six Hundred Pound per Hour Sharples Allsteel Cream Separator, for thirty days' free trial at my home.

I assume no obligation, but will try it for thirty days and return it at your expense, if it is not satisfactory in every respect. On its arrival, I will indicate terms I want in case after satisfactory trial, I wish to buy it. If I buy the Allsteel Cream Separator I want a liberal allowance in exchange on my old separator.

(WRITE NAME AND ADDRESS PLAINLY)

What kind is old Separator and how old is it? _____ *Name* _____

How many cows do you own? _____ *Mail Address* _____

Do you own or rent your farm? _____ _____

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



A SCOTCH QUARTETTE
Owned by A. L. Farwell, Illinois

Volume LXVIII, No. 21 Fort Atkinson, Wisconsin December 5, 1924

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De Laval Agents are now making liberal allowances for used centrifugal cream separators of any age or make, as partial payment on new De Laval Separators of the latest improved type.

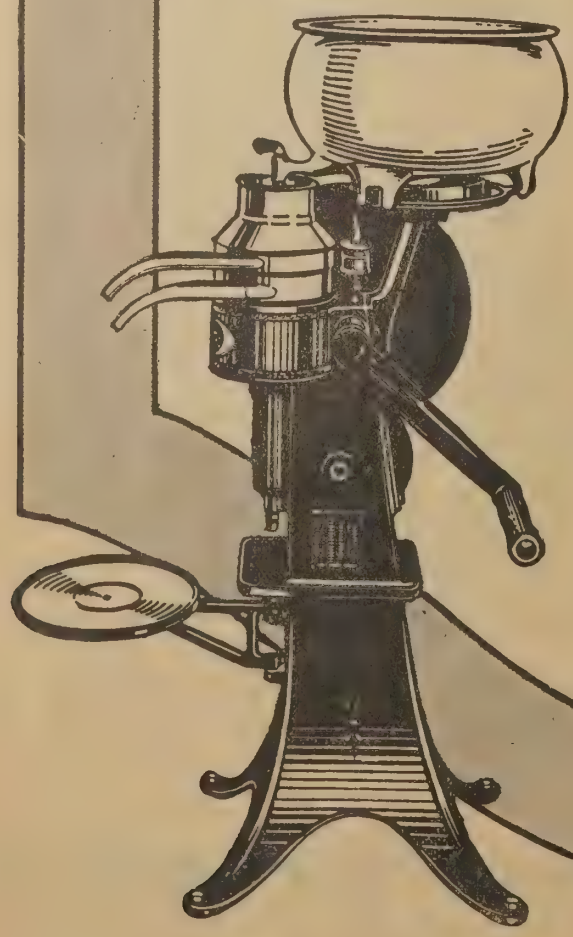
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The De Laval Milker. If you are milking 10 or more cows by hand, you need a De Laval Milker. Sold on such easy terms it pays for itself. Over 25,000 in use, giving wonderful satisfaction.

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HOARD'S DAIRYMAN

Entered at Fort Atkinson, Wis., as second class matter.

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., DECEMBER 5, 1924 Number 21

What Can Be Accomplished Through Co-operative Marketing

J. F. LARSON, WISCONSIN

IN all the productive industries, with the single exception of that of farming, the selling of the product is considered as much a part of the business as the production. Farmers have never, either individually or collectively, given the same energetic attention to the problem of selling their products as they have to producing them. As population increased and our civilization became more complex, a large number of privately owned marketing agencies were established. These private agencies developed into great complicated systems and farmers lost completely all control of the distribution and sale of their products.

Both in school and at home farmers have studied principles and methods of scientific production. No opportunity to study the principles of marketing was offered for it was not considered a part of the farmer's business. In the course of time many farmers became dissatisfied with results in marketing and some began to assert that marketing is an inseparable part of the business of farming, and, consequently, should be managed by the farmers themselves.

As farmers can not manage a business conducted by agencies owned and controlled by some one else, it clearly means that these privately owned agencies must be displaced by agencies owned by the farmers. Such a doctrine was naturally strenuously opposed by the men who were in control of the marketing agencies. They claimed that the farmer's business was to produce and that there was no justification whatsoever for the farmers to meddle in the business of marketing.

At the start general public sentiment, the press, and other educational influences were almost wholly on the side of the dealers. This sentiment has, however, undergone a marked change in recent years, and now co-operative marketing is advocated by practically all public educational institutions.

Farmers Not Unanimous

One would think that farmers would be unanimous on the question —that they would all take sufficient pride in their business to want to control all phases of it, and, for that reason, all favor marketing their products through their own organizations. Such is not the case and, strange to say, some of the farmers are among the bitterest opponents of co-operative effort. Their natural tendency to suspicion and jealousy and the fear that some of their fellow farmers may secure a little advantage or get into a position of more importance than they, causes many of them to put more trust in a private dealer than they do in the directors of an organization in which each of them can be a governing factor. In fact it seems impossible for some farmers to comprehend that, if they become members, they are the organization. They always think of the co-operative as merely another class of dealers.

Farmer's Lack of Personal Responsibility

Those who like to sneer at the farmers' efforts to get control of the selling end of their own business often speak of farmers being gypped by this or that movement, or this or that organization. If farmers are gypped it is by their own ignorance, for they should not go into an organization that is not truly co-operative and nobody controls a co-operative but themselves.

As the great majority of farmers is yet far from having the right conception of co-operative marketing and do not accept it naturally as a part of their business, they have to be persuaded to support it by being shown the advantages. The claim that it is wrong to urge farmers to co-operate in marketing, that all farmers should be left to their own initiative in the matter and be governed by their own limited knowledge and narrow views, is about as sensible as to urge that it is wrong to teach the value of silos or the advantages of growing alfalfa. To condemn educational propaganda to persuade farmers to co-operate is no more reasonable than it would be to condemn Samuel Adams and Patrick Henry for urging their fellow colonists to support the principles of self-government.

The Real Issue

The real issue now, however, is the greatly differing views as to what can be accomplished by co-operative marketing. As almost every step taken so far has had to be forced by the farmer supporters against indifference, and even opposition of many educational influences, these early workers in the movement have, in a way, been compelled to put the proposition in as strong a light as possible. The first co-operative live stock shipping associations were started in Minnesota and Wisconsin in 1908 by farmer enthusiasts without having the support of either the farm papers or the agricultural economists. In 1921 some of the educational leaders who had by that time become strong supporters of co-operative shipping were unwilling to join with some of the foremost boosters among the farmers in a statement that the next logical step was to unite the live stock shipping association into terminal co-operative selling associations. In that same year, however, the leaders in the shipping associations in Wisconsin and Minnesota took the first step in that direction, and by 1922 such co-operative selling agencies became established institutions in fourteen of the largest live stock markets.

Dangers of Conservatism

Now, since the doctrine of co-operative marketing has become popular and very few have the temerity of coming out in open opposition, there is still a fight between the very optimistic supporters of farmer controlled marketing organizations and those who are very much inclined to conservatism. There is a danger that the very conservative minded, although they are professed supporters of co-operation in marketing farm products, maybe so impressed with the need of counteracting what they consider the mistaken doctrine of some of the honest enthusiasts as well as what doubtless is, sometimes, false doctrine of self-seeking propagandists, that they devote much less effort to showing what can be done than in proving what they think cannot be done. Farmers are sufficiently indifferent and pessimistic on the whole proposition now and when difficulties are multiplied and enlarged and possible advantages minimized, it does not help the movement.

Control of Marketing Not Price Fixing

They do not seem to realize that there is much control of marketing now, though not from the farmer's side. They talk about orderly marketing, forgetting that farmers can do little or nothing toward establishing orderly marketing in their interest without some control of marketing. A doctrine much stressed recently is that prices of farm products are low on account of overproduction and that can not be remedied excepting by prices going so low that a considerable number of farmers will go out of the farming business. Those who proclaim that view seem to fail to see that, according to their own doctrine, prices must stay sufficiently low to keep these farmers out of the business.

President Slocum of the New York Dairymen's League says: "Our

(Continued on page 656)



ATTRACTIVE FARM HOME OF GEORGE ELLIOTT, INDIANA



GRADE HERD OF JERSEY CATTLE ON FARM OF GEORGE ELLIOTT

Mr. Elliott has been testing his cows for years. From the first 14 cows he bought only two tested up to his minimum standard and were worth keeping, from the next seven he kept three. He now has a pure-bred bull from a 581-pound cow to head his herd and he keeps about four out of every five heifers from his highest testing cows. He has one grade cow of exceptional merit with a monthly record of 46 pounds milk daily that tested 5% fat. Five of the cows that are now making good in the herd are her daughters, four of them her granddaughters, and two are great granddaughters. One of her heifers tests 7% fat. Mr. Elliott said: "If that one cow had been a pure-bred when I bought her nine years ago she would have easily made me $5,000 instead of $2,000 during the nine years."

Boosting the Income from the Dairy Farm

F. G. MEINT, NEW YORK

THE milk producer sometimes cannot escape from the penalties visited upon other one crop farming systems. Some dairymen of New York State are learning to enjoy the benefits of diversified farming, adopting some new lines.

The counties of the "southern tier" in New York State and of the northern sections of Pennsylvania have a natural center in the rapidly growing city of Binghamton, and its neighboring shoe manufacturing towns of Johnson City and Endicott. Binghamton has a population of about 74,000, and the smaller towns have about 6,000 between them. Business has been and is thriving in these towns because there is a spirit of unusual co-operation between these city residents and the people of the surrounding territories which feed them.

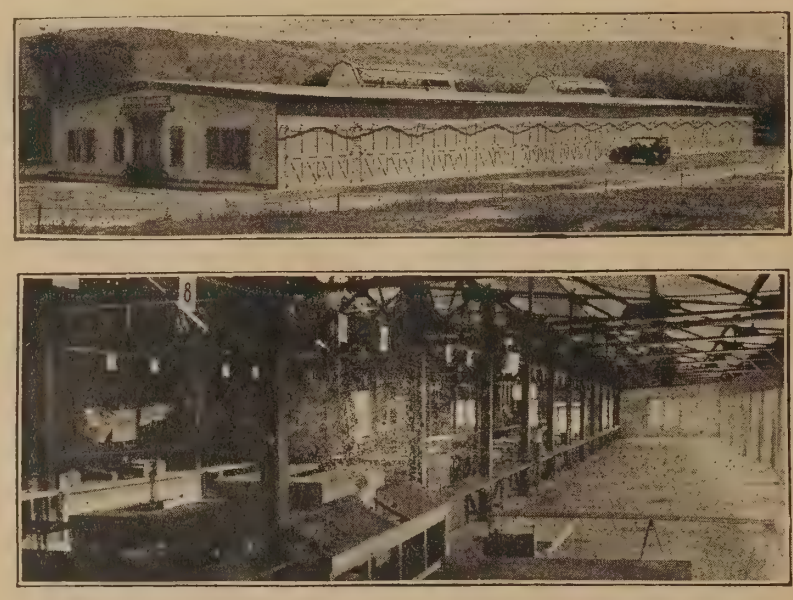
"Community service—a town and country partnership," is their motto, and the form which this co-operation takes is found in the shape of three of the finest public markets in the East.

Formerly this was a food growing section, excepting so far as the production of milk was concerned. There are 320 food stores in the larger city alone, and 110 milk wagons. Too many milk routes, an error that has not yet been eliminated. Cheaper food and fresher food was wanted by the people. They believed that much of it could and should be produced nearby, other than the milk, potatoes, and cabbage of former years.

So in 1917 George F. Johnson, wealthy and philanthropic shoe manufacturer, started a public market for the benefit of his workers. On the opening day there were 1,000 buyers on the market and but 15 loads of food products. Mr. Johnson had his market master give each farmer a new $2 bill to encourage their return, and the promise of every day they would bring a load. This encouraged the farmers to keep coming with what vegetables and other things they had and soon they had extended the list of crops grown to include all that could profitably be grown in the section. They saw its possibilities and there was no need of a bonus to keep up their interest.

About this time Binghamton started a curb market, and its master, John L. Costello, who had for years been a milk inspector for the city and knew the dairymen by their first names, began to ask, "Why do you wait for your money a month and a half all the time? You could just as well get some extra money right in your fist every week if you'd grow some stuff for the market."

Last month there were 933 farmers on this market alone, and 325 on the Johnson City and the Endicott markets. The two latter did a business of about $95,000 in August and of $82,000 in September. Binghamton does considerably more than both of the smaller ones. Had it not been for these markets very little of this cash would ever have come into the hands of these farmers.



EXTERIOR AND INTERIOR OF PUBLIC MARKET AT BINGHAMTON, N. Y.

Mr. Johnson has recently presented each town with fine, new, closed market buildings with large sites so that any overflow that may occur in a generation or so may be taken care of. The buildings are of steel construction with cement floors and are not so expensive but that any city could and should have one.

Everything that can be grown on an eastern farm is sold on these markets on three days each week from 9 a. m. until noon. Dealers are not permitted to enter the market to sell anything that a farmer can grow in this section, thus shutting off destructive competition. All sales must be retail sales until 10 a. m. After that farmers may sell to dealers if they like and on their own terms, providing they keep within the maximum market prices that are posted on the bulletin board for the day. These prices are advertised in the papers of the day preceding each sale. Producers may sell as much under these prices as they like but not over. The prices that usually prevail are about half way between the retail and wholesale markets of the section.

No farmer is charged anything for the privilege of coming into the market. Neither is there any charge to consumers. The City Board of Health and Public Safety furnishes three (meat, milk, and sanitary) inspectors and a caretaker for the market. The business grows each month, both in interest shown by both growers and consumers and in actual receipts, demonstrating that the principles governing the markets are sound.

The farmers are most enthusiastic as it gives them a fair cash return for labor. For instance, last October the writer saw producers drive in from 40 to 50 miles away with loads of potatoes for which they received $1 a bushel, and cabbage which they sold for 4 cents a head. At the local shipping points in the district potatoes were selling as low as 40 cents a bushel and cabbage $6 a ton.

The farmers' wives especially appreciate this opportunity to realize a little cash for their efforts and the quantities of pies, cakes, cookies, bread, doughnuts, jams, jellies, marmalades, flowers, potted plants, bulbs, berries, and hand-made articles changing hands at attractive but reasonable prices, were huge.

The feeling between producers and consumers is a fine one. The market masters, J. L. Costello, of the Binghamton market, John Patterson of the Johnson City market, and Mr. Goodenough of the Endicott market are extraordinarily popular and efficient.

Dr. Ruby Green Smith of the New York State College recently pronounced these markets the finest she has ever seen excepting Seattle's and she has had experience in helping to organize 43 markets in various cities of the country. She believes that in all cases where a market of this sort is to be attempted that a careful survey should be taken of those who would be willing to grow food and of those who would be willing to buy food. Given right conditions she commends the public market as a very essential and highly valuable solution of the too low income on the farm and the too high cost of living in the city.

Efficiency Imperative When Feeds Are High in Price

Address By F. B. Morrison Before Wisconsin Dairymen's Association

WHEN concentrates are high in price and milk tends to be relatively low, farmers are naturally eager to cut down their cost of production in any way possible. Therefore many are now debating as to how they can feed their cows so as to cut down their cost of milk production this winter. Some are attempting to do this by feeding but little grain or other concentrates, and letting the cows fill up on all the roughage they will eat. Will this cut down the cost of milk production or not?

This fall and winter is surely no time to waste concentrates. All will agree to that. However, dairymen must be careful not to be "penny wise" and "pound foolish".

We must remember that a good dairy cow when well fed needs about half her feed to maintain her body. If the amount of feed for a good dairy cow is seriously reduced in an attempt to cut down the cost of milk production, the effect will be just opposite to what is desired. As is shown in the figure, if a good cow is fed a three-fourths ration, she still needs just as much feed as ever to maintain her body and can use only one-third of what she eats to make milk.

Filling a cow up on roughage, even good roughage, and giving her little or no grain or other concentrates has just this effect. She gets plenty of *pounds of feed*, but each pound of roughage supplies much less *digestible nutrients*, or real food value, than a pound of concentrates. Hence, the cow gets full before she can secure enough nutrients to produce a good flow of milk. If a cow is of beefy tendency, it is easy to overfeed her.

Farmers who have efficient cows in fair flesh which are producing a good flow of milk sometimes are deluded when they cut down on the amount of concentrates they are feeding. The cows seem to give nearly as much milk on the reduced allowance as they did before, and the farmer feels that he is saving considerable money. It is true that a good dairy cow fed insufficiently will continue for some time to try and give a good flow of milk, for her maternal instinct forces her to do this. However, she can do this only by drawing on her body and running down in flesh. Soon her production will be seriously reduced.

Under conditions like the present it would seem best for Wisconsin farmers to continue to feed their *good* cows a fair, but not excessive, amount of concentrates, so as to maintain a good production. With ordinary kinds of roughage we advise adhering quite closely to the usual thumb rules of feeding concentrates with all the choice alfalfa or clover hay and corn silage the cows will eat twice a day. It may be most economical to reduce the amount of grain or other concentrates about one pound below the amount required by the thumb rules.

Even under normal conditions poor dairy cows are "boarders". Now they are serious liabilities. They had better be sold for whatever can be secured for them instead of feeding them at a loss all winter.

Our advice to farmers is therefore: (1) Cull your herd and get rid of the boarders; (2) feed your efficient cows good rations; (3) do a little figuring and try and feed as economical a ration as possible. In case of doubt as to what feeds to use, call on your county agent or the college of agriculture for advice, stating specifically what feeds you have, the local prices for purchased feeds, the kind of cows you have, and their average production. All these facts are needed to give intelligent advice.

Concentrate Mixtures for Winter of 1924-25

To feed with plenty of clover hay and corn silage or roots: (1) Ground barley or rye, 300 lbs.; ground oats, 300 lbs.; wheat bran, 300 lbs.; linseed meal, 100 lbs. (2) Ground corn, 300 lbs.; ground oats, 300 lbs.; wheat bran, 275 lbs.; linseed meal, 125 lbs.

To feed with plenty of alfalfa or soy bean hay and corn silage or roots: (1) Ground corn, 500 lbs.; ground oats, 500 lbs. (2) Ground barley or rye, 500 lbs.; ground oats, 500 lbs. (3) Ground corn, 600 lbs.; wheat bran, 400 lbs.

To feed with timothy hay and corn silage or roots: (1) Ground barley or rye, 250 lbs.; ground oats, 250 lbs.; wheat bran, 200 lbs.; linseed meal, 300 lbs. (2) Ground corn, 200 lbs.; ground oats, 200 lbs.; wheat bran, 300 lbs.; linseed meal, 300 lbs.

To feed with mixed hay (if half clover and half timothy) and corn silage or roots: (1) Ground barley or rye, 275 lbs.; ground oats, 275 lbs.; wheat bran, 250 lbs.; linseed meal, 200 lbs. (2) Ground corn, 250 lbs.; ground oats, 250 lbs.; wheat bran, 285 lbs.; linseed meal, 215 lbs.

A Good Alfalfa Tour

ONE of the best ways of telling the story of alfalfa to farmers is to get them to climb over the fence and get their shoes mixed up with what the other fellow is doing. Telling the story of alfalfa so it will stick and eventually swell the bank account of the audience is the important thing, though sometimes met with difficulties. One important thing is for the salesman to make contact with his prospect. Alfalfa will sell itself if once a good contact is made.

On July 17 and 18, 1924, Harry Warner and F. G. Churchill of the soils and farm crops agricultural extension service, came down to Jackson County, Iowa, to tour with farmers who could be induced to take a day off. One small community tour was made on July 17 and one more extended tour was made on July 18. A program of considerable variety had been previously arranged and announced. Four county agents from nearby counties and some 150 farmers, most of whom were local, made up a very enthusiastic audience.

One of the lessons learned from the Glew farm was that of converting a somewhat rock strewn and heretofore useless hog lot of 5 acres into a ..eful and successful alfalfa producer.

On the Kier farm, the Michigan home-made lime spreader was demonstrated and following this was the use of a spring tooth harrow for cultivating alfalfa. The men were also shown the difference in stand caused by the use of northwestern grown seed of known origin and seed of unknown origin. They were also shown the effect of late and close to the ground cutting.

After leaving the Kier farm the tour took the men over into Clinton County to the Coverdale farm where, perhaps, the best field of sweet clover pasture that any of the men had ever seen, was shown. Certainly, after this none of the men would ever again lend a sympathetic ear to the one who says that sweet clover does not make good pasture and that cattle will not eat it.



FROM BARREN HOG LOT TO FINE ALFALFA
Owner and tenant talk it over on the H. M. Glew Farm, Iowa



A LIMESTONE PULVERIZER IN ACTION ON THE DAY OF THE TOUR

In the afternoon, while stopping first at the Beaton Bros. farm, some one asked one of the boys what an acre of their 5-year-old field of Grimm was worth.

"It depends on the market for cattle," said Mr. Beaton thoughtfully, but added, "it will make market toppers any time."

Jack Martin took great delight in calling the attention of the crowd to the fact that his barns were already full and they were stacking out of doors and it was only the middle of July.

At Hurstville the men and women were very much interested in the A. A. Hurst pulverizer. While there, Will Hurst started the machine. Perhaps 20 farmers crowded each other to get the "feel" of the newly pulverized limestone. Mr. Hurst's farm also exhibited a very fine 14-acre field of alfalfa.

The last stop was made at the Clyde Hamilton farm. Two loads of lime rock pulled in to the field where a pulverizer stood ready, just as the first car of the 28 arrived. As usually happens, a few cars got off the road going over but by the time every one was there, Fred Gisel, owner of the pulverizer, was shoveling away the fine uniform pulverized product. The machine worked perfectly and no one left until the last rock had been reduced to powder.

The program was concluded with a trip to another part of Mr. Hamilton's farm where applications of lime, lime and phosphorus, phosphorus and no treatment on oats and clover seeding had been made. The comparisons were very noticeably in favor of the two plots receiving phosphorus.

Mr. Warner and Mr. Churchill said, "We are satisfied with the program and the results."

The crowd said, "There should have been 500 farmers with us today instead of 150, but otherwise we are satisfied."

National Milk Producers Meet

IN our issue of November 21 we published excerpts from several addresses delivered at the annual meeting of the National Milk Producers' Federation and this week we publish several more. We are indebted to C. W. Holman, secretary of the organization, for liberal extracts of the several papers presented.

Dairy leaders, representing 300,000 organized farmers, heard John D. Miller, president of the National Co-operative Milk Producers' Federation, denounce the open and disguised enemies of co-operative marketing and point out the pitfalls that come from too much dependence on legislative enactment, at the opening of the eighth annual convention of the federation held at Detroit, Mich., November 14—15.

Judge Miller in opening the convention said that the 28 member associations are self-help organizations; that they are the result of years of effort and sacrifice, and that they are here to stay. He warned members to beware of the change of tactics used by opponents of co-operative marketing, saying that powerful opposition formerly fighting in the open now gives a loudly professed approval of co-operative marketing and at the same time always tries to have a voice in the control of the organization.

Perhaps one of the most important points made by Mr. Miller was when he called attention to the fact that most of our agricultural ills are economic rather than statutory, and as such must be approached from the economic standpoint. He indicated that we never will get anywhere as long as we try to solve our problems by legislation.

If commodities are bought and sold some one must name a price. All that the farmer asks for is to have an influential voice in determining what price dictated by the law of supply and demand. The law of supply and demand must be applied at the right time and the right place.

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"I will never be satisfied until New York City people consume an average of a quart of milk a day," said Royal S. Copeland, former health commissioner of the city of New York, at the close of the federation program.

While Mr. Copeland was health commissioner the consumption of milk in New York City was increased from 1,800,000 quarts to 3,000,000 quarts per day. While this was a good thing for dairymen it was also a good thing for the health of the people of the city.

Mr. Copeland's estimate of the value of milk to the human family can best be stated in his own words as follows: "The standard of civilization, as I view it, is fixed by the degree of consumption of fluid milk."

Because of the fact that so many of our people now live in the great cities and because milk affords such a splendid place for germs to thrive unless properly cared for, the distribution of milk has become a huge problem. As evidence that the dairyman is trying to do his part in producing the best milk possible, Mr. Copeland said that while the New York City regulations permitted the selling of milk for average purposes which contains not to exceed 100,000 bacteria per cubic centimeter, large quantities of milk are being brought to the city for sale which contain under 500 bacteria per cubic centimeter. There is hardly a water supply bragged about for its purity where the bacterial count is not in excess of this.

It has taken some time to bring about understanding between the producers and the Health Commission. Producers are coming to realize that the regulations are not imposed simply to be disagreeable but for the best interests of all concerned.

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Harry Hartke, vice-president of the Pure Milk Association of Cincinnati, told of the strenuous fight producers have had to make to gain control of the fluid milk distribution of that city. Arrogance and hostility on the part of the dealers forced producers into the retail market.

The Co-operative Pure Milk Association as a bargaining association was never able to secure satisfactory co-operation from milk dealers. The dealers tried to discredit co-operative marketing by raising and using a large slush fund.

Two things in connection with the preparation for entering the retail market stand out as important. The committee made a thorough study of many co-operative associations and interviewed eminent students of co-operative marketing before a plan was drawn and presented. In presenting this plan to producers those in charge did not try to over-sell it.

After just passing through a strenuous six months of price war the membership is larger and the morale is excellent.

In order to discredit the association and co-operative marketing, the dealers have paid non-pooling farmers 45 cents per hundred more than they could afford to pay and more than the co-operative did pay during that period, but in spite of this the membership has stood solid.

In closing his talk, Mr. Hartke said: "We now have over 50 per cent of the fluid milk and over 70 per cent of the ice cream business in Cincinnati and surrounding territory. A very bitter feeling has been engendered by unscrupulous opposition but eventually the respectable dealers will be buying our product."

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R. W. Strong, secretary of the Ohio Farmers' Co-operative Milk Association, in order to get clearly before the convention the fight that his association has made, went back to 1915 when the board of directors of the old Ohio Farmers' Co-operative Milk Company was arrested in the dead of night and locked up in the Cuyuhoga County jail without bail, being charged with violating the State Anti-trust Act. In the sensational trial that followed these men were found not guilty. The present association is a reorganization of the old company.

Immediately after reorganization the association had difficulty because of the Freeman—Collister bill passed by the Ohio legislature which placed the trucks under the Utilities Commission granting them a franchise over the route. Immediately the association truck men became indepen-

(Continued on page 653)

Aberdeen Centralized Creamery

H. J. BOYTS, SOUTH DAKOTA

THE profits made by the farmers in delivering their cream to a co-operative plant at Aberdeen, South Dakota, have built the best equipped creamery in the state and undoubtedly one of the very best in the whole dairy region, besides leaving a nice surplus.

The Equity Union Creamery, a co-operative centralized plant at Aberdeen, cost $175,000 when it was built in 1920. More than 4,000 farmers have benefited by pooling their cream and milk in this plant, which is now doing a million dollars worth of business a year.

This plant is the first Co-operative Centralized Creamery to be established in this country and it is a proven success. It reaches out a hundred miles in all directions from Aberdeen to get cream from its members. It is true that some members are too far from the creamery and that it makes it necessary to churn two grades of butter. However, as the dairy industry grows in northern South Dakota, other plants can be built. This, with the greatly improved transportation facilities, will make it possible to furnish the best product at all times for the markets. The foundation is laid for centralized selling for the farmers of northern South Dakota. The first 10 years have seen not only a good plant constructed, but a stronger and better market has been established. In fact, the local station price has been improved from five to six cents per pound for butterfat.

The slogan adopted by the Equity Union Creamery is accurate weights, correct tests, and prompt service. The response from the farmers leads one to think that the motto is put into practice. The product has made a reputation on the Chicago market.

Ice cream and egg departments have been added, recently, which is going to give the plant a big opportunity for growth and service to its members. A total of 11,525,000 lbs. of butter has been sold by the company, or about a car and a half per week.

The Equity Union Creamery found its birth in the fertile minds of a few men at a small meeting at Mott, North Dakota, in 1914. On July 29, 1914, a special creamery meeting was held in Aberdeen, when a set of by-laws was formulated and adopted. The organization was chartered the next year and on February 16, 1916, the first churning of butter was made in the original plant. This co-operative, like a great many, had a hard struggle to get under way, but with persistent effort of the men who had the vision of co-operation, the venture has made good. How well the first directors had planned is shown by the fact that



EQUITY UNION CREAMERY, ABERDEEN, SOUTH DAKOTA

they have almost unanimously been chosen every year since to conduct the business affairs of the institution.

One-half million pounds of butter were made the first year. By the latter part of 1917 the business had outgrown the original building, only built 18 months previous. An addition to the first building was then built, which was larger than the original building. It was needed for the volume of business doubled. The Equity brand had become known and the farmers continued to join.

In a little over two years later, business had grown to such an extent that the directors laid plans for the new plant. F. M. Norum, the present manager, was in charge at that time, and the achievement of constructing the fine, fully equipped plant was under his direction. Again the judgment of the leaders in this plant was justified, for the business has almost doubled again. Upwards of 2,000,000 pounds of butter will be churned this year, and there is every reason to believe that this company will continue to grow.

A centralized plant of this nature has these advantages to offer the average farmer:

1. Direct voice in its operations.
2. Can standardize the products of a large community and develop a definite brand.
3. Large volume with efficient management lowers the costs of distribution.
4. Opportunity for price improvement is afforded.
5. Chance to advertise products, as a large volume cuts the cost per farm to a very small amount.

Ma Goes To The Dairy Show

ELSA L. CLARK, OHIO

THIS year I decided to attend the Dairy Show with Pa. He was going to drive through in the flivver, so I brushed up my last year's hat and year-before-last dress and other things I thought I would need and off we went. It happened that I guessed wrong and left things I neded most and took things I didn't need at all.

Well, we got a good early start. After riding a ways it was perfectly evident to me that no tourist need ever starve to death. About every half mile some farmer had a stand where one could buy anything from a "hot-dog" to an onion. We passed through a town that had some wonderful hat bargains in a window. I asked Pa if he wouldn't stop a minute, but he said, "I should say not; we haven't got the time."

I knew I'd never see bargains like that again, but on we had to go. Well, out of town a little way Pa suddenly slaps his knee and says, "By golly, it's only about three miles off the highway where Pete Jones has that high record cow".

"Oh, but we haven't time to go to see her," I says, but he couldn't hear me.

So we went the three miles out of our way and he went to the barn to look at beautiful Polyaggie, or whatever her name was. Pa and Pete talked and then he called for me to come and see her, too. I had on new shoes and the path was all mud, so of course I was glad to go. After getting all mud we went up to his house. His wife was canning about three things at once and I thought that her smile was a trifle forced. Pete started asking us if we couldn't stay for dinner.

"Oh yes, do," she says.

Now Pa is one of these innocent creatures and he was just starting to accept but I had seen the look she gave Pete and hastily declined. Why that look said just as plain as day, "You simpleton, here I am in the middle of canning, and there isn't a thing in the house to eat".

So we went on and ate at a place along the road. It was the kind of a place where the man welcomed us in and took our order. Then the wife fixed it and waited on us while the man read the paper. When we had finished the man took our money—and still they call us the weaker sex!

The rest of the day I continued ruining my eyes watching for road signs, policemen, and licenses. If I didn't see what state each passing automobile came from, Pa felt hurt. We counted twenty-five different states and then I rebelled—who wants to spend the day looking at automobile licenses! We passed a wagon load of chickens crated for market.

"My," I says, "that'll bring enough money to buy that man's wife a fur coat."

"Yes," says pa, "it would, but it won't."

My nerves got a trifle on edge by that night. Pa is one of these men that smokes a pipe while he drives, and when he talks he not only leaves it in his mouth but talks straight ahead to the windshield. Then, when I can't hear what he says he accuses me of being deaf. However, I felt better in the morning after a real country breakfast at a farmhouse. It consisted of cold storage eggs, weak coffee, and ready to serve breakfast food.

It was raining when we went through the next place which was a college town. None of the college boys were wearing hats or caps. Pa said he guessed that they had so much grease on their hair that it just shed the water. The country schools we passed didn't look much like the kind I used to attend. They were large, new, and well kept. Nearly every one had an automobile beside it that "Teacher" came in and many of the children roller skated to school along the concrete road.

We stayed that night at one of Pa's uncles. As we were finishing supper he asked us to please place our toothpicks inside our napkins so that we wouldn't need clean ones for breakfast. We listened to his radio that night but Pa didn't like it because the announcer kept waking him up.

We finally got to Milwaukee where the Dairy Show was held. They have little humps in the street that you're supposed to drive around. Pa drove on the wrong side of one of these and up comes a policeman right away. Now a policeman is the one person under the sun that Pa doesn't argue with. So we listened to what he had to say (which was a lot) and rode on. About two blocks farther they had some new automatic signals, the likes of which we had never seen before. They were on the side of the street instead of in the middle, so Pa drove calmly past and up came another policeman. By that time Pa had decided that this was no place for him, but at last we reached the grounds where the show was to be.

The first building we went through was full of booths where they gave away samples of dairy products. I ate so many samples that I felt as if I couldn't look a cow in the face again.

"This is fine," said Pa, "we won't have to buy any supper. I've had milk, condensed milk, cottage cheese, Swiss cheese, Brick cheese, and goodness only knows what else."

"I'd like some ice cream though," says I. So we went to a place where it was being sold. Pa reads aloud all of the menu of Honeymoon Specials, Lover's Dreams, Sweetheart's Delights, Fudge Loves, Fruit Smash, and lots of others, and then says, "I'll take vanilla ice cream".

The exhibits were fine. I learned a lot of new recipes, got a lot of free literature, and saw a lot of things I'd like to have.

The second day Pa went to the show and I walked through some of the stores. There was a little picture in one window that I liked pretty well, so I asked the clerk how much it was. "Seventy-five," says she kinda languid like, patting her boyish bob.

"All right," says I, "I'll take it."

I gave her a dollar bill and she looks at me sort of pityingly and says, "That picture is seventy-five dollahs".

"Oh," says I and sort of melted out of the store. After looking at several things I decided that the ten-cent store was a good place to do my shopping.

Pa came back in a fine humor. For once he and the judge had agreed on cattle judging. So he took me to a theatre. I was tired but I knew that if the judge didn't pick Pa's choice for grand champion next day that there'd be no invitation for me then, so I said that I would like to go.

The next day we both went out to the show. I learned a lot of things: What the cow population of each state was, how to make a cow sell herself, what feeds make dairying a gold mine, why some folks milk cows for exercise only, and, as Jake Thompson, our auctioneer says, other things too numerous to mention. Some of the lady demonstrators had all their foods cut up into fancy shapes. I could just see myself on wash day or in threshing time cutting up bread, peppers, cheese, etc., into little circles and triangles—but anyway they looked nice. I listened to "cow talk" all the rest of the day and rediscovered that dairymen are men with only one topic of conversation.

We started for home that night and I thought I'd had a good enough time to want to go to the Dairy Show next year.

Sociable Sybil—Peerless Dairy Cow

F. W. DOHERTY, NEW YORK

FOLLOWING one of the most spectacular show ring careers in dairy history, Sociable Sybil 478362 has completed an official test which singles her out as a master product of the breeders' art—the perfect dairy animal, faultless in form and remarkable for production.

Even before this test was started, over a year ago, it was felt that the Babcock test and the milk scales would fulfill the rich promise of great production that has always been an outstanding character of this superb cow, and the final figures of the test show that the great expectations based on dairy type have been more than justified by her peformance at the pail.

Sybil was 4 years and 11 months of age when she was started on this test and in the following 365 days she produced 855.16 lbs. of butterfat and 15,334 lbs. of milk. Her milk averaged 5.58 per cent fat for this period.

The record of the test also shows production maintained at a high rate to the last day of the year. In every month more than 60 lbs. of fat were recorded, while for six months production exceeded 70 lbs. per month. The highest month showed 81.55 lbs. of fat produced.



SOCIABLE SYBIL—PERLESS DAIRY COW

Beginning at 4 years and 11 months Sociable Sybil produced in the following 365 days 15,334 pounds milk containing 855.16 pounds fat. The butterfat percentage averaged 5.58 for the test period.

The best part of the story remains to be told, however, for Sybil is believed to be safely in calf and is expected to meet the calving requirements in Class AA, in which case she will qualify for a Medal of Merit—the highest medal award offered by the American Jersey Cattle Club. If she wins this coveted medal it will be a most useful addition to the long list of honors that she has already won in the show ring. But in any case she is the highest testing National Grand Champion cow of the breed.

Most breeders will remember, I think, that Sociable Sybil has won no less than seventeen grand championships, including that of the National Dairy Show of 1923. This year she was shown at the Eastern States Exposition, just after her year's test was completed. She was still milking forty pounds, and although she had been in her working clothes for better than a year she had no serious competition in the Register of Merit class, and was awarded first prize.

A word about Sybil's history may be interesting at this point. She was bred on the Island of Jersey and was imported by W. R. Spann & Sons early in 1920. Her sire is the $65,000 bull, Sybil's Gamboge 174663. This remarkable animal is a silver medal winner, and he already has 34 daughters and 6 sons in the Register of Merit. He is a son of Imp. Gamboge Royal Majesty 149864, and a grandson of Imported Oxford Majesty 134090.

Sociable Sybil is a daughter of Eminent's Jersey Skater 534140, a cow that was sired by Imp. Combination's Premier 150715. This outstanding bull was purchased last summer by a Texas breeder for $13,500.

In June, 1920, Sybil was offered at auction in a lot of three heifers at the Spann sale and was purchased by L. O. Stevenson for Ogden Mills, owner of Inderkill Farms, New York, for $2,200. It is interesting to note here that she was the last heifer left in the ring. Since that time she has had a remarkable career in the show ring, and has come to be regarded by many as the greatest living cow of the breed.

It is not hard to imagine the satisfaction that Sociable Sybil has brought to those connected with Inderkill Farms by her splendid achievement while subject to the rigid official test, but Sybil is such a well known figure in the Jersey and dairy world that her latest triumph will be a source of gratification to everyone connected with the breed in any way.

Yeast For Calves

Under the direction of Dr. C. H. Eckles of the Dairy Department of the Minnesota College of Agriculture, an experiment was carried on with calves to determine the supplementary feeding value of yeast. Several groups of calves were used to determine whether yeast would produce faster growth, develop stronger calves, and otherwise be advantageous to use. The conclusions drawn from the experiment are as follows:

1. The addition of vitamin B in the form of dried yeast to the rations ordinarily fed on dairy farms did not increase the rate of growth of calves from the age of 20 to 180 days.

2. No definite effect was observed on the health of calves as a result of supplementing their rations with dried yeast.



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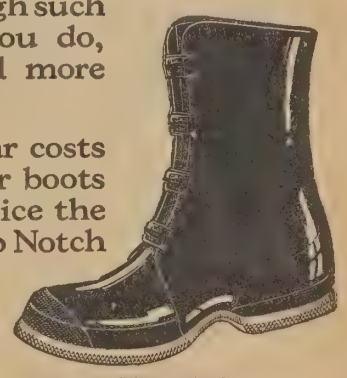
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THE shoe illustrated herewith is the Top Notch four-buckle Cornbelt, an all-rubber arctic that is especially built to give long wear. Cornbelts are made in all sizes for men, boys and youths; as well as a similar article called "Snoshu"—an all-rubber gaiter for women, misses and children.

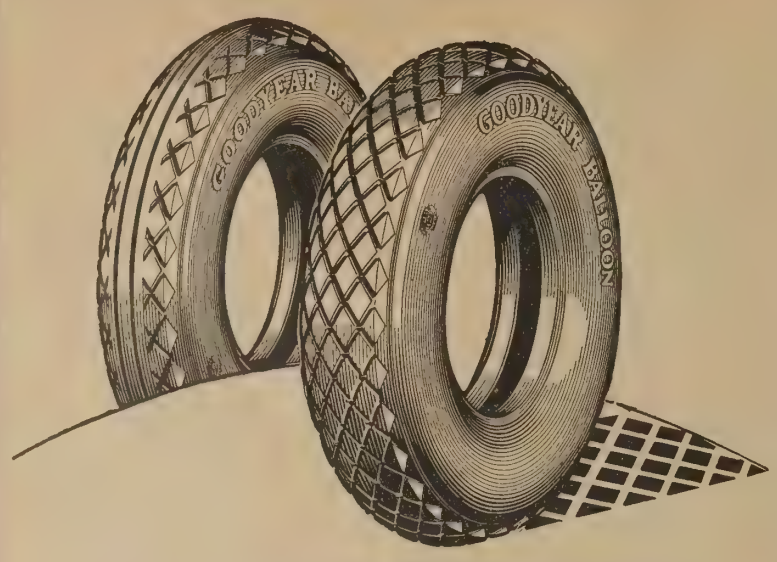
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Some Washington Holstein Records

TO win high honors for butterfat production among 30,634 cows in 45 cow testing associations in nine western states, even though for only one month, is an achievement worth recording. During the month of July two cows from the Washington State Holstein herd at the Western State Hospital won the above distinction because of their performance at the pail.

The highest honor went to Donnybrook Cornucopia Clothilde that produced 3,146 lbs. milk and 116.5 lbs. fat for the month. She has an official record of 766 lbs. fat in 305 days which at that time made her the champion butter cow for the state. This honor has since been won by another cow of this herd, Florence Pontiac of Greenbank, who produced 779.08 lbs. fat in 305 days.

The second highest producing cow among these thirty thousand and more western cows is Edith De Kol Model that produced 2,275 lbs. of milk and 104.6 lbs. fat during July.

The Western State Hospital herd also ranked second for best herd average of butterfat in herds of over 15 cows, the average being 54.7 lbs. fat on a herd of 70 cows.

The new Washington state champion butter cow, Florence Pontiac of Greenbank, with 24,047.7 lbs. of milk and 779.08 lbs. fat in 305 days, replaces Hollywood Lilith Piebe De Kol, owned by Thomas J. Owens, and whose record was 22,258.7 lbs. milk and 772 lbs. fat in 305 days.

Another cow of the Western State Hospital herd, Steilacoom Fayne Cascade, has a rather remarkable record when considering the fact that her total production came from the two rear udder quarters. For some reason the fore quarters never developed, at least to active milk production. She has just made a 365-day record of 26,789.9 lbs. milk and 819.03 lbs. butterfat at four years of age. She is a daughter of Sir Fayne De Kol Inka and out of Cascade Jeannie who has a 7-day record of 22.68 lbs. fat at four years of age.



THIS IS STEILACOOM FAYNE CASCADE, WHO PRODUCED 26,789.9 LBS. OF MILK AND 819.03 LBS. OF BUTTERFAT IN 365 DAYS AND ALL FROM THE REAR HALF OF HER UDDER

She is owned by the State of Washington and is a part of the Western State Hospital Herd.



FLORENCE PONTIAC OF GREENBANK, WASHINGTON'S NEW CHAMPION BUTTER COW

She produced 24,047.7 pounds of milk and 779.08 pounds fat in 305 days in the Western State Hospital Herd, Washington.

County Milk Conference Committee

HOARD'S DAIRYMAN:—Following an adjournment through the several summer months, the first monthly fall meeting of the Montgomery County, New York, Milk Conference Committee, was held on October 29. It afforded an interesting and profitable program for about 125 dairymen who assembled from all parts of the county. The meeting was called to order by John Ingersoll, who briefly outlined the original purpose of why the committee was chosen. Mr. Ingersoll pointed out the apparent need of all dairymen gaining a clearer conception of the marketing problem, which would better prepare for greater harmony among producers and ultimately stimulate a greater directing force for constructive action in marketing fluid milk.

Frank Bauder, member of the Committee of Fifteen and who has attended regularly the meetings of this body, gave a comprehensive report of the work of the committee. He stated that the Committee of Fifteen was striving for closer harmony between the several groups and to

unify dairy interests in New York State. Considerable stress was placed upon the business side of approaching the problem with greater unison between the groups and that time must necessarily be allowed for attaining results. To encourage the production of a full and regular supply of milk for the markets available to producers in the terrtory, to encourage the consumption of milk more generally, and to stabilize the dairy industry to the fullest degree for the farmers in the territory, were the main features of Mr. Bauder's report. He also pointed out that a solution of the problem was not up to a few of the dairymen in every section, but rather to every dairyman throughout the state. Concerted action is needed, not of the sensational type but along sound, farseeing lines.

C. E. Sniffen, statistician and market reporter for the Dairymen's League Co-operative, was next introduced by the chairman. By the use of charts Mr. Sniffen presented graphically some of the many intricate phases of the milk marketing problem in New York City. He stated that so far as New York City affords a market, all milk of classes number one and two, also cream, rightly belong to the producers in this territory, and that outside milk should never be received except in case of an actual shortage. Because milk is perishable and not readily transported over long distances, the present range of shipping distances is very apt to prevail.

The speaker next pointed out the two typical groups of venders of milk who largely control the milk after it leaves the producers. One group is the retailer who engages his milk very largely direct from the producers. Here little competition exists. The retail consumption is a very uniform factor throughout the year and the price to the consumer is very stable, without great fluctuation.

The peddler who comprises the second group is by far the greater in number. He does not operate country plants, but purchases milk largely through the wholesale dealers. This milk goes to the various trades like stores, restaurants, etc. And it is here where competition exists and where price cutting is carried out. The peddler is unconcerned with the price he is obliged to pay for his milk so long as he can hold his class of trade and make the desired margin of from a cent and upwards per quart. It is the dealings between the peddler and the stores where continuous competition exists.

On the whole, competition is based on the original price of milk and the factor of surplus is responsible in determining this price. But the producer is able to control this situation if he will only understand and realize his position as a collective body toward the whole.

As a suggestion of correcting some of these abuses, producers should not sell a greater amount of milk than their ability to furnish in the short season. A persistent and careful study must be made of the milk territory contributing to the large market centers. This will reveal a basis of getting at the factor of surplus. As far as determining what the surplus factor is in depressing the New York City market, figures taken of the state are not adequate without a careful survey of the amount of milk used in upstate centers, the milk used for cheese and butter, also all condensed and similar milk products.

The speaker presented a very interesting report of the many phases of the marketing of milk. Following this a very full discussion was entered into by the many who attended. Everybody felt that a clearer and sounder grasp of the marketing problem had been gained.

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Growing Alfalfa on Sand

HOARD'S DAIRYMAN:—With the help of lime and manure, alfalfa can grow on a poor sandy soil if that soil is well drained. This is the experience of Charles Mills of Iowa, one of the most successful legume growers in Linn County. To prove this assertion Mr. Mills can show a thick, even stand of alfalfa, with scarcely a bare spot in it, growing on a piece of land that never did raise a decent corn crop and that produced one of the poorest blue grass pastures in the township.

In fact, it was because Mr. Mills became disgusted with this land for pasture that he decided to break it up and try alfalfa. He is no novice at the legume business and has two other good fields. He has found that failure to apply lime means a disappointing stand and that manure is a great help. Fertilizer is supplied in large quantities by his herd of Holstein cattle and by a carload or two of steers that are fed out every winter. Over 400 loads of manure were hauled out last spring.

After a good application of manure and lime Mr. Mills sowed about twenty acres of this notoriously poor sand to alfalfa a year ago last June, with the result that he now has a field that men will go miles to see. The entire farm lies in a sandy, rolling section but has developed into a profitable property under this definite system of soil building.

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EDITORIAL COMMENT



SURPLUS AND CO-OPERATION

Every person in this country should appreciate that we should have some wheat in our bins, cotton in our store houses, meat, milk, butter, cheese, and eggs in storage in excess of our immediate demand. We can well profit by Joseph's experience, for we still have the "lean years" and the "fat years".

In speaking of a generous food supply and the effect of surplus on prices, former Governor Lowden of Illinois has stated:

"The purpose of co-operative marketing of farm products is not to defy the law of supply and demand, but only to make that law serve the farmer. We have too long permitted the bugaboo of surplus to depress unduly the price of the great staple products of the farm. The world has been producing wheat for some thousands of years. Since the time of Pharaoh, however, there has never at any given time been a sufficient quantity of wheat in existence to feed the world for more than a few months. Would we call mankind improvident if enough of wheat were always carried in storage to feed the world for a single year? If not, what shall we say of the system of marketing wheat by which a six months' supply is permitted to lower the price of that necessity of life below the cost to produce?"

FUTURE OF AGRICULTURE

Young men who have some doubts as to whether they should follow agriculture as a vocation need hesitate but little for fear farming will not be profitable in the future. Everything at present points to a favorable agricultural situation for many years to come.

We must remember we have no great fertile sections to be opened up to new settlers. After the Civil War, there were great tracts of fertile land in the Northwest awaiting the pioneer. There are no such lands today. The land that is brought under cultivation requires much labor and large expenditure of money before it can become productive. It should also be remembered that our population is rapidly increasing and each year more food is required to feed the people of the land. Again, the past three or four years many poor farms, those called marginal lands, have been deserted. Here, then, is a combination which should cause us to be encouraged regarding the future of agriculture.

Further, industries of the cities are increasing their activities and this means fewer men out of employment. When the labor is well employed and receives good wages, more farm products are demanded.

For these reasons we see a bright future for agriculture and especially for those who will do their work efficiently. We do not believe the man who does his work inefficiently and in a haphazard way can expect to succeed on the farm or anywhere else. If prices of farm products become high enough so that the most incompetent farmers can make a good living and perhaps some profit, it will mean a large increased production of agricultural products. We do not look for "boom" times, but we do expect the prices of agricultural products will be relatively higher than other commodities as compared to the year 1913.

THE AGRICULTURAL COMMISSION

President Coolidge has appointed an agricultural commission consisting of nine members: Ralph P. Merritt, president of the Sun Maid Raisin Growers of California; O. E. Bradfute, president of the American Farm Bureau Federation; Charles S. Barrett, president of the Farmers' Union; L. J. Tabor, president of the National Grange; Fred H. Bixby, president of the American Live Stock Association; W. C. Coffey, Dean of the Minnesota College of Agriculture; R. W. Thatcher, Director of the New York Experiment Station at Geneva; and W. M. Jardine, President of the Kansas Agricultural College. The chairman is former Governor Robert D. Carey of Wyoming.

Since the fall of prices of farm products in 1920, many suggestions have been made for bringing agriculture back to her proper relationship with other industries. Certain groups believe this can be done through federal and state legislation; others would have the government buy farm products and sell them to foreign nations; some have suggested that the government buy the surplus and dump it into the sea; some think co-operative marketing is the one thing that will save the farmer; and still others believe inefficient production regulated to the demand of the market. Suggestions and plans for aiding agriculture are so numerous, and many of them so faulty, that it was both fitting and wise that the President of the United States select a commission as he has and made up of men who thoroughly understand the agricultural situation of the country and who are in deep sympathy with its welfare.

In recent years there has been much talk of an agricultural program, for thinking men fully appreciate that agriculture is meeting a different situation now than it has in the past. Changes in agricultural practice and thinking must be made if it is to keep step with the progress of other industries. In the building of an agricultural program, many factors are to be considered and no one can hope for this commission to prepare a detailed program. It can call attention to the importance of diversification, of growing crops adapted to certain sections of the country, of producing more products locally, of efficient production, of the value of co-operative marketing, of adequate credit, of the necessity of leadership, of fertile soils, etc.

The agricultural commission has a big job in bringing together information concerning all the various activities of agriculture and then prepare a general plan by which we may unite for the purpose of building agriculture upon a sound and firm foundation. Every thinking man knows that the welfare of this nation depends upon a prosperous agriculture and that the people engaged in this industry must be adequately compensated for their work.

FARMER AND BUSINESS MAN

Two years ago the Board of Trade of Louisville, Ky., fostered the formation of what it termed the Kentucky Live Stock Improvement Association. This organization enlisted the interest of every industry that is directly or indirectly concerned regarding the welfare of the live stock development of that state. This included the city distributors of dairy products, the city and rural banks, the stockyards, all the various breed associations and their members. The organization has been active the past year and a report to us from Mr. C. Oscar Ewing states that definite progress has been made. The annual report of the secretary of the organization, Mr. R. W. Scearce, gives an outline of the character of work done and in brief it is as follows:

One hundred eighty-four bank visits; 54 counties visited; 115 breeders visited; 13 conferences attended; 25 meetings addressed, 1,500 attendance; 46 banks using live stock advertisements; 69 agricultural extension workers visited; pure-bred breeding stock placed in 43 counties; held a beef bull sale at the Bourbon Stock Yards; 70 pure-bred bulls placed, 15 beef bulls, 55 dairy bulls; assisted the county agents in conducting two farmers' tours; 6,500 sheep letters prepared for the use of 20 rural banks; prepared articles for various farm publications on better live stock.

This is good work because it brings the business man and the farmer together. It encourages the farmer because he learns that the worthwhile business man of the city is interested in his welfare and it also brings an understanding to the business man of the city concerning farm problems. Anything that leads to a better understanding between the various industries and especially that of agriculture is beneficial to all members of society.

CO-OPERATIVE MARKETING

In an article in this issue on factors pertaining to co-operative marketing, J. F. Larson discusses some of the fundamentals of successful co-operative marketing and why it has not succeeded in a larger way. He laments that farmers are not unanimous in their desire to market their products collectively.

It is not entirely the fault of these farmers that they do not step into co-operative organizations more readily. Unfortunately for this good movement, some of the men who gained positions of leadership were ignorant of what co-operation can do and what it cannot do. They claimed more for co-operative marketing than it is capable of delivering to its members. The extreme statements made regarding the benefits of co-operative marketing have proven and are proving a severe detriment to the progress of this good movement.

It has been stated that through organization farmers can set the prices of their products and in keeping with cost of production, regardless of how much or how inefficiently they were produced. Comparisons have been made between manufacturers and farmers. It has been stated that the manufacturer sets his price, but the farmer does not set the price on his products. The manufacturer sets his price, but he cannot force the consumer to purchase his products unless the consumer thinks they are worth what is being asked for them. The farmer should be in position to set a price on his products the same as the manufacturer, but he must adopt the same methods as are adopted by the manufacturer.

Many instances the past four or five years can be cited where manufacturers were unable to get cost of production. In some cases factories were closed and went into bankruptcy, and in nearly every case production was decreased. The farmer is not in the same position to regulate his production as is the manufacturer, but he can come nearer to it than he does at present if he will give his business closer attention.

Through a rightly organized co-operative marketing institution farmers are in a better position to sell their products. Store houses can be established so farm products can be taken care of during the seasons of big production and then placed on the market during the season of low production; also markets not oversupplied with certain kinds of farm commodities can be located. Higher prices for farm products will be obtained when co-operative marketing companies render the service of grading, of securing better quality, of meeting the consumer's demands, and in advising farmers concerning prospective demand for their products. Co-operative marketing organizations can stimulate an interest in the producer to know what it costs him to produce. If the farmers knew what it cost them to produce a commodity, there would be less danger of flooding the market with any particular farm product.

We must never forget that successful co-operative marketing begins with efficient production and that no co-operative company, no matter how well organized and managed, can hope to return a profit to the man who persists in keeping low producing cows, cultivating low producing acres, placing upon the market inferior products, or producing more than the market demands.

A Standard Bred Registry

A new registry association has risen out in the cow country of Wisconsin which proposes to put the seal of merit on grade cows having a production of 300 lbs. butterfat in a year. The proponents of the new plan argue that a certificate of registry will not only increase the sale value of the grade cow, but will build up in her owner a greater pride and confidence in his business. They

believe that it will cause owners of this class of cows to give greater care to the selection of the sire to head the herd.

"When a farmer engages in this system," says Harry Bailey, founder and president of the Standard Bred Cattle Club of America, "he will cease to go to the pure-bred breeder and say that he has only grades and cannot afford to pay more than a set low price for a bull. Instead, he will insist upon a sire of such quality as gives promise of getting heifers of such ability and type as will be a credit to him as a breeder of 'Standard Bred Cattle'. This farmer will also have an added inducement to continue his membership in a cow testing association and develop his heifers well in order that he may have a verified record on them."

The registration rules of the new association are simple and the charge is moderate, $2.80 per animal registered. A separate register is kept for the grades of each breed, and the animals will be known as "Standard Bred Holsteins", "Standard Bred Guernseys", etc. The rules governing registration are as follows:

1. No males shall ever be registered.
2. The cow must be sired by a pure-bred, registered bull.
3. The cow must conform in markings to the same requirements as are required by the rules of the association which registered her sire.
4. The cow must have a record of 300 lbs. fat in a year and this record must have been made in a regularly organized cow testing association.
5. Provision is also made for the tentative registration of heifer calves out of standard bred registered cows, registry to be completed when they have made the production requirements.
6. A registry certificate containing a full description of the cow and her production will be issued and given to the owner.
7. As time goes on, pedigrees of grade cattle will be made available and larger service will be done in saving good pure-bred bulls.

Something over 300 head have already been registered by the Standard Bred Cattle Club. The question of the success of this new effort will largely depend upon the desire of Mr. Bailey and his associates to serve the dairy farmer and breeder, and upon their ability to sell the idea at this low cost to a sufficient number of farmers to make the club a factor in the cow business. The proposition appears to have merit. It is founded upon the right principles of registration for dairy cattle, although time may show the necessity of some revision in its promotion and its rules to make it safe as well as popular.

This same thought has been in the minds of many pure-bred breeders and at no far distant date we expect to see our pure-bred registry association develop something along the same lines. Registry by pedigree can well be supplemented by requirements as to conformation to breed type and according to certain minimum production requirements before an animal is admitted to full registration. It should be helpful in raising the average production of the several breeds and in maintaining their reputation as dairy cattle.

The Dairy Situation

HOARD'S DAIRYMAN:—Since 1920 the price of butter has consistently been above the level of most other farm products. During the years when grain, beef cattle, and hogs have been low in price, cream and eggs with their regular weekly or monthly check have been the salvation of many a heavily mortgaged farmer.

Farmers in the Dakotas, Montana, and Wyoming particularly, have, because of the near failure of the grain crops in the last two or three years, turned to dairying more than other sections of the country. A recent survey, conducted by the United States Department of Agriculture as to the numbers of dairy cattle in the various states, shows that North Dakota has fifteen per cent more dairy cows than a year ago, while Wyoming has twenty-seven per cent more. As compared to this the North Atlantic States show an average increase of 1.4 per cent and the East North Central States an increase of five per cent. New Hampshire, Massachusetts, New Jersey, and Delaware show an actual decrease in the numbers of dairy cows on farms. There is no question but that there is another influence beside bad crops in the Northwest, which is working in this case, namely, increased freight rates. A concentrated product like butter, worth around forty cents per pound, can be economically transported greater distances than the grain and hay of the Northwest. This has had the effect of encouraging dairying in the Northwest and discouraging it in the East where the dairymen depend largely on grains shipped in from the West:

Production of Butter in the United States

Year	Production (Total)	Per capita production
	lbs.	lbs.
1920	1,539,000,000	14.6
1921	1,705,000,000	15.9
1922	1,779,000,000	16.4
1923	1,862,000,000	16.7

While figures showing the production of butter in the United States are not yet available for 1924, the June first dairy cow survey showed six per cent more cows than at the same time a year previous. This is in addition to the increase of seventeen per cent in production from 1920 to 1923 as shown in the above table.

The high relative butter prices have not only resulted in increasing our own home production but also they have had the natural effect of attracting butter from abroad, particularly from Denmark, New Zealand, and the Argentine. For the fiscal year ending June 30, 1922, which was our first year under the eight-cent tariff, our net imports dropped from more than twenty-six million pounds to about two millions. Since that time, however, the importations have steadily mounted until in the fiscal year ending June 30th last our net imports had again reached and passed the twenty-six million mark. Every dairyman one met during the early part of the present year had been worrying about the competition of Danish butter on our markets and the suggestion has been frequently made that the American dairyman needed more tariff protection from the foreign competition.

We have now reached the point, however, where a tariff will do no good. We have sixty per cent more butter in storage in the United States than we had a year ago at this time. Importations of butter have ceased because at the present time instead of being the best butter market in the world, as was the case a year ago, the United States is about the poorest market. In the early months of this year butter commanded a price in New York thirteen cents per pound above that which ruled in London. At the present time the London price is ten cents above the New York price and the inevitable result is that American butter is now moving to London.

Unless improving economic conditions in Europe, particularly in Germany, result in greatly increased importations and consumption of butter, the price of butter, which now stands about ten points below the general level of farm products, is apparently destined to remain low for some time to come. R. F. TABER.

Ohio State University.

Using the Lactometer

HOARD'S DAIRYMAN:—Average milk contains about 3.5% fat, 9.5% solids-not-fat, and 87% water. Some farmers think that they may add water or skim off cream without being caught at it. To detect watered milk, the lactometer is used in connection with the Babcock test for fat. Let us see how the lactometer works.

Here is a can which holds exactly 100 lbs. of water when completely full. This same can will hold 103.2 lbs. of ordinary milk. If the milk was half watered in the can, it would weigh only 101.6 lbs. The lactometer easily detects these differences.

Here is a glass jar of water. The lactometer put into the water sinks quite deep, almost to the top of the stem. There is a scale of figures in the stem and the lactometer sinks in water to the zero point of this scale. But if this or another similar lactometer is put into a jar of average milk, the instrument floats much higher, at about the 32 mark on the scale. It is easy to understand why the lactometer floats higher in milk than in water. If we should dissolve some salt or milk solids in the jar of water, the lactometer in it would then float higher because the dissolved material makes the liquid heavier than water.

Here is a jar of skimmilk. There is a definite relation between the percentage of solids-not-fat present and the reading of the lactometer. If the skimmilk contains 9% solids-not-fat, the lactometer will read 36. One per cent of solids-not-fat corresponds to 4 lactometer degrees on the scale.

But normal milk also contains fat in addition to solids-not-fat. Fat is lighter than water. If we had this can filled with pure butterfat the fat would weigh only 90 lbs. If we add some fat to the skimmilk, or use whole milk instead, the lactometer will sink deeper because of the fat present. Five per cent of fat in milk will let the lactometer sink as far in as 1% of solids-not-fat will raise it.

If the whole milk contained 9% solids-not-fat and 5% of fat, the solids-not-fat would raise the lactometer to 36, but the fat would lower its reading from 36 down to 32. To figure the per cent of solids-not-fat in milk whose lactometer reading is 32 and fat test 5%, figure ¼ of the lactometer (32), which is 8, and add one-fifth of the fat test (5), which is 1. Adding 8 and 1 gives 9, which is the per cent of solids-not-fat in this milk.

But this is not all. The milk should be at 60 degrees F. when the lactometer is read, or at least between 50 and 70 degrees. If the milk is at 55° F. the lactometer will read too high by .1 for each degree of temperature below 60 degrees F. If the reading is 32 at 55 degrees F., the corrected reading for 60 degrees F. is calculated by subtracting 5 times .1, or .5 from the observed reading, giving 32.5 as the corrected lactometer reading. Similarly, if the milk was at 65 degrees F., the corrected reading for 60 degrees F. would be obtained by adding .5 giving 32.5 as the correct lactometer reading.

There is a thermometer inside of the lactometer, and this must always be read at the same time as the lactometer itself.

Wisconsin dairy laws require that whole milk must contain at least 8.5% solids-not-fat, and at least 3% fat. If a given sample of milk tests only 1.5% fat, it appears to be either skimmed or watered. To find out which, the lactometer reading is taken at 60 degrees F., which we will now suppose to be 15.8. To figure the per cent of solids-not-fat we take ¼ of the lactometer reading (15.8) and to this add one-fifth of the fat test (1.5). This gives 4.25% as the solids-not-fat in this milk. As this is only about half of the legal standard, it is clear that the milk has been watered about one-half.

If a sample of milk tested 1.5% fat and 32.8 on the lactometer at 60 degrees, then the solids-not-fat are one-fourth of 32.8 plus one-fifth of 1.5, or 8.5% solids-not-fat. This milk is therefore legal as to solids-not-fat and does not appear to be watered. The low fat test, 1.5%, is only about one-half of the legal fat standard, and the milk appears to be skimmed about one-half.

If a sample of milk tested 1.5% fat and 22.4 on the lactometer at 60 degrees F., the solids-not-fat would be .3 plus 5.6, or 5.9% solids-not-fat, indicating that it was only about 59-85, or 70% milk, and the remaining 30% was added water. The milk in the mixture contained 1.5 divided by 0.7, or 2.1% fat, indicating that the milk had been skimmed from 3% down to 2.1%, or 30% of the fat removed before adding water.

As the milk from different cows in herds differs in composition, it is usually necessary to go to the barn of the farmer who delivers this milk, see the cows milked, see that the milk is collected in clean cans, mixed, and sampled so that watering and skimming of this sample is not possible, and compare the fat test and solids-not-fat test of this barn sample with that of the milk usually delivered at the factory.

A state dairy and food inspector has police power and has the authority to go to any farmer's barn and get a barn sample of the milk. Therefore, when it is suspected from the factory tests that milk has been adulterated by skimming or watering, it is best to report the case to the state official, so that he may get samples and test them himself in order to make a final decision.

Wis. College of Agriculture. J. L. SAMMIS.

Tennessee Using Limestone

The agricultural forces of Tennessee are centering their efforts on a soil building program, the foundation of which is lime and legumes. According to County Agent C. H. Moody, Robertson County is leading in this program if measured in terms of increase and amount of limestone used.

In 1922 Robertson County farmers used 500 tons of limestone. As a result of a campaign in 1923, 4,000 tons were used, half of which was shipped in and half produced by local pulverizers.

The 1924 program called for 10,000 tons to be used in the county by Christmas time. A survey made of three local pulverizers showed that they had produced 4,178 tons of their 5,400 tons allotment by the end of October. All things indicate that the 10,000-ton program set at the beginning of the year will be reached.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

W. D. HOARD & SONS CO., Publishers
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General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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Junior Editor - - RUSSELL E. FROST

Corresponding Editorial Staff:
PROF. W. A. HENRY - - Wis. Exp. Station
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Subscription Rates

Subscription in United States and Mexico $1.00 per year; 3 years, $2.00; Canada, $1.50 per year.

FOREIGN SUBSCRIPTIONS may be sent through news dealers and book sellers in all foreign countries.

All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $3.00 including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Dec. 10-12—Wisconsin Cheesemakers' Association meets in Milwaukee Auditorium. J. L. Sammis, Secretary.

Dec. 10-16—Pacific Slope Dairy Show, Oakland, Calif.

Jan. 8, 1925—The Massachusetts Dairymen's Association holds its annual meeting in connection with the Union Agricultural meeting in the Massachusetts Armory, Worcester, Mass.

Ask Dad, He Knows

Wallie: Papa, why do they call our language the mother-tongue?

Father: Well, just see who uses it most.—Good Hardware.

Policies of the National Grange

Declared at the 58th Annual Session at Atlantic City

THE National Grange closed its 58th annual session, held for ten days at Atlantic City, N. J., with many policies declared in behalf of the organized farmers of America, which are significant for the future of agriculture and the rural people. The session was largely attended, great interest was shown, and many forward-looking plans were made.

A class of 2,032 candidates received the seventh degree of the Order and voting delegates were present representing 28 different states. Many speakers of prominence addressed the session and it was voted to hold the annual session of 1925 at Sacramento, California; while W. J. Thompson of Maine, retiring from the executive committee after a considerable period of service as its chairman, is succeeded by State Master A. S. Goss of Washington.

The outstanding votes of the Atlantic City session which will command widest comment as a declaration of policy by the National Grange were:

1. Strong declaration for the equality of agriculture—in legislation and in government plans, also in the adjustment of tariff rates, etc., to insure an equitable balance between producers and consumers.

2. Emphatically endorsing the co-operative marketing idea, and the promise of the National Grange to support such legislation in the coming session of Congress as shall best advance the co-operative marketing principle, under federal supervision.

3. Approval of the plan for a federal commission for the development of super-power, in order that its advantages may be carried to farmers and country people.

4. Construction at the earliest possible date of the Great Lakes—St. Lawrence waterway, as an added means of opening up transportation facilities in the United States.

5. Vigorous opposition to the proposed 20th amendment on child labor, in its present form, and the pledge of the National Grange to use all its organized energies to prevent ratification; but reaffirming Grange interest in every form of genuine child welfare, education, and development.

The National Grange Voted to Favor:

A high export duty or an actual embargo on logs and unfinished lumber not yet fabricated into industrial products.

Immediate completion and operation of Muscle Shoals by the government, or its lease on such terms as will insure the production of fertilizer for the farmers at cost, but strictly under the terms of the water power act.

Reorganization of the postal service and adjustment of salaries and administrative methods to increase the efficiency of the department.

Closer supervision of movie picture films and rigid clean-up of objectionable features.

Increased appropriations and efforts to stamp out bovine tuberculosis, in the interests of the public health.

Energetic efforts and liberal state and federal appropriations to check the spread of the European cornborer.

Full endorsement of the income tax principle, federal and state.

A well defined policy by the United States Department of Agriculture directed towards economic adjustments rather than increased production, as the immediate need of the American farmer.

Continuation of the immigration restrictive laws enacted the past year and objection to any letting down of the bars on the "ineligible alien" clause, or otherwise permitting the admission of the yellow races.

A non-partisan ballot in municipal elections.

Support of the federal farm loan act and its defense against legislation that would have a tendency to interfere with the provisions of the act or to compel increased interest charges to farmers.

Rigid enforcement of all laws, federal and state, and positive opposition to any weakening of the Volstead Act for enforcement of national prohibition.

Full publicity for income tax returns.

More thoroughly trained teachers for rural schools; plain, practical, and serviceable rural school buildings with proper sanitary equipment but without extravagant expenditure of funds; ample playgrounds to be provided in all plans for new school buildings in the open country.

Endorsement of vocational training and especially increased instruction in agriculture; health inspection work in the public schools with proper teaching in physiology and hygiene; stress the necessity for making the spirit of rural school teaching point towards country life instead of away from it.

Urging the Department of Agriculture at Washington to use its utmost energies towards balancing production with consumption in future agricultural planning.

Such reorganization of the railroad labor board at Washington as shall give the public larger instead of reduced representation.

The National Grange Opposes:

Any shifting of bureaus or other activities from the Department of Agriculture to the Department of Commerce.

The creation of any new bureaus or departments in federal or state administration.

Federal or state aid for reclamation, irrigation, and colonization projects, until such time as it is clearly apparent that the available agricultural acreage of the country must be increased.

Daylight saving, or any other time system that shall interfere with the universal operation of Standard Time in all states and parts of states.

All reductions in tariff rates on dairy products, which rates are declared already so low that American dairymen are suffering seriously from foreign competition.

The use of milk or any milk products in combination with vegetable oils to manufacture "imitation butter".

Any universal school centralization or consolidation policy, on the ground that school questions are purely local in their nature.

Every form of adulteration of food and fibre products and misrepresentation in branding or labeling; with strong reaffirmation of former Grange demand for an effective truth-in-fabrics law.—Nat'l. Grange.

Minnie Gretchen of Bonnie Doone, owned by the American Woolen Company, Massachusetts, recently completed an Advanced Registry record of 17,419 lbs. milk, 749.59 lbs. fat. —Ayrshire Breeders' Association.

Report of National Dairy Union

At the World's Dairy Congress, President Calvin Coolidge said of the value of dairy products: "As a food product there is no substitute for that which comes from the dairy. It contributes an important element to the growth, and development both of the body and mind, for which there has never been discovered any adequate substitute."

The National Dairy Union stands for the protection of the "food products of the dairy" against so called substitutes, fraudulent statements, and advertising, deception, and imitation. Because of this it is particularly fitting that the secretary of the Union has incorporated the statement of the President in his annual report to the board of directors.

In the annual report of A. M. Loomis, secretary of The National Dairy Union, dated November 8, to the directors and members, the following are some of the more important parts of the report:

Some progress has been made in the writing of truthful advertising laws on the statute books of several states designed to compel the elimination of false statements and misleading illustrations in the advertising of oleomargarine, but little or no other progress has been noted.

The National Dairy Union participated and took some part in the organization and conduct of the World's Dairy Congress held at Syracuse, New York, in November, 1923. The president represented the Union at the time the American Dairy Federation was formed. The secretary of the Union was made secretary for the Federation which fact broadened the scope of his services because of the fact that problems came up that he formerly could not undertake as a representative of the Union.

It was necessary for the Union to take a definite part in the controversy to prevent a reduction in the tariff on vegetable oils, an investigation of which had been asked for by those engaged in the manufacture of soap, imitation lard, imitation butter, etc. A tariff defense committee was organized. About this time the American Dairy Federation became fully organized and took over this work.

The Union took a part in the successful efforts to pass the bill creating the Dairy Bureau.

An outstanding event of the year was the decision of the U S. Supreme Court in the Tilden produce case completely doing away with the basis upon which the Internal Revenue Bureau had been proceeding in enforcing the Adulterated Butter Law for the past 14 years. The Union was instrumental in securing copies of the decision and distributing these to butter manufacturers with a full discussion of the ruling and its possible effect published in the trade papers.

During the year the regular monthly bulletin service has been maintained. In all about 53,000 copies have been mailed to creameries and individuals.

In conclusion the report of Mr. Loomis says in part: "The manufacturers of the imitation products are now seeking in every way possible to make the public believe that the vital qualities of real butter are being artificially reproduced in their products. It is not a time for the dairy industry to slacken its efforts to prevent fraud and deception as to substitutes and imitations."

Don't try to fool the world; it has had a great deal more experience than you've had.—Boston Evening Transcript.

Oregon Buttermakers' Convention

The fifteenth annual convention of the Oregon Buttermakers' Association opened at Hotel Portland on November 5. The greatest trouble at this year's convention was to get those present warmed up to a good discussion. Apparently the losing of the bill against oleo by such a large majority had a paralyzing effect upon the creamery men present. However, some very constructive features were started and committees placed in charge who have a reputation of putting things over.

Regular butter judging schools will be held at various points over the state. A cream grading school will be organized in connection with the Oregon Agricultural College Dairy Manufacturing short course given in January. Immediate steps will be taken to secure Chris Johnsen as dairy manufacturing specialist for Oregon, with the object of standardizing Oregon butter.

President H. C. Raven's address was heard with considerable interest. Emphasis was laid on the quality of our surplus butter and he made a very urgent request that steps be taken to put on a dairy manufacturing specialist in Oregon who could work among the creameries in an endeavor to standardize Oregon butter. Mention was made of the improvement done by Mr. Chris Johnsen, of the U. S. Bureau of Dairying, and it was urged that more Oregon creameries request his services, stating that there was immediate need of a full-time man of Mr. Johnsen's calibre right here in Oregon. Mr. Raven recommended that our legislative committee consider a law which would control butter brokers and commission men, for under our present system Oregon creamery men have no protection. Special emphasis was placed on a regular butter judging contest. It was suggested that the buttermakers be asked to meet monthly at specified places over the state, each to bring a sample of their butter for scoring. He brought out the fact that every buttermaker must be a good judge of butter, and suggested that a cream grading school be made a part of the short course offered at the Oregon Agricultural College. After considerable discussion a committee was appointed to make arrangements for this cream grading school, and forty buttermakers indicated their intention to attend. Two creamery presidents spoke very highly of the cream grading school, and stated that they would see to it that their buttermakers attended, as they readily realized not only the importance of cream grading, but that every buttermaker should know how to grade.

Governor W. M. Pierce appeared next on the program on the subject, "Dairying—What It Will Do for Oregon". Mr. Pierce in discussing the results of the election, stated that being a Democrat, he was used to losing, but that a fighter will win and a quitter will lose. Emphasis was placed on the use of this slogan when he said, "I wonder how far they can get on propaganda and slogans". He mentioned "dollar butter" used by the oleo people in the recent election. This slogan no doubt won the fight for the oleo interests, while taking the oleo off the Oregon market would not affect the price in the least. In the discussion which followed this address it was brought out that thirty people in Oregon were supported through the manufacture of oleo, while around fifty thousand people were interested in dairying. Also that there was an 8c tariff on real butter and only 1½c duty on cocoanut oil, and that this cocoanut oil which competes against butter costs only 13c per pound.

Election of officers resulted in the secretary being instructed to cast a unanimous ballot for Judge Frost, president; A. J. Colt, vice-president; V. D. Chappell, secretary-treasurer. The executive committee, H. C. Raven, Harry Haroldsen, R. E. Cavett, M. M. Boney, and L. B. Ziemer.

There were forty-eight exhibits, but they were not of as high a quality as we have received at past conventions. This may be accounted for by the fact that more exhibits were sent in from the regular make rather than from specially made churnings. Mr. B. N. Beyer exhibited the highest scoring cube, receiving a score of 95. Mr. Russell Patterson won the $10 cash prize and the Fucoma moisture scale for having the highest average at the State Fair, the Western Dairy Products Show, and the Oregon Buttermakers' Convention. A. Erickson won the cream grading contest, and F. L. Soper won the butter judging contest.

V. D. CHAPPELL, Sec.

Dairy Production Short Course

There has been a great deal of interest in dairying during the last few years and the demand for trained men in dairying has been greater than the number of trained men available for such positions. The Dairy Department at Purdue receives many inquiries for cow testers, official testers, herdsmen, and dairy farm managers.

The Dairy Production course is designed to give the necessary training which will assist in qualifying young men for the above positions. Balanced rations for dairy cattle, common diseases of dairy cattle, and the kind of crops suitable for a dairy farm and a study of dairy farm organization and marketing of dairy farm products, are subjects which the students who register for this course receive. The lectures in dairying will be supplemented by practical work in the University dairy herd, which consists of approximately one hundred head of pure-bred cattle, representing four dairy breeds.

This course begins January 19th and closes March 13th. Anyone interested in this course may secure additional information by writing H. W. Gregory, Chief of Dairy Department, Purdue University, W. Lafayette, Indiana.

Wisconsin Dairy School Opens

The three months' winter dairy course at the Wisconsin College of Agriculture began Nov. 6th with an attendance of 90 students, which is a 50% increase over the 60 students who were present on the first day of school last year.

This class of students is made up mostly of creamery buttermakers and factory cheesemakers, but there is a constantly increasing number of students taking the course of special instruction in ice cream making. The laboratory instruction and the superintendent's work of the city milk plant and of milk condenseries are also developing rapidly to meet the increasing demand for this instruction.

The special instruction for ice cream makers begins a little later in the course, but this department is well equipped with machinery and supplies needed for that instruction. As in former years several factory owners have sent their employes to take the course, paying them full wages while they are students with us.—E. H. FARRINGTON.



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Thatcher Superior Quality Milk Bottles are guaranteed for

Quality, Accurate Capacity, Durability and Satisfaction,

Which Means "More Trips per Bottle" For You



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For Economical Feeding This Winter . . . .

Diamond Corn Gluten Meal and your home grown oats, fed in this manner:

700 lbs. Oats (ground)
250 lbs. **Diamond**
50 lbs. Oilmeal

gives you a 21%-protein ration that is perhaps as economical as any milk-making ration that could possibly be mixed. Furthermore it is safe to feed, somewhat laxative, palatable and highly productive of milk.

Or, if you have no oats or wish to market what you have direct instead of through the milk pail, try this:

750 lbs. Bran
200 lbs. **Diamond**
50 lbs. Oilmeal

which contains 22% protein.

EITHER ration can be easily and thoroughly mixed in your own barn. Either will keep your dairy cows in good condition and producing a lot of milk until you turn them out next Spring. Try **Diamond** either way and keep records of milk yields and feed costs. The result will please you.



40% Protein Guaranteed

IN EVERY LIVE DEALER'S STOCK

AND EVERY GOOD DAIRY RATION

Corn Products Ref'g Co.

New York Chicago



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R. R. RAIL SECTION T-STEEL

POSTS

Drive Like an Arrow Anchor Like a Rock



Arrow Tee-Steel Posts and Zinc Insulated Fence give you the longest lasting and lowest cost fence in years of service that you can build.

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Sold by good dealers everywhere.

Zinc Insulated TRADE MARK **FENCES**

AMERICAN — ROYAL
ANTHONY — U. S.
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Of all farm needs fence is the foremost necessity

AMERICAN STEEL & WIRE COMPANY
Chicago New York Boston Dallas Denver

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Minn.	Jackson Co. 1	Oct.	G. H.	64.2	A. W. Blankenburg
"	Pine Co. 2	"	R. H.	60.2	Weideman Bros.
"	Askov	"	R. G.	62.9	Petersen Bros.
Ind.	Spencer-Perry	"	J.	69.7	R. Taird
"	Culver	"	G. J.	71.9	G. Staley
"	Elkhart Co.	"	R. H.	69.6	C. Weldy
"	Del. Co.	"	J.	70.4	H. Marsh
Ill.	McLean Co. D. I.	"	G. G.	74.4	Snow & Palmer
"	Kane Co. 3	"	G. H.	72.7	Geneva School for Girls
"	Ogle Co.	"	R. H.	110.3	Sinnissippi Farm
"	McHenry Co.	"	G. H.	70.4	W. Whitmus
Calif.	Imperial Co.	"	G. H.	112.5	E. A. Nater
Iowa.	Mitchell Co.	"	G. H.	76.3	A. Winther
S. D.	Hamlin	"	G. S.	49.4	O. M. Olson
Ida.	Ada. Co.	"	G. G.	70.9	H. A. Wines
Vt.	Can. Orange	"	G. G.	69.7	H. Varney
N. D.	Flasher Hol.	Sept.	R. H.	41.5	W. F. Reynolds
Utah	Hyr.-Paradise	Oct.	G. H.	82.8	E. Nielsen
Va.	Henrico	"	G. H.	60.5	F. O. Dorey
"	Fairfax 1	"	G. H.	74.5	B. Middleton
Wash.	Pierce Co.	"	H.	110.8	West-State Hospital
Md.	N. Montgomery	"	G. G.	63.0	E. Riggs
"	U. Montgomery	"	G. H.	82.6	W. Magruder
Ky.	Campbell Co.	"	R. J.	80.8	H. Hartke
"	Mason Co.	"	R. J.	65.1	Perrant Bros.
Mich.	Rives.-Jackson	"	G. H.	83.5	W. Clarke
"	W. Allegan	"	J.	70.5	H. N. Johnson
"	Leelanau Co.	"	R. H.	80.2	D. H. Day
"	Tuscola 1	Sept.	R. H.	58.7	G. Foster
"	So. Menom.	Oct.	G. H.	61.0	A. Fries
"	Gogebic	"	N.	70.3	V. Saarikoski
"	St. Clair 3	"	R. H.	72.6	C. Radford
Va.	Southside	"	R. G.	58.8	J. S. Agnew
Wis.	Marion	"	R. H.	58.9	H. Maas
"	Marshfield 2	"	G. G.	49.4	Mrs. C. Tews
"	Neillsville 1	"	R. H.	70.3	Imig Bros.
"	Eagle Point	"	G. J.	55.9	E. Woodruff
"	Dodgeville	"	R. H.	55.2	C. L. Jones
"	Milton-Edge.	"	G. H.	51.0	W. F. Trescher
"	Leo.-Pel.-Tilleda	"	G. H.	52.1	L. Westphal
"	Spr. Gr. Wyo.	"	G. H.	48.9	F. Sheldon
"	Marshfield 1	"	R. H.	77.2	W. Schimmelpfenig
"	Byron	"	R. H.	66.7*	Cowles & Sommerfield
"	Foot.-Evans.	"		77.5	H. Brougaton
"	Ith.-Lone Rock	"	R. H.	60.2	H. A. Brace

* Sampson and Birg's Holstein cow also made 66.7 lbs. fat in October.

Association Notes by Testers

Jackson Co. No. 1, Minn.: One small silo was erected. A dairy barn was enlarged and modernly equipped and several other barns were improved. A tile milk house was built. Two bad separators were corrected. Last month the creamery paid 40 cents per lb. for fat.—C. W. Meyers.

Culver, Ind.: The 368 cows tested averaged 636 lbs. milk, 24.8 lbs. fat; profit, $9.92. George Staley had high herd average for last month. His 9 grade Jerseys averaged 38.9 lbs. fat. In October market milk sold for $2.40 per cwt.; the cheese factory paid $1.30 per cwt. Sour cream brought 34 cents per lb. for fat; sweet cream, 36½ cents.—W. R. Matthews.

Elkhart Co., Ind.: This association has just completed its first six months of operation with an average production of 777 lbs. milk, 28.1 lbs. fat. Regular monthly meetings are held, October being the special quarterly, a meeting was held at a member's home. A good program followed the business meeting. Market milk sold for $1.80 to $3.25 per cwt. The condensery paid $1.80 per cwt. The creamery paid 33 to 40 cents for fat. Milk retailed for 10 to 12 cents per quart; butter, 42 cents per lb. in October.—W. D. Campbell.

McLean Co. D. I., Ill.: One separator tested was found to be losing about $47.50 a month. A "500-lb. butterfat cow club" project is to be taken up jointly by this association and the Farm Bureau, with prizes to be awarded to owners of the three highest cows exceeding 500 lbs. fat in one year; test to be conducted under strict supervision.—H. R. Fletcher.

Ogle Co., Ill.: The 306 cows tested last month averaged 772 lbs. milk, 26.7 lbs. fat. Of the 21 members in this association, 17 have Fords, 5 tractors, and 5 other gas vehicles. Eleven members do not take dairy papers. Two radios have made an appearance. Seven members own farms. Price of butterfat is causing some dairymen to eat oleo. Last month market milk sold for $2.00 per cwt. The condensery paid $1.60 per cwt. for milk.—J. Potter.

McHenry Co., Ill.: Pastures have been exceptionally good in October due to fine weather and use of clover. New seedings of alfalfa and sweet clover have been used to quite an extent. Silo filling has been finished and, although most of the corn was quite green, it is making good silage. Grain will be rather scarce this fall and winter with many producers either having to buy feed or get along without it. Some dairymen advocate "roughing" the cows through as best they can. One of the most successful breeders said that when he cannot give his cows enough feed to keep them in proper flesh, he will quit. Last month market milk sold for $2.40 and retailed for 12 cents per quart.—B. McClellan.

Imperial Co., Calif.: Production is much improved by adding whole cotton seed to the dairy rations. Thirty-one of the 90 herds tested were fed cotton seed. The creamery paid 43 cents per lb. for fat. Milk retailed for 14 cents per quart; butter, 50 cents per lb. last month.—V. W. DeTar.

Mitchell Co., Ia.: The two highest butterfat cows in October produced over 70 lbs. In September one cow went over the 70-lb. mark. These are the only cows to reach seventy pounds in the 21 months that the association has been running. In October this year 34 cows produced over 40 lbs. fat as compared with 14 cows in October last year. The association average was 25.3 lbs. fat compared with 22.1 lbs. a year ago. Every month tells a similar story of progress.—O. A. Hanly.

Hyrum—Paradise, Utah: There are 358 cows milking in the association and 90 cows dry. The average production per cow was 735.9 lbs. milk, 29.53 lbs. fat. Fifty-six cows produced 40 lbs. fat or more.—D. M. Reid.

Henrico, Va.: The average production of the 579 cows tested was 547 lbs. milk, 21.6 lbs. fat. Twenty cows were entered in R. O. P. by 4 different members. The Henrico County herd won first prize at the State Fair, the fourth succeeding time it has attained this honor. A new association has been organized in this section to be known as the Chesterfield Association. Grade A market milk sold for $4.71; grade B, $4.05 per cwt. and retailed for 14 cents per quart in October.—S. Simpson.

Fairfax Co. No. 1, Va.: Twice the normal acreage is required to fill silos. Corn is fairly well matured in only a few cases. A number filled only half their silo capacity. Eighty-eight cows produced 40 lbs. fat or over; twenty, 50 lbs. fat or over. Market milk sold for $3.02 per cwt. and retailed for 14 cents per quart in October.—C. E. Snell.

Pierce Co., Wash.: Five hundred and sixteen cows were tested and 122 were dry. The average production per cow was 906 lbs. milk, 39.5 lbs. fat. One hundred and fifty-six cows produced over 40 lbs. fat; 77 over 50 lbs. fat. The high herd of 80 Holsteins, owned by the Western State Hospital, averaged 1,356 lbs. milk, 53.2 lbs. fat.—A. M. Richardson.

Upper Montgomery, Md.: The usual advance in the price of milk in the autumn has not occurred yet. One new barn and two silos have been completed. At the sale held October 29th, cow testing records

were a considerable factor in boosting the price of some of the cows. Last month market milk sold for $3.20 per cwt. and retailed for 15 cents per quart.—M. C. Donnell.

Mason Co., Ky.: This association was organized by the county agent, R. M. Greene, and Ed. Prewitt, dairy specialist from the Kentucky Experiment Station, with A. L. Glasscock as president and George Dodson, Joe Davis, W. B. Smoot, and Geo. Seddon as directors and Chester Lawrence as tester. Eight members are doing official test work and 3 semi-official work. Of all the cows on official test in the state of Kentucky (128) only 29 cows made the Honor Roll, producing 1.5 lbs. fat per day per cow. Nine of the 29 cows making these records belong to members of this association, practically one-third of the record making cows in Kentucky. W. H. Newell has the highest producing herd. His 8 registered Holsteins gave an average of 1,077 lbs. milk, 40 lbs. fat in October.—R. M. Greene, County Agent.

Rives—Jackson, Mich.: Members are beginning to feed silage. Not much corn is fit for grinding. One member is installing drinking cups. Another member lost about one-sixth of his butterfat in the separator, mainly due to slow turning. Last month market milk sold for $2.50 per cwt. The condensery paid $1.75 per cwt.; the cheese factory, $1.90; creamery, 37 to 40 cents per lb. for fat.—J. Bird.

South Menominee, Mich.: Seven members feed silage, 5 roughage in the barn, 13 grain, and two feed alfalfa. Two new dairy barns are nearly completed. Last month the cheese factory paid from 40 to 44 cents per lb. for fat; the creamery, 37 to 40 cents.—R. O. Maxan.

Gogebic Co., Mich.: One member installed a new milker. Members of this association purchased their winter's supply of feed at September prices and have already received 4 carloads at a saving of $6 per ton compared with the present local price. Last month market milk sold for $2.75 per cwt. and retailed for 12 cents per quart.—R. L. Peterson.

St. Claire No. 3, Mich.: Two herds were tested for tuberculosis and no reactors found. A group of 4, including 3 association members, bought a yearling 28-lb. 4-year-old pure-bred Holstein bull. A check test was taken at Avoca milk station. In October market milk sold for $3.00 per cwt.—H. Larsen.

Marion, Wis.: Three barns were whitewashed. Forty tons of feed were bought at a saving of about $10 per ton. One member built a concrete milk house and another put a new feed alley in his barn.—S. E. Slotness.

Eagle Point, Wis.: Nineteen cows made over 40 lbs. fat in October. One new silo was built, one new Fordson purchased, a new poultry house built, and one barn whitewashed. Twenty out of 24 members are feeding good dairy rations now. —W. Stamm.

Marshfield No, 1. Wis.: Forty-one cows produced more than 40 lbs. fat last month. Henry Knorr's 9 registered and grade Guernseys held the high herd average with 866 lbs. milk and 45 lbs. fat.—L. A. Eggleston.

Byron, Wis.: Farmers are now feeding cows in the barns. There is an abundance of roughage but some farmers will have to buy grain. Last month market milk sold for $1.92 per cwt. The cheese factory paid $1.40 per cwt. Milk retailed for 10 to 15 cents per quart; butter, 44 cents per lb.—R. G. Thurman.

Footville—Evansville, Wis.: Wayne Lewis has high herd which averaged 1,253 lbs. milk, 44.7 lbs. fat. Four herds were tuberculin tested under federal supervision. Several barns were whitewashed.—A. C. Lasse.

Ithaca—Lone Rock, Wis.: Two pure-bred Holsteins were sold at an average of $143 and 4 grade Brown Swiss were sold at an average of $95. Seven herds were tested for tuberculosis and two reactors found. Three of these herds will be placed on the accredited list. One member has installed an electric plant. Silos are filled and it has taken more acres to fill them this year. Bran retails for $30 per ton; oats, 50 to 55 cents per bushel. Butterfat is worth 41 cents at the creamery and the condensery nets the farmers 38¾ cents per lb. —F. A. Dengler.

Southside, Va.: J. S. Agnew, owner of the high cow for October, sold a 3-year-old, an excellent individual, for $2,100. She dropped twin heifer calves two months ago and was placed on official test. In general, the test of milk was up this month for apparently no other reason than change from pasture to winter feed. Market milk sold for $3.93 per cwt. and retailed for 15 cents per quart last month.—C. A. Buck.

A Michigan Association

The Macomb No. 1 Association of Michigan completed its year with 322 cows with a full year's record. Fifty-eight cows were bought, 33 sold for beef, and 19 for dairy purposes. The average production per cow was 9,052 lbs. milk containing 320 lbs. fat. There were six herds averaging over 350 lbs. fat and 17 that averaged over 300 lbs. The high herd consisted of 12 registered Holsteins owned by Otto Mietz that averaged 411 lbs. fat. Eighty-one cows produced over 10,000 lbs. milk and 132 produced over 300 lbs. fat. High cow was also owned by Mr. Mietz with a recorded production of 636 lbs. fat and 16,079 lbs. milk.

Thre are now 222 acres in sweet clover as compared with 40 acres the year before. This pasture aided in maintaining milk flow during July to October. There are 422 acres of alfalfa growing on the farms of members. Five bulls were purchased and eight partnership or community sires are owned by members. Fifteen members have electric lights and two acetylene, nearly all of which were installed during the year. Eight members have drinking cups and 17 use milk coolers. Sixteen herds were tested for tuberculosis and three were fully accredited. Sixty-one cows made the Register of Performance requirements.

The average production of 35 bull association daughters, including 9 two-year-olds, was 318 lbs. fat. In A. Luchtman's herd 6 daughters of one sire averaged 352 lbs. fat at 3 years old.—ELDON BARCLAY, Tester.

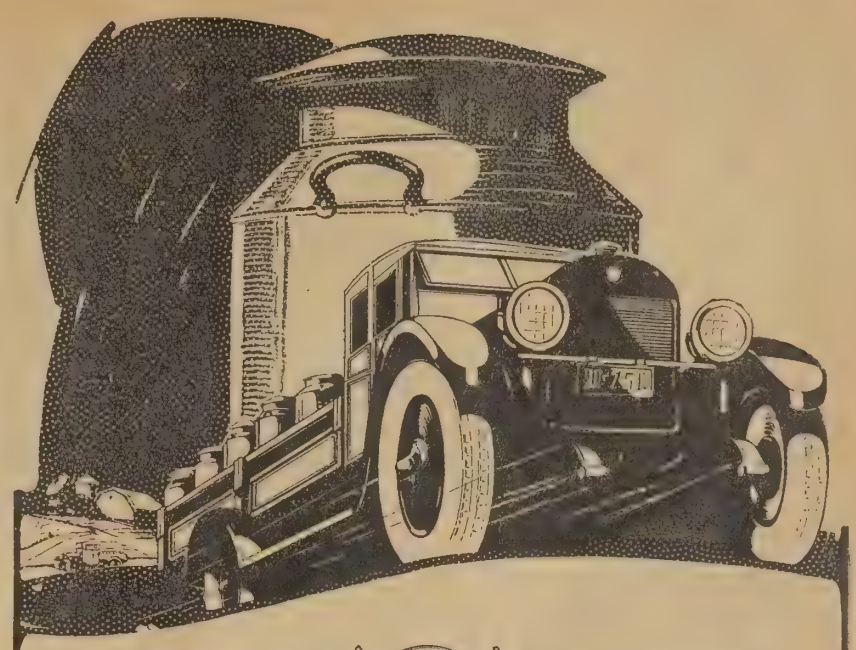
Association Cows Worth More

"The value of pure-bred cows is largely determined by their records of production," says G. W. Tailby in Extension Bulletin No. 83 of the New York State College of Agriculture.

"For that reason, dairymen are becoming more and more insistent that some indication of the producing ability of the grade cows they purchase be furnished with the cows. A good grade cow with a definite record of production is worth $25 to $50 more than she would be without such a record."

In a Livingston County sale of grade cows those which had produced 40 lbs. of fat during the previous month brought $50 a head more than did the others.

Mr. A. E. Johnson says: "I would pay $25 more per head for cows with association records than for ordinary cows. I often have to buy 5 cows in order to get 3 good ones."



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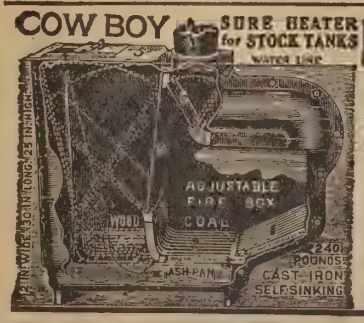
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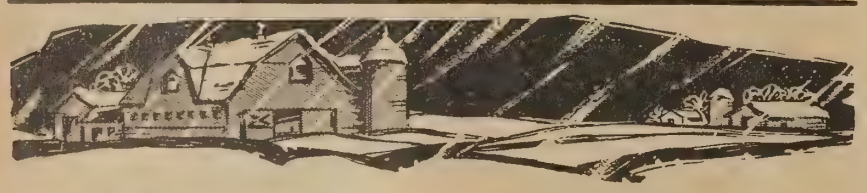
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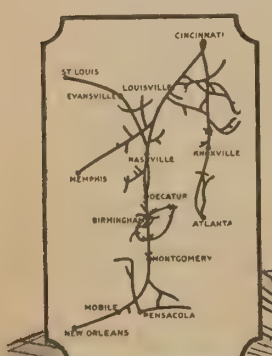
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New York Dairymen's Association

H. H. LYON, NEW YORK

NEW YORK dairymen hold an annual convention in November. Last year there was some thought of consolidating the association with other farmer groups and make a bigger convention, but I think it is pretty definitely decided not to drop the identity of the various organizations.

This year the dairymen's convention started off with a pretty good attendance and with Dr. G. F. Warren as the first speaker. His topic was the situation in Europe. He gave much the same as that at Ithaca recently which has already reached Hoard's Dairyman readers.

Evidently dairying in European countries is different from what it is here. In Denmark, for example, the cows are milked three times a day which accounts for some of their high production. Cows are frequently fed eight or nine tons of roots which, the doctor estimates, means a tremendous lot of backache. In Holland the pasture season is seven months and good pasture, too. In Denmark most of the butter is made in co-operative plants and a considerable proportion of it is sold and exported by co-operative associations. There is close inspection on all butter exported and heavy penalties on any exportation or attempt to export butter of low quality. The same close inspection is held on Swiss cheese exports to the United States. The Swiss fear that we may go to making our own Swiss cheese in ample quantities if they do not hold the standard high.

Legumes Reduce Costs

Some features of the future of the feed business were discussed by H. E. Babcock of the G. L. F. Exchange. However, a movement is gaining to grow more clover and alfalfa, the result being to reduce the percentage of protein used in the grain ration. A twenty per cent ration can be sold at four dollars below a 24 per cent one and if of sixteen per cent the cost will be still less. If ample legume hay of high quality is used and a sixteen per cent grain feed of high digestibility is fed, the results are very satisfactory.

The president of the association, Dr. W. A. Stocking of Cornell, then called upon A. C. Dahlberg of the Geneva Experiment Station to take charge of a discussion of butter. It was suggested that there is considerable butter made in New York State from cream either taken in at a plant from farmers or shipped by truck or rail, sometimes from some distance away. There seemed to be quite a feeling in favor of New York dairymen delivering direct to smaller plants, and it was pointed out that in such cases grading of cream might be done while in the large centralizers with long shipments the matter of grading is difficult if not impossible. The larger the plant, within reasonable limits, the lower the cost to turn out butter on a pound basis.

"In-law Cows"

Commissioner Pyrke of our state department is always a welcome speaker. He asked whether the dairy industry of New York is efficient. He took up two lines, volume and quality. In 1922 the volume of production was 5,060 pounds of milk per cow and a year later 5,111 pounds. Then he spoke of the state farms with their two thousand bovine individuals. On one of these farms the average production is over ten thousand pounds per cow and the average of all is over eight thousand pounds.

Speaking of quality, he means content of milk in solids. In 1893 total solids seemed to average 12.67 per cent and in 1924 this averaged 11.96 per cent. The fat content dropped during the same time from 3.76 to 3.54 per cent. The protein content changed from 3.14 to 2.95 per cent, according to figures from the department.

Again turning to the state farms he finds that taking them all during this period of depressed agriculture they are turning in a profit of 13 per cent. In a partial analysis of these figures he finds that there is a high value attached to the farms, particularly on account of the expensive buildings on them. It is not undervaluation, then, that permits this high return and he denies that it is due to inmate labor at the asylums, prisons, etc. In his statements he shows that much is due to the marketing. Everything is sold to the institution at the local wholesale prices, but it all has a market. Then it is sold without handling and transportation charges. The marketing problem is solved. It is a condition that cannot be duplicated by the usual farmer but something approaching it ought to be striven for.

There is little serious effort made to bring our production to a point approximating demands. We are suffering still from overproduction. This the commissioner appears to believe is our great immediate problem. While he does not fully favor the expression "boarder cow", because a boarder is understood to pay for what he gets, yet he is emphatic in condemning the keeping of the low producers which he is inclined to term in-law cows that fail to settle the board bill.

Cow Testing

Mr. G. W. Tailby is in charge of cow testing work in New York. We have less than forty associations. In addition there are a few clubs where the owners take their own samples and do their own weighing. Not over one per cent of the cows of the country are in testing associations, Wisconsin having the largest number of associations. In various herds included in the associations the records show that by culling out perhaps a third of the cows much milk is taken off the market and a larger profit results to the owner.

Professor Borland of Pennsylvania spoke at length on production, breeding, feeding, etc., in bringing more profit to the dairyman, and the necessity of records to enable one to work out better results. Economical production, it was stated, is the first step towards profitable marketing. He presented figures to show how, by the elimination of a few cows from the herd, there was a considerable improvement in the net profit, and at the same time considerable milk was kept off the market. The low producers not only lost money for their owners but made it harder for all other farmers to make a living. If all of these low producers were eliminated there would be no surplus of milk. No one, not even practical dairymen who best understand the situation, will question this remark.

The sort of bull kept makes a lot of difference. In one case a cow producing 221 pounds of fat, by the use of an inferior bull, had daughters that went down almost to 100 pounds. Next a very good bull was used and the daughters immediately at the first lactation went to over 300 pounds and still another with a better bull produced 447 pounds of fat.

Tuberculosis Eradication

New York is expected to spend

four million dollars for tuberculosis eradication next year. We now have some good herds accredited in this state and something like 112,000 animals. We have a big job ahead in completing eradication. Dr. V. A. Moore said that after a herd is cleaned up testing must be kept up at least once a year. In a few instances testing once in two years may do, but the doctor cautioned that none are so foolish as those who fool themselves. If there has been any considerable number of reactors it is pretty certain that there will be further reactions. Be very cautious about introducing animals that may be infected. Use care in feeding milk for it may be a carrier of infection. If pasteurization is properly done there should be little danger from milk used. Floors may sometimes have to be new. Disinfect with the greatest thoroughness. In shipping know that the car is properly disinfected. Not turn to new pastures where spreaders have been, until ample time, perhaps four weeks, to allow baccilli to die out by drying and sunlight.

Price and Production

There is always trouble over prices observed H. A. Ross of the Department of Economics of the State Agricultural College. Supply and demand are important factors but on an upward market prices usually lag. As soon as the prices do change for the better, the supply quickly increases. For his figures on this he quoted Chicago conditions where in 1913—16 the average production per dairy was 93,000 pounds milk, but owing to low prices there was a drop to 83,000 in 1917 and to 74,000 in 1918. Then with an increase in price, production went up during the next four years to 85,000, 87,000, 92,000, and 96,000 pounds, respectively; and in 1923 to 100,000 largely because feeds went lower. Chicago got too much milk. They are producing too much in winter, especially because they cannot afford to make summer milk, being short of pasture.

Resolutions favoring dairy improvement work of the state, meaning cow testing associations as they are called, and that of improved sires were passed. The plans and purposes for control of tuberculosis in cattle were favored by the meeting. Several who have been prominent in dairy and breeders' associations have passed away during the past year. Among these are George A. Smith, Horace Rees, and Wing R. Smith. George A. Smith was known to dairymen largely for his active work in farmers' institutes and to some extent his later work in the Geneva Experiment Station. While Mr. Rees was understood to be an expert instructor in cheese making, he may have received more attention from the farming public for the big cheeses he made for all sorts of public occasions. Wing R. Smith won his prominence in connection with the Holstein breeders and as treasurer of the national association for many years.

The Banquet

The banquet closing the convention was of the usual sort in one way but somewhat out of the ordinary in another since Dean Cook was toastmaster, and that always means something unusual. Mr. Cook admitted that farmers are having it hard, yet he noticed in his vicinity that the cheaper cars are going out and the more costly coming in. Milk, he said, is of a very high quality and for this he gave credit to New York City, although he deplored some of the work done by their inspectors at times. Evidently he has but little faith in the big co-operative movements, and was inclined to look favorably on the old time co-operative milk plant of years ago.

M. B. Garlock, president of the Eastern States' Producers' Association, claims that after studying co-operation for ten years he is more than ever in favor of the locally owned co-operative plant. The success of co-operation does not depend upon ability to control or monopolize the market. Monopoly leads to abuse. The farmer plants influence payments from dealers. He spoke of the multiple price but thinks that the three classes will, in flush times, be very close together. In November the fluid price may be a hundred per cent above class three. Then he urged for a more even production. We have expected too much from organization. It will still be necessary to develop leadership.

Dorr McLauray urged for a better understanding and more charity. Service he stressed as the highest quality. The world is filled with hate and the problem is how to emerge from it. We try to co-operate, yet farmers are still largely individualists. Mr. Nathans of the New York City Milk Conference Board spoke well and stressed quality as important for high consumption. A fair price to the farmer he holds is desired by the city, one reason being that they are beginning to inquire how they are to be fed twenty-five years from now.

C. F. Bigler is not satisfied with the present milk situation. Groups are pitted against each other. Economy is needed. He inquired whether much does not now go to waste. Sometimes he wonders if we are just trying to hold jobs. Mr. Prestcott thinks we have a bad tangle that needs straightening out. Then he urged the greater use of better sires and the elimination of all scrub sires. Mr. Van Wagmen raised the question whether the gathering was one of dairymen or of a bankers' association. He does not believe in co-operation as against the law of economics. No man lives to himself alone. Whatever else may be said, he does not feel that farmers have ever had a fair share with other people. He does not expect considerable wealth for them but wishes that they might retain enough of the wealth they produce to properly educate their children and to enable them to enjoy something of the finer things of life.

Choosing a Sire

"Future development of the herd," says O. E. Reed, formerly of Kansas, now with Michigan College of Agriculture, "depends to a great extent upon the kind of sire used with the herd." It has been said that the sire is half the herd and it is a fact that all future cows in the herd carry 50 per cent of his breeding.

The herd sire should be a pure-bred of the breed he represents and be backed by good ancestry. If possible he should be a sire whose mother and other close female ancestry have shown high records of production. A yearly record is to be preferred to one of shorter duration.

If it is not possible to know the record of production one should by all means see the mother of the animal in question and note how closely she conforms to good dairy type. If the sire's father has daughters that have proved to be good producers he is more certain to transmit the dairy qualities desired. Very often it is possible to buy an old sire that has proved to be a good breeder. Good results from the use of such an animal are almost certain. The objection to buying an old bull is that he is high priced if his value is known and one runs the chance of getting an unruly animal. A bull calf is usually selected. A calf can be purchased for less money and the owner can train him as he chooses. Too much attention cannot be given to the selection of a sire, for future success depends largely upon the head of the herd."—Kansas Bulletin No. 167.



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This Feed Makes Milk At Less Cost Than Any Other Mixture

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International Special Dairy Molasses Feed is actually worth $15 more per ton than corn or oats for dairy use. Corn and oats feed today is selling $10 per ton higher and Special Dairy costs no more than last year. Can you wonder at Special Dairy's popularity? Twenty extra quarts of milk from every sack is guaranteed in any fair test. Compared with wheat feeds or ground grains, this increase has been secured in hundreds of tests.

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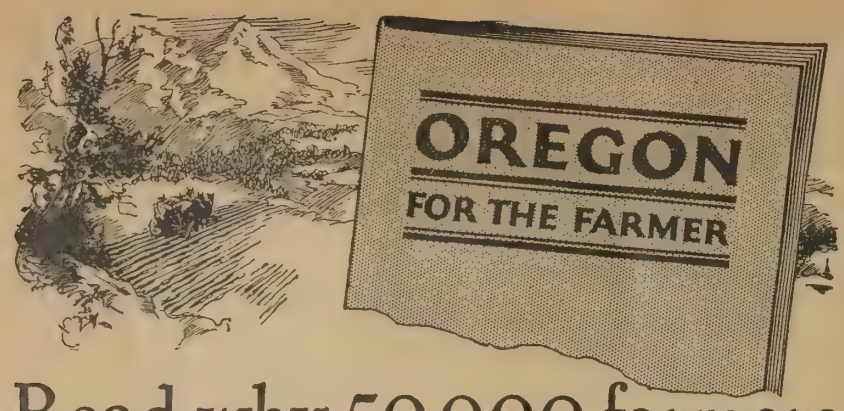
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Metal-to-Metal Construction
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Colonial *Special Farmer's* Salt

"There's a Colonial Salt for every purpose"

Wayside Musings

"Giving Thanks Always For All Things"

JOSEPH S. MORRIS, WISCONSIN

THERE is no finer ingredient of a good character and a gracious personality than the habit of gratitude. And yet it is an easy thing to say the conventional "thank you" for the little courtesies of life and to neglect gratitude for the larger and more important things. There are blessings that come to all and "Gratitude is the natural response of the heart to kindness".

The man whose wife and children are well fed finds a desire springing up in his heart to add to the well-being of others less fortunate than himself. His own contentment leads him to see to it that others who are hungry because of misfortune are fed. If he is warmly clad his sympathy may go out to some other fellow whose coat is worn threadbare and lead him to part with a discarded one, or a secondary one of his own, for the sake of showing his thankfulness in his own warmly clad body. When the friend and enemy of man, fire, destroys a neighbor's home or barn, the man in trouble learns the value of his near friends who have been able to picture his distress and contrast it with their own well being and out of genuine appreciation of what that contrast yields up to come to his relief.

Frequently you will read an article in your home city newspaper or in some magazine that so warms your heart that you make up your mind that you will write a nice note and say "thank you" to the editor. And then you get busy at something else and forget about it and the one who has given you some inspiration never knows what you thought and felt. In another column there are published every week letters that are placed under the heading "Opinions, Brickbats, and Bouquets". Do the bouquets outnumber the brickbats? Probably not. It is quite certain, however, that a large number get good from the paper that they would like to say "thank you" for. Most editors and writers are human and an occasional boost helps them to do better work. There is nothing more stimulating to deeper, better thinking than appreciation for one's effort.

The habit of gratitude is not only a fine attribute of good character, but it is also an ingredient of lasting happiness. The man who beams upon the world because his heart is filled with appreciation for his blessings is in himself a daily blessing to others. Not so with the grouch who seems always to be sour about something and never seems to have anything to rejoice over. You know how it is; you talk to some people and in about a minute you find yourself looking out of the window to make sure that the sun has not gone out of business.

This is a beautiful world in which we live. The ravishing beauty of the first delicate tints of spring that touch tree and shrub, and hill and field; summer with its long days of growth, its fields of waving grain, and its cattle-dotted landscape that seems as if some master artist placed them so that the picture might be the better as it printed itself in the mind; the autumn with its thousand deepened hues and the anthems of the crickets in the fields; winter with its feather-showers of frost and its phantom forms in ice and snow, all bring beauty to the heart that loves beauty, that looks for it, and is thankful for it.

And how about the gratitude for the savory and well-prepared meals that taste so good and bring strength and health and well-being? And as we come to the end of the day and are deliciously tired, how happy it is that we can sink into refreshing slumber, forgetting the defeats and disappointments of the crowded day and lose ourselves in sweet sleep, to awake refreshed, clear-eyed, and clear-brained, ready for whatever the day may bring.

It is one of the most important things in our common life that religion has as an outstanding part of its ceremony the opportunity to express our thankfulness in song and prayer, and in the language of the sacred literature.

"Giving thanks always for all things."

Canada Grading Cream

Gordon W. Tovell, Secretary of the Winnipeg District Milk Producers' Co-operative Association, Ltd., informs us that the provinces of Manitoba, Saskatchewan, and Alberta have adapted a system of grading all cream.

The government of Manitoba has sole charge of the grading of cream in that province and a man is placed at each creamery. He is paid by the government and if the grading of cream does not provide sufficient work to keep him busy, he is supposed to assist in other work about the creamery. Each creamery is assessed to pay the expense incurred by the various graders and it is costing about one-half cent per pound fat.

The grade standards are as follows:

"**Table Cream**—This grade shall include any lot of sweet, clean-flavored, non-frozen cream bought for re-sale for household use. The acidity of this cream shall not be more than twenty one-hundredths (.20%) of one per cent at the time of grading.

"This cream shall be produced under conditions that comply with the special requirements of the municipality in which it is to be sold for consumption.

"**Special Grade**—This grade shall include any lot of cream which is clean in flavor, of uniform consistency, and suitable for making butter of this grade. Its acidity shall not be more than thirty-five one-hundredths of one per cent (.35%) at the time of being graded at the creamery where it is to be made into butter.

"**First Grade**—This grade shall include any lot of cream which is reasonably clean in flavor, of uniform consistency, and suitable for making butter of this grade. Its acidity shall not be more than sixty one-hundredths (.60%) of one per cent at the time of its being graded at the creamery where it is to be made into butter.

"**Second Grade**—This grade shall include any cream that does not meet the requirements specified for the next higher grade; such as cream that is bitter, stale, musty, metallic, fermented, or otherwise unclean in flavor.

"**Off Grade**—This grade shall include any cream with an objectionable odor or flavor, such as kerosene, gasoline, stinkweed, onions, or such flavors that may render cream unfit for making into number two butter."

You'll get Extra Wear
from this live elastic rubber

RUGGED construction makes a lot of difference in the wear of your boots—of course.

But it's every bit as vital to have rubber that won't soon crack and break!

Thousands upon thousands of times your boots are bent and wrinkled. It takes *real live rubber* to stand this constant wrinkling and still *stay waterproof.*

And that's what the rubber in "U.S." Boots will do! No more live and elastic rubber has ever been used in boot construction.

Cut a strip of this rubber from a "U.S." Boot and you'll find it will stretch *more than five times its length without breaking!* And it will snap back into shape every time—like an elastic band.

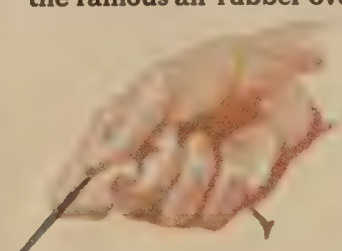
This live, tough rubber means longer wear. Anchored in this elastic rubber are layer on layer of strong fabric reinforcements. Where the hardest strains come there are *as many as eleven separate layers* of rubber and fabric.

They give to "U.S." Boots strength to stand the hardest knocks and strains.

"U.S." Boots wear longer because they're *built* to wear longer. It will pay you to ask for "U.S."

Other "U.S." Rubber Footwear

You'll find every type of rubber footwear in the big "U.S." line. There's the Walrus, the famous all-rubber overshoe—the "U.S." lace Bootee, a rubber workshoe for fall and spring—"U.S." Arctics and Rubbers—all styles and sizes for the whole family. Look for the "U.S." Trade Mark whenever you buy—the honor mark of the largest rubber organization in the world.



United States Rubber Company



"U.S."

Boots-Walrus
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U.S. WALRUS

The Greatest Gift of All!



There is more than passing pleasure in the gift of a Willys-Knight—infinitely more! Such a gift will bring your family boundless joy and happiness, now and in the years to come.

Pride in its distinctive beauty of line and contour—its brilliant performance—its smooth, velvety power. Satisfaction in the amazing quietness, flexibility and economy of the world-famous Willys-Knight sleeve-valve engine.

This is the same type of engine that powers the most expensive, hand-built cars of Europe; the *only* type of engine in the world that actually *improves with use.* Simple, sliding sleeves instead of noisy poppet-valves. The annoyance and expense of carbon-cleaning and valve-grinding are banished forever. Carbon only makes this engine quieter, smoother and more powerful, mile after mile and season after season.

And finally—in addition to matchless beauty, comfort, economy and long life—all Willys-Knight models are now equipped with the famous Lanchester Balancer, which gives Willys-Knight freedom from vibration so common in motor cars.

At the wheel of a Willys-Knight car, you can loll back in the deep, soft, yielding cushions and relax. Driving is as effortless as breathing; steering as easy as turning your head. Control levers are just the proper length. An unusually light pressure operates the foot pedals.

Why not make *this* Christmas memorable? Give yourself and your family a Willys-Knight—a car you can keep for years and years.

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WILLYS-KNIGHT

THE ENGINE IMPROVES WITH USE

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Unsigned Articles

We are in receipt of an unsigned article from a member of the New York Dairymen's League in which he discusses that organization, the price it paid for milk, etc. We do not publish communications unless we are advised as to who writes them. If the author of this article will send us his name, we will be willing to publish his communication over the signature he attaches to it.

Against Child Labor Amendment

HOARD'S DAIRYMAN:—I received this morning your latest issue and I noted in this issue a very important editorial, "Government Control of Children". I am writing to commend that editorial, as it touches on a most vital question of our government, namely, the tendency of Congress to pass laws and adopt constitutional amendments encroaching on the legitimate rights of the states. If this policy continues, the time is not far distant when the principle of the union of states will be practically wiped out, and there will be but one central government. This is absolutely contrary to the theory of our forefathers in establishing a United States. There is a reason why there should be a unity of states, for conditions vary in the several states, and what legislation may be adapted to one locality does not apply to another. Therefore, the sound reason for a severalty of states.

As to the special question at issue, the matter of child labor, that is a matter peculiarly fitting for the local states to determine. In states where there are large manufacturing interests, it may be very proper to have one limit of age, whereas in states where there are agricultural interests, a different limit would be proper. Nevertheless, it seems so ridiculous in any locality to prohibit children under eighteen years from working. If there is anything we need in this country, it is to cultivate the principles of industry and thrift, and the child cannot be taught too early those principles. No thoughtful person will gainsay the value of education, but there is such a thing as carrying it, as many theorists do, too far at the expense of the habits of industry. This is a serious proposition, especially for the farming class, as the average farmer depends largely on the aid of his children for the success of his farm work, and the farmer is the one who usually has a large family, and to deprive him of the services of his children would mean to embarrass him without measure.

It is very well to theorize that this won't be brought about, but you place the law on the statute book, and the very people who are propagating such laws will be ever ready to see that they are enforced, irrespective of consequences. Theorists and visionary people are not amenable to reason.

While I am an attorney, still I am interested in agriculture and know whereof I speak.

I notice that other farming papers are combatting this amendment, and I sincerely hope that your editorial will not be the only one on the subject, but that you will be ceaseless in your efforts against this measure. The legislatures meet this winter, as you know, and there will be a clamor to have them adopt this amendment, and if we who are opposed to it sit idly by, enough legislatures will be secured to make the amendment effective.

Missouri. L. BACON.

McKnight Replies to Wing

HOARD'S DAIRYMAN:—I want to congratulate Hoard's Dairyman for publishing, and Mr. Chas. B. Wing for writing, that very beautiful letter appearing in O. B. and B. columns of Nov. 7. As he asks some questions in it, however, I feel it incumbent upon me to answer them.

Among the questions asked (after he has so splendidly pictured for us the grandeur of the natural scenery of a section of land in the state of Utah) I find the following:

"What hath God wrought? Who owned this great tract? Who owns the blue vault overhead? Who owns the south wind? Who owns the sun's rays that make our planet a comfortable place in which to live? Who owns the rain that refreshes our plants and makes them grow? Who owns the birds and flowers?

He then answers the questions himself by stating that "certainly He who planned the world in all its beauty does * * *". This being true, and because He placed these things here to carry certain messages to us, are they not mine and yours? Is this not wealth that is not capable of being made private property, certainly not transferable, and all the better that it cannot be made so?

Except for the concluding portion of the quotations, I heartily and fully agree with him and with the exception of his last question, each question answers itself by implication, for no one but the Being he indicates can make these things, or can hold a moral title to them.

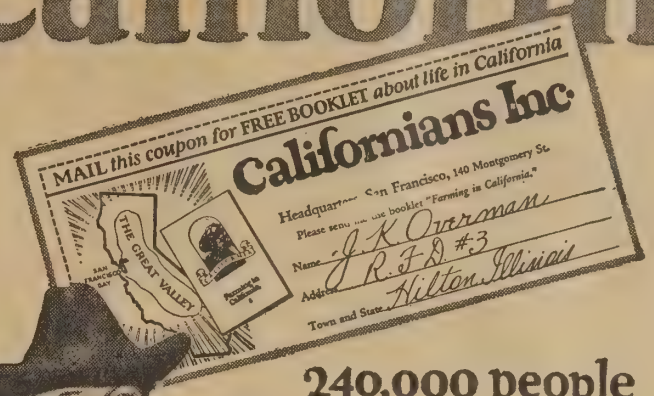
But both He and I are at variance with human law. While possessing no bill of sale or deed of gift from this Being—their proof of a moral title—certain individuals do hold what is called a "legal" title to land, and this title declares them owners of everything under or above the land surface which the legal title says is capable of being made private property and is transferable. He previously said: "It happens that practically all of it is so wild and of so little value, as money goes, that it is the property of the U. S. government."

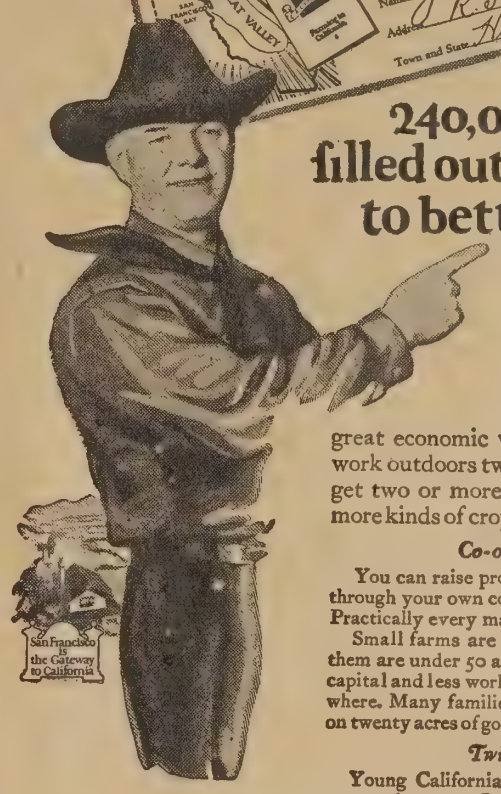
Does not the term U. S. government mean the 112,000,000 of people who live and work in the United States and does it not mean that the only land left as property of these many millions of people is sections like this, so wild and worthless, that it has no money value?

If it is right and just for this wild and worthless, but beautiful, land to remain common property, why not put all land in the same category and allow the 112,000,000 people to collect its yearly bare site value of $7,000,000,000? At one time Manhattan Island had as little money value as the section Mr. Wing describes. If the same number of people ever live and work on that section of Utah land as now live in and around Manhattan Island, the rental value of the Utah land will about equal the rental value of Manhattan Island, or, if it should not, it would only be because of the fact the Utah land will never have a seaport.

Maryland. OLIVER MCKNIGHT.

California





240,000 people filled out this passport to better living

FARMING in California yields greater rewards both in money and in happiness. The smiling, kindly climate of California means more than physical comfort. It has a great economic value. Because of it you can work outdoors twelve months a year. You often get two or more crops a year. You can grow more kinds of crops here than in any other state.

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San Francisco, the headquarters of Californians Inc., is also the trading center of California's Great Valley, 400 miles long, and of the equally fertile valleys of the Coast Range. It is the starting point for every place in California that you will want to go.

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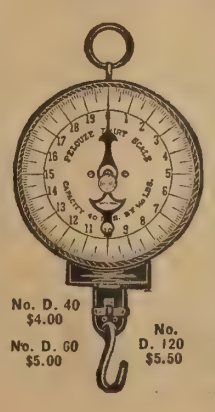
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The D. A. Winslow Company, one of the largest dairy farms in Virginia, experimented alternately with GOLD MEDAL VITAMIN DAIRY RATION and their own carefully balanced home mixture. One barn of cows fed on GOLD METAL VITAMIN DAIRY RATION exclusively (except roughage) produced 691 gallons of milk per day. Changing to their own ration for three days the milk production dropped to 587 gallons. Reverting back to GOLD MEDAL VITAMIN DAIRY RATION the milk production jumped to 622 gallons per day. Mr. D. A. Winslow is convinced that GOLD MEDAL VITAMIN DAIRY RATION is the feed for his herds.

Each GOLD MEDAL FEED is backed by the world-wide prestige of the millers of GOLD MEDAL FLOUR.

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GOLD MEDAL Vitamin Dairy Ration (20% protein)
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GOLD MEDAL Poultry Fattener
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GOLD MEDAL Chick Mash (with dried buttermilk)
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A FEED FOR EVERY FEEDING PURPOSE

Better Cows
Better Feeds
Better Times

Eventually
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Why Not Now?

DAIRY MARKET NEWS

November Condensed Milk

(New York Dairymen's League)

The following table gives the prices paid for 3.5% milk at representative condenseries in several different states:

Territory	1924 Nov.	1923 Nov.	1924 Oct.
Illinois			
Oregon	$1.60	$2.10	$1.60
Dixon	1.57	2.10	1.57
Sterling	1.57	2.10	1.57
Morrison	1.65	2.10	1.65—1.70
Greenville	1.85	2.40	1.85
Effingham	2.10	2.15	2.00
Indiana			
Goshen	1.78	2.21	1.78
Sheridan	1.49	2.10	1.49
Lebanon	1.49	2.10	1.49
Iowa			
Waverly	1.65	2.10	1.65
Kansas			
Mulvane	1.60	2.25	1.60
Michigan			
Sandusky	1.57	2.10	1.57
Howell	1.57	2.10	1.57
Mt. Pleasant	1.57	2.10	1.57
Sparta	1.57	2.10	1.57
Charlotte	1.75	2.25	1.75
Perrinton	1.57	2.10	1.53—1.57
Sheridan	1.57	2.10	1.53—1.57
Cass City	**	2.15	**
Ubly	**	2.15	**
Lake Odessa	**	2.15	**
Wayland	1.70	2.10	1.60
Hudson	1.70	2.10	1.60
Belleville	1.65	2.20	1.60
Coopersville	1.70	2.10	1.60
Ohio			
Marysville	1.65	2.20	1.55
Lodi		2.18	1.90
Delta	1.70	2.10	1.60
Minerva	1.70	2.20	1.65
Orrville	2.50	2.80	2.30
Pennsylvania			
Mill Hall	1.64	2.24	1.64
Spring Mills	1.64	2.24	1.64
Wisconsin			
Monroe	1.57	2.10	1.57
New London	1.57	2.10	1.57
Berlin	*1.53	2.10	1.53
Richland Ctr.	1.53	2.10	1.53
Chilton	1.57	2.10	1.57
Oconomowoc	1.60	2.25	1.60
Jefferson	1.60	2.25	1.60
Sullivan	1.60	2.25	1.60
Juneau	1.70	2.40	1.70
Waupun	1.65	2.35	1.65
Whitewater	1.65	2.35	1.65
Reedsburg	‡		‡
Delavan	1.60	2.25	1.60
Burlington	1.60	2.25	1.60
Valders	†		†
New Glarus	1.65	2.20	1.60
Walworth	1.70	2.60	1.70
No. Prairie	1.60	2.20	1.60
Footville	1.65	2.20	1.60
Albany	1.60	2.25	1.50
Denmark	*1.66	2.21	1.66
Elkhorn	1.65	2.20	1.65

*First half.
‡Ave. 92-score Chicago butter plus 40c.
**Ave. 92-score Chicago butter plus 30c.
†10 times Longhorn cheese plus 10c.

A Three Months' Comparison

In its monthly summary of market conditions the New York Dairymen's League presents the following table, showing the prices per cwt. of 3 per cent milk in the country, deductions for freight being made at the rate indicated when no country station price is reported:

Territory	Freight	3% Milk—Country Nov.	Oct.	Sept.
New York, N. Y.		$3.07	$2.60	$2.60
Baltimore, Md.	$.40	2.62	2.62	2.62
Boston, Mass.		2.91	2.93	2.93
Chicago, Ill		2.20	2.20	2.40
Cleveland, Ohio	.30		2.75	2.75
Des Moines, Ia.	.40	2.25	2.25	2.25
Detroit, Mich.	.35	2.40	2.40	2.40
Hartford, Conn.	.47	3.55	3.55	3.35
Louisville, Ky.	.30	1.70	1.44	1.35
Milwaukee, Wis.	.25	2.00	2.00	2.40
Philadelphia, Pa.	.34	2.60	2.60	2.60
E. St. Louis, Ill.	.29	2.06	1.46	1.31
St. Paul, Minn.	.30	1.95	1.95	1.95
Superior, Wis.	.30	1.95	1.95	1.95
Toledo, Ohio	.30	2.15	2.15	2.15
Washington, D. C.	.48		2.43	2.43

In making comparisons of prices it must be remembered that these are the prices of fluid milk and do not cover any deductions for surplus manufactured milk. It is also to be remembered that for certain cities, such as New York and Boston, the prices are for milk delivered to the country station from which hauling charges are to be deducted. In the case of Milwaukee and St. Paul, and possibly others, the freight deduction shown is the average cost of hauling direct from the farm to the city plant and therefore the prices given are net at the farmer's door for that portion of his supply which is sold as fluid milk.

November Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 111 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributor's plant:

Table—I November Producers' Prices by Geographic Sections

Sections	Range of prices per cwt.	Comparsion of average prices 1924 Nov.	1924 Oct.	1923 Nov.
New England	$3.04—3.87	$3.44	$3.49	$3.71
Middle Atlantic	2.20—3.34	2.85	2.62	3.01
E. North Central	1.57—3.13	2.44	2.44	2.67
W. North Central	1.62—2.60	2.14	2.07	2.50
South Atlantic	2.38—4.94	3.46	3.41	3.59
E. South Central	2.32—3.17	2.79	2.68	2.71
W. South Central	1.75—4.07	2.76	2.70	2.84
Mountain	1.49—3.20	2.42	2.42	2.43
Pacific	1.80—3.02	2.55	2.65	2.75
United States	1.49—4.94	2.73	2.67	2.90

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers:

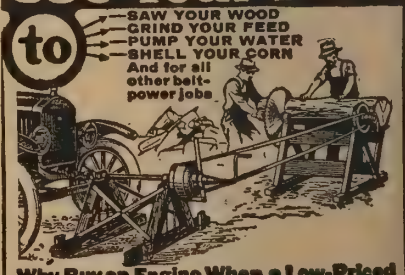
Table II November Producers' Prices F. O. B. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.		17
Pheonix, Ariz.		11—12
San Diego, Calif.	$3.50	14
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	1.92	12
New Haven, Conn.	4.22*	16
Washington, D. C.	3.20*	14
Jacksonville, Fla.	3.84	17—20
Atlanta, Ga.	3.15	17.5
Chicago, Ill.		14
Indianapolis, Ind.	1.75—1.92	12
Des Moines, Iowa	2.85*—2.90*	13
Topeka, Kansas	1.90	10
Louisville, Ky.	2.50—2.64	13
New Orleans, La.	3.04*	14
Baltimore, Md.	3.31*	13
Boston, Mass.	3.87*	14.5
Detroit, Mich.	3.00*	13—14
St. Paul, Minn.	2.50	11
St. Louis, Mo.	2.60	13
Butte, Mont.	2.56	13
Lincoln, Nebr.	1.97	10
Trenton, New Jersey	3.06*—3.17*	12
New York, N. Y.		15
Fargo, No. Dak.	2.10	10
Cleveland, Ohio	3.20*—3.30*	13—14
Tulsa, Okla.	2.45	15—20
Portland, Ore.		11
Philadelphia, Pa.	3.14*—3.17*	12
Pittsburg, Penn.	3.50*	14
Providence, R. I.	3.37*	14.5
Sioux Falls, So. Dak.	2.20	12
Memphis, Tenn.	2.58*—2.80*	15
Dallas, Tex.		15
Salt Lake City, Utah	2.44	10—11
Richmond, Va.	3.81*—4.05*	14
Seattle, Wash.	1.80	9
Spokane, Wash.	2.61	12
Milwaukee, Wis.	2.45*	10

* Basic Prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at produc-

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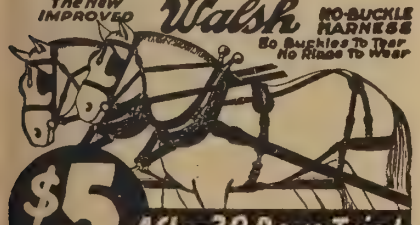
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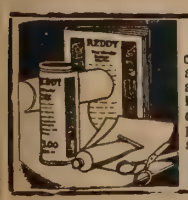
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ers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III November Prices at Country Stations

	At Country Station	Freight zones to which rates apply
New Haven, Conn.	$3.70*	28c rate
Washington, D. C.	2.38*	35c rate
Chicago, Ill.	2.40	All
Baltimore, Md.	2.73*	35c rate
Boston, Mass.	3.05*—3.14*	181—200 mile zone †
St. Louis, Mo.	2.00	34c rate
Trenton, N. J.	2.51*	28—33c rate
Buffalo, N. Y.	3.09*	28c rate
New York, N. Y.	3.00—3.27*	201—210 mile zone ‡
Cleveland, Ohio	2.90*	All
Philadelphia, Pa.	2.57*—2.60*	51—60 mile zone
Pittsburg, Pa.	2.65*	All
Scranton, Pa.	2.65—2.70	30c rate

* Basic prices for fluid milk. † 46.5 rate. ‡ 53c rate.

Table IV gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat:

Table IV November Retail Prices to Consumer

Cities	Special milk per Qt.	Certified milk per Qt.	Buttermilk per Qt.	Cottage cheese per Lb.	Light cream† per ½ Pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
New York	18—30	28	11		29
Albany	18	27	10	10	17—20
Baltimore		30	13	15*	16
Boston	18	25	10		
Buffalo	15	27		12*—15*	22
Chicago	17—23	25	10—20	15*	16
Cleveland	18—25	30	12		15—20
Denver	14		8	15*	13—14
Des Moines	15—25		10	14	13—15
Detroit *	25	25			16
Hartford	17—20	25—35	10		18
Indianapolis	14—16		9—10	20	13
Kansas City	15	25	10	10*	10—15
Lincoln	13	20	10	15*	10
Louisville	17	24	9—13	15*	16
Miami	30	35	15		25—30
Milwaukee	13—18	25	6	9—10	12—14
Minneapolis		20—22	12—13	12*	15
New Orleans	18	30	13	15*	17
Philadelphia	14—15	30	8—12		15—20
Portland		20	11	15	15
Richmond	18		8		14
Salt Lake City	15		7	15	14—15
San Francisco		25	14	20	18
Seattle		20	20	15	14—15
Spokane	15—18½		10—12		12—14
St. Louis	18	25	10	15	17
Trenton	16	30	12		13—14
Washington		30	14—15		17

* 12 oz. package †18—25% fat

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were steady to firm during week ending Nov. 22. Trading was active at primary markets, although somewhat slower at distributing centers. Distributors, however, were confident and holding to asking prices. Lighter production has cut down receipts and to some measure strengthened the feeling.

The average wholesale prices on American cheese, style Twins, for the week ending Nov. 22, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Nov. 22 1924	Nov 15 1924	Nov 22 1923
	Cts.	Cts.	Cts
New York	21.5	21.0	25.2
Chicago	19.1	19.1	23 2
Boston	21.5	21.5	26.5
San Francisco	19.6	19.8	26 2
Wisconsin Boards	18.8	18.7	22.8

The receipts of cheese at these markets were 3,329,469 lbs. for the week as compared with 3,612,631 lbs. last week and 3,461,713 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were firmer and higher during the week ending November 22. Principal feature was continued scarcity of fine grades. Greater interest in storage butter, and withdrawals heavy. Production is still decreasing. Foreign situation is about steady with trading slow. No export or import movement of consequence.

The average wholesale prices on 92-score butter for the week ending Nov. 22, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Nov. 22 1924	Nov. 15 1924	Nov. 22 1923
	Cts.	Cts.	Cts.
New York	44.0	41.2	52.9
Chicago	43.6	39.0	51.6
Philadelphia	44.0	41.6	53.5
Boston	43.0	39.5	51.5
San Francisco	39.1	38.5	46.6

The receipts of butter at these markets were 8,467,466 lbs. for the week as compared with 8,579,391 lbs. for last week and 9,372,967 lbs. a year ago.

League's October Pool Price

The October gross pool price of the New York Dairymen's League per 100 pounds for 3 per cent milk at the 201—210-mile freight zone was $1.95. The total expenses were $.09 and deductions for certificates of indebtedness 10 cents per cwt. The net pool price, therefore, is $1.86 and the cash distribution $1.76.

CHICAGO, Dec. 2—Butter market here was easy, with prices unchanged to ½c lower, with dealers inclined to press sales, while demand was slow. Boston was unchanged, with New York ½c higher and Philadelphia 1c higher, offerings in the latter two markets being light.

Cheese markets were firmer, with asking prices here 1@1½c higher.

Fresh eggs sold fairly at unchanged prices. Receipts were 2,013 cases. Sales of 225 cars refrigerator standards for December delivery were made at 37¼@37⅞c. The Chicago Mercantile Exchange started future trading in butter and eggs five years ago yesterday and the speculative feature of the market has proven of great benefit to the entire country.

MILWAUKEE, Dec. 1—Creamery, extra, tubs, 49c; standards, 40½c; extra firsts, 44@45c; firsts, 42@44c; seconds, 38@40c.

Eggs—Fresh gathered, firsts (new cases, including cases) candled, 55@56c; miscellaneous lots, shipping cases returned, candled, 52@54c; seconds, dirties, 30@31c; checks, 29@30c.

Cheese—American full cream, Twins, 19@19½c; Young Americas, 20½@21c; Longhorns, 20½@21c; Daisies, single, 19½@20c; squares, 21½@22c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

FOND DU LAC, Wis., Nov. 28—Average cheese prices (majority of sales), f. o. b. shipping point: Single Daisies, 20c; double Daisies, 19½c; Longhorns, 20c; square prints, 22½c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Nov. 29: Single Daisies, 19¾c. On Farmers' Call Board, Nov. 28: Single Daisies, 19½c; Longhorns, 19¾c; square prints, 22c.

NEW YORK, Dec. 1—Butter—Quiet; receipts, 5,856 tubs; fresh supply, 17,860 tubs; creamery extras, 46½c; specials, 47½c.

Eggs—Quiet; receipts, 4,463 cases; fresh supply, 71,987 cases; white, fancy, 73@74c; fresh firsts, 54@67c; western whites, 38@72c.

Taking Ways of Doctors

"You're lookin' bad, Wullie."

"Aye, I've been in the hospital an' the doctors have tooken awa' ma appendix."

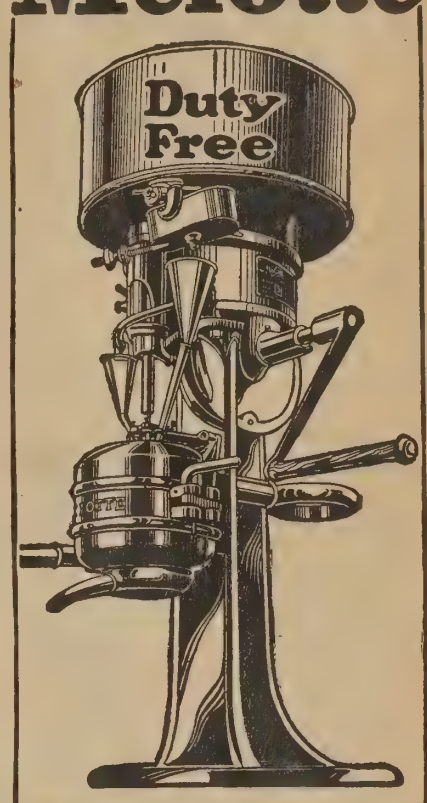
"These doctors'll tak' anything. It's a petty ye didna' have it in yer wife's name."—Everybody's Magazine.

Carload Prices of Hay, Straw, and Feed, Nov. 22, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26.50	27.00	.....	21.00	21.50	26.00	26.00	23.00	18.50	24.00	18.00	24.00	.....	16.25	
No. 1 Clover, mixed	20.00	.....	.....	19.00	17.50	.....	.....	.....	16.50	.....	16.50	.....	.....	14.50	.....
No. 1 Clover	.....	.....	.....	19.00	.....	.....	.....	.....	18.50	17.00	.....	20.50	.....	15.50	.....
No. 1 Alfalfa	.....	30.00	.....	.....	.....	35.00	30.00	27.00	27.00	23.00	23.00	25.00	17.00	21.00	26.00
Standard Alfalfa	.....	25.50	.....	.....	.....	30.00	28.00	25.50	.....	20.00	20.00	23.00	15.50	18.75	25.00
No. 2 Alfalfa	.....	23.50	.....	.....	.....	24.00	25.50	22.00	24.00	15.00	16.50	20.00	13.50	16.00	23.00
Oat Straw	13.00	.....	14.00	12.00	14.50	.....	.....	.....	11.00	9.50	9.00	.....	7.50	.....	.....
Feed—Bagged															
Wheat Bran															
Spring	33.50	.....	33.50	31.50	31.50	35.00	.....	.....	.....	28.00	26.25	.....	.....	.....	.....
Soft Winter	35.50	.....	35.00	32.50	34.00	35.50	.....	29.50	32.00	.....	.....	28.50	.....	.....	89.00
Hard Winter	.....	.....	34.50	32.00	...	35.00	.....	29.00	31.50	28.00	.....	28.00	25.00	.....	.....
Wheat Middlings															
Spring (Standard)	35.00	.....	35.50	.....	33.00	41.00	.....	.....	35.50	31.50	28.75	.....	.....	.....	.....
Soft Winter	41.50	.....	41.00	39.00	33.50	43.00	.....	.....	37.50	.....	.....	35.00	.....	.....	47.00
Hard Winter	.....	.....	.....	39.00	.....	40.00	.....	.....	37.50	.....	.....	33.50	32.00	.....	.....
Wheat Millrun	36.25	.....	36.00	.....	.....	38.00	.....	.....	.....	.....	29.00	.....	.....	.....	39.00
Rye Middlings	.....	.....	.....	33.50	.....	.....	.....	.....	.....	.....	26.50	.....	.....	.....	.....
High Protein Meals															
Linseed	52.00	.....	51.25	50.50	.....	.....	.....	.....	49.00	47.00	45.00	48.50	49.00	.....	48.00
Cottonseed (41%)	48.00	.....	47.00	44.75	46.25	.....	.....	38.50	43.00	43.50	44.50	42.00	.....	.....	.....
Cottonseed (36%)	45.50	.....	45.00	43.25	44.00	36.00	.....	36.50	41.00	41.25	42.50	39.50	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	.....	60.00	.....	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	32.00	.....	.....	27.00	29.00	26.50	.....	25.00	25.00	.....	30.00
Gluten feed	46.95	.....	46.90	43.70	45.50	.....	.....	.....	42.70	39.80	43.00	.....	.....	.....	.....
Hominy feed (white)	47.50	.....	47.00	.....	43.00	48.00	.....	.....	44.00	44.00	.....	41.00	41.00	.....	.....
Hominy feed (y'llow)	46.50	.....	45.75	.....	42.50	48.00	.....	.....	44.00	42.00	37.50	.....	41.00	.....	53.00
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	.....	41.00	.....	.....	.....	37.00
Dried Beet pulp	.....	.....	.....	.....	38.00	.....	.....	.....	.....	.....	32.00	.....	.....	.....	.....

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$7.50 after 30 Days Free Trial

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How many cows do you milk?.....

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Iowa Cow Tester Successful Club Leader

In its first year the dairy calf club organized and supervised by an Iowa cow tester, R. C. Munkwitz, not only won a total of $368.50 in prize money, but also brought state and national honors to itself. In this club there are fourteen boys and seven girls, and the breeds are represented as follows: Holstein 11, Guernsey 6, Ayrshire 3, Jersey 1. These boys and girls not only own and appreciate good stock, but they are learning many facts which will help them become leading dairymen in the future.



WINNING BLACKHAWK COUNTY CALF CLUB MEMBERS

Left, the demonstration team—Richard Sucher, 12 years old, and Helen Cunningham, eleven years old. They won honors at Iowa State Fair, Waterloo Dairy Cattle Congress, and National Dairy Show. Upper right shows them giving their demonstration—"What a Cow Testing Association Is and Does". They were coached by R. C. Munkwitz, and A. A. Burger, county agent. Lower right—Harold Bauer, Guernsey calf club winner and a member of the club judging team.

Junior judges in this club placed well in county and state contests. The demonstration team representing the club won second in a class of more than 82 demonstration teams at the Iowa State Fair, and later won first at the Waterloo Dairy Cattle Congress and finished the season by placing third in competition with sixteen other states at the National Dairy Show.

One of the members of the club, Harold Bauer, won the champion showman's prize in Guernseys, and another member, Louis Frost, won the first prize in the Ayrshire showman's contest. The Guernsey won second best showman honors in all breeds and the Ayrshire won first for the best fitted calf at Waterloo.

In the cow testing association demonstration, Richard Sucher explained the value of a cow testing association and what this organization accomplishes. He then went on to explain how the cow tester could help the dairymen in the selection of dairy cows. The second part of the demonstration given by Helen Cunningham went into details of the Babcock test as follows:

"When you belong to an association, your tester visits you once a month. He weighs the milk from each cow night and morning, taking a small sample at each milking. He also weighs the feed each cow gets and in the evening discusses with you the relative value of feeds and the necessity of feeding according to production as well as assisting in any problems that may arise within your dairy.

"In the morning he mixes well the composite sample and proceeds to determine the quality of the milk of each one of your cows. He does this by drawing up 17.6 cubic centimeters of milk into a pipette and depositing it into a milk test bottle. To get best results, milk should be at room temperature. He adds to this 17.5 cubic centimeters of sulphuric acid which is one of the strongest acids. Too much acid tends to burn the milk forming dark curd which prevents a perfect test. Too little acid will force all the fat from the other ingredients of milk or leave curd undissolved.

"Notice acid is much heavier than milk. When water is considered as 1, milk is about 1.03 times as heavy and this acid is 1.83 times as heavy. As this mixture changes color it becomes very hot, almost too hot to apply one's hand.

"The milk is now placed into a test or centrifuge where it is whirled for five minutes. This whirling motion acts very much as the bowl of a separator in the separation of cream. There is great pressure within the bottles and the butterfat rises to the top, the heavier contents being thrown to the bottom. When in full motion, there is a pressure of about 35 pounds per square inch on these bottles.

"After whirling the bottles for five minutes, hot water is added to aid the separation of the fat, after which the bottles are again whirled for two minutes so as to get the fat together in a smaller area.

"The water added to the mixture of acid and milk should be at a temperature of 130—140 degrees. This will give the butterfat a clear golden appearance. Enough water is now added to bring the fat into the neck of the bottle. It is whirled for another minute so as to get it all into the graduated portion of the bottle. The bottles are then removed and placed in a hot water bath to give added assurance that all the fat is collected in the neck of the bottle and keep it at proper temperature. After several minutes the chemical analysis is complete and the actual value of the cow's milk can be computed.

"Here is a sheet upon which the tester calculates production, feed cost, and gain over feed cost for each animal in your herd. In fact, he is your bookkeeper or accountant, keeping accurate account of your cows to determine what they are doing for you.

"To add to the accuracy of the work, it is advisable to have a barn record of each day's production. In this manner you can immediately tell when an animal is sick or falling off in milk and often an impending danger can be avoided.

"In this herd book an accurate record of each cow is recorded every month and totaled at the end of the year when a summary shows just what each cow has cost you and what she has paid you for her keep. It also shows what it cost you to produce a pound of butterfat and a hundred pounds of milk."

Raising Pigs and Calves

Bernard and Edmund Downey, Iowa, are two farm boys who are planning to stay on the farm. Their interest in farm work has come about largely because their father and mother have permitted them to own some pure-bred hogs and because they have gotten started in the dairy business with some pure-bred heifers of their own. These boys have belonged to the Lee County, Iowa, pig club for four years and during this time they have sold about $1,200 worth of hogs.

"I am a 14-year-old Pig Club boy and a charter member of the Lee County, Iowa, Hampshire Pig Club. I have been a club member for four years," says Edmund Downey.

"I joined the pig club because I thought I would like to have a pig of my own and learn to care for it and be able to make some money for myself. For my first pig I fixed a lot where she might have plenty of grass and exercise. I fed her an ear of shelled corn, a quart of oats, and one-fourth of a gallon of skimmilk twice a day and increased the feed in proportion as she grew older. I sold her for $60.

"The next year I joined the sow and litter club and fed my pig as before until breeding time. After she was bred I added to her feed raw potatoes and alfalfa hay. A few days before farrowing I shut her in a pen and fed her oats and water and after farrowing gave her nothing but warm water for the first twenty-four hours. After that I fed her the same as before and in thirty days turned her and the pigs on pasture and gave the little pigs skimmilk in a separate trough. I almost forgot to tell you how many pigs there were—an even dozen little belted beauties.

"During my four years of pig club work, I have raised and sold twenty-seven pigs which gave me a total of $270. This money I have used to purchase other pigs and the rest I put in the bank. I now have a bank account of over one hundred dollars.

"Once a year we have a county pig club picnic, where all the pig club boys and girls in the county and a large number of business men and other people from outside of the county come to celebrate. I have jolly good times at these yearly picnics. My brother was awarded a $250 Ayrshire calf for showing the best litter, and I won a silver loving cup and ten dollars in cash for having the best individual gilt among the 400 shown. We have all kinds of good eats at our picnic, good speaking, games, races, and amusements of all kinds.

"My partner is a business man from Keokuk by the name of James M. Fulton. I have met him several times and he is very much interested in my work and has been kind to me. Our club work has taught me many things. The importance of sanitation, keeping pens and lots clean, what feeds to use to produce economical gains, and also that it pays big dividends to be on the job at farrowing time.

"You older folks have no idea of how proud I am of my pigs. It makes me feel proud to know that I own something of my own which is making money for me and it gives me ambition to do better and bigger things."—Hampshire Swine Record Association.



THESE BOYS HAVE A GOOD START FOR A SUCCESSFUL DAIRY FARM

Edmund (left) and Bernard Downey have brought pure-bred pigs on their father's farm through club work. They each own a pure-bred heifer and are planning to buy a pure-bred bull and build up a herd. James Fulton, a business man, is sponsor for their club work. He is standing on the right. On the left is L. J. Wolfe.

Connecticut Boy Dairyman Makes Good Record

What can be accomplished with *good* cows given *good* care has been demonstrated by Arnold Manning, a Connecticut dairy farm boy and club member.



ARNOLD MANNING, CONNECTICUT BOY DAIRYMAN

Arnold is 15 years old. His project from Aug. 1, 1923, to Aug. 1, 1924, was to feed, care for, milk, and keep records on four pure-bred Holsteins; two of them heifers with first calf and the other two with second calf. These four animals made an average production of 11,176 lbs. of milk on twice-a-day milking for the year. Not a record to be ashamed of by a long ways. In keeping his production records, Arnold used Hoard's Dairyman milk record sheets.

The record is the more remarkable because the animals were housed in an old barn without modern conveniences, had poor native pasture, and received no silage and no legume hay. They were fed the Eastern States grain ration which contains the following: cocoanut, peanut, cottonseed and linseed oil meal; wheat middlings, bran, corn meal, molasses, ground

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oats, gluten feed, salt, and bone meal.

This is only Arnold's second year in dairy club work. He is a born cow man and knows pedigrees from A to Z. He has been very regular in his attendance at dairy club meetings. J. A. Simms, extension animal husbandman at the Connecticut Agricultural College, is confident that Arnold, if he keeps up his present pace, will develop into a splendid dairyman. In the meantime, he is causing not a few older breeders to sit up and take notice.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Let us consider the editorial pages (606 and 607) in the November 28 issue of Hoard's Dairyman. There are some good lessons to be learned there each week and we hope that, although we do not often discuss them in this column, you juniors are thoughtfully reading these pages.

How does the 1924 corn crop in the United States compare with 1923? There are about 500 million bushels less this year and the corn is poorer in quality.

How should the new born calf be fed? See that the calf sucks each of the four teats a little at its first meal. A quart of milk three times a day is enough for the first three or four days. Whole milk should be fed for nearly a month.

How successful a silage combination are pole beans and corn? The Rhode Island Experiment Station tried the Horticultural pole bean and the Kentucky Wonder with excellent results. The vines of these legumes climb the corn stalks and are more easily harvested than soy beans grown with corn. Test plots yielded as high as 20 tons to the acre, of which 4 tons were beans. Best results were obtained from planting the beans by hand in check rowed corn after the corn was 3 or 4 inches high.

What is the value of beans in corn silage? They are rich in protein, and they also add to the total tonnage of silage per acre.

Give Mr. H. E. Hazen's experiences with alfalfa. This Iowa dairyman for the past four years has pastured a ten-acre field of alfalfa to hogs, horses, and cattle. It has given a pasture that cannot be beaten and helps with the hay crop. The first cutting which usually comes at a very busy and rainy time has been delayed several weeks in this way and a finer hay has been made.

Junior Letter

Another Canadian Junior

Hoard's Dairyman Juniors:—I joined the Hoard's Dairyman Juniors a few months ago, but this is the first time I have written to you. I read the Junior Page every week and like it very much. You asked me if I belonged to any club. I do not. We have girl guides here but the leader is not living here just at present so I can not join.

I passed into entrance class this June. I was never in grade six at all. I have three Honor Rolls. One for proficiency which I got in grade seven. One for deportment which I got in grade four, and another for proficiency which I got in grade two.

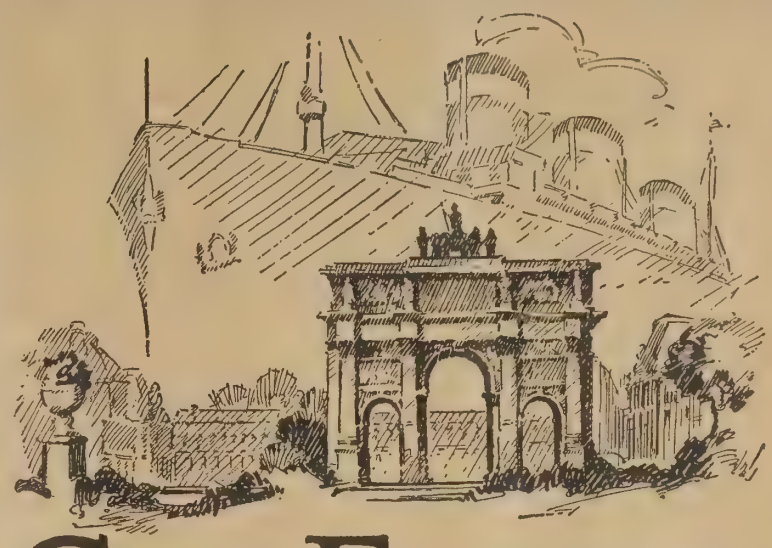
We live about two miles from town. The train only comes three times a week, Mondays, Wednesdays, and Fridays. We have a tomato cannery here.

We live at the mouth of a small canyon. I have a tent further up where I built fires and sometimes cooked my meals, although I did not sleep there.

I have a little colt named Lassie about six months old.

I would like some of the juniors to write me; my address is Cawston, B. C., Canada.

Nan Steele.



See Europe *this* Winter for only $12.50 a day

WHY don't you make that dream of a European trip come true? Europe is not far away. The trip need not be costly. This winter you can see rejuvenated Europe in all her grandeur. Return refreshed in mind and body with the biggest, broadest education in the world. The trip can be made in six weeks and it need cost only $12.50 a day.

Your government has prepared two booklets especially for those people whose dreams of European travel seem far away. They will be sent to you free—if you send the coupon below. The first tells of costs and places to see. It is the combined knowledge of hundreds of experienced travelers and tells how to see the places you have always dreamed about with a maximum of comfort but with a minimum of expense. The second booklet tells of life at sea, customs, how to secure passports, visaes and all the other things that make traveling abroad different than traveling at home.

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STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Son of Matador Segis Walker from year record daughter of Johanna McKinley Segis for sale. He is three quarters brother to Matador Segis Walker 6th. 4 years old and guaranteed to be right in every way. We have 25 of his daughters in our herd which is federal accredited. GLEN RAMSEY, Fort Atkinson, Wisconsin. 18-4

For Sale—My entire herd of 70 high grade Holsteins, own raising. Must sell at once. Bargain. Would exchange for high grade Guernseys T. B. tested. Am going in the bottle milk business. MEURER'S STOCK FARM, Genoa City, Wis. 20-*

Registered Holstein bulls and heifers, one to twelve months. PAT WALSH, La Valle, Wis. 20-2

For Sale or Trade—Two 1000 yearly record bulls for grade or pure-bred cows. OSCAR WESTERHEIDE, New Douglas, Ill. 20-*

Registered Holstein bulls and heifer calves. Homestead and Matador breeding, $30 and up. O'CONNOR BROS., Watertown, Wis. 21-6

Pure-bred Holsteins—Two bred 2 year olds, four 6 months old heifers. Good breeding, from a clean herd. Shortage of feed. W. C. ROSENOW, Sherwood, Wisconsin. R. 1.

Holstein Bull Calves from large dams. Cheap. Herd under federal supervision. FARMOSA FARMS, Garden City, Missouri. 21-4

Western Dairyman—for sale, one hundred seventy-five high grade Holstein cows and heifers. Seventy-five dollars carload lots. WILLIAMS BROS, Lamar, Colorado. 21-6

For Sale—My herd of 29 Holstein cows, 9 pure bred. Some close, some due in January, February and March. Present milking 500 lbs. per day. Will sell for $100.00 each. Address JOSEPH McDONOUGH, 168 N. Ann St., Chicago, Ill.

Registered Guernsey heifers and bull calves. FAIRVIEW FARMS, Brodhead, Wis. 13-*

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

Two Serviceable Guernsey bulls for sale whose dams and sires' dam average 705 lbs. fat. HOMER RUNDELL, Livingston, Wis. 18-*

City View Farm offers for sale Guernseys, male and female, of all ages; May Rose Langwater breeding out of good A. R. dams Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 20-*

Pure-bred and high grade heifers and calves for sale. Also high grade Guernsey cows. A. B. RAYBURN, R. 3, Litchfield, Minn. 20-3

35 Serviceable Guernsey bulls for sale. Priced to sell. JEFFERSON CO. GUERNSEY ASSOCIATION, Fort Atkinson, Wis. 19-Spl.

Registered Guernsey Bull Calves. A. R. breeding. Forty dollars up. B. McADAM, Mosinee, Wis. 15-spl

For Sale—3 grade Guernsey heifers 9 to 18 months old. Sire, grandson of National Grand Champion. FRITZ D. ANDERSON, Whitewater, Wis.

Serviceable Jersey Bulls. Hood Farm Breeding. Record dams. $100. Accredited herd. RALPH CONSTANCE, Waupaca, Wisconsin. 21-4

Jerseys—All ages, both sex. Mulefoot boar. B. KENNEDY, New Lisbon, Wis.

Sunny Crest accredited Jersey bulls 7 to 17 months, $30 to $60. Few heifers. M. EMERSON & SON, Wheeler, Wisconsin. 19-Spl.

STOCK WANTED

Wanted—Thirty high grade Guernseys, young and T. B. tested. State best cash price; must be a bargain. MEURER'S STOCK FARM, Genoa City, Wisconsin. 20-*

Wanted—30 to 40 lb. Holstein bull. Light service. Acredited herd. No abortion. State particulars and price delivered to Jersey Shore, Pa. M. Z. YOUNG.

Wanted—10 grade Guernsey springers. Must be heavy producers from 4 to 6 years. Should like to buy on terms and give mortgage on cows or good note. Address BOX 372, care Hoard's Dairyman.

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First cutting baled alfalfa hay cured in cocks under cover in field. Price $21.00 per ton, F. O. B. Fort Atkinson, Wisconsin. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 21-2

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Lespedeza Seed, recleaned, $5.00 bushel. J. F. BLANCHARD, Brighton, Tenn. 20-2

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Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

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For Sale—Three De Laval milker units, nearly new, good rubber. Bargain. WALCOWIS FARMS, LAKE GENEVA, Wis. 21-*

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Few choice big type Poland China March boars, shipped on approval. $30.00. OLOF C. OLSON, Strum, Wisconsin.

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For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

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Improved farms in Minnesota and North Dakota can be purchased on 34 years time, without any cash payment, by persons who have their own help, equipment and livestock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Ry. Co., St. Paul, Minn. 18-*

160 acre dairy farm right on the Jefferson Highway in upper Minnesota. Well improved, excellent soil, good drainage—only $41.50 per acre, $500 cash, balance at 3%. Write for our plans under which this farm will pay its way and make you independent. MERCHANTS TRUST AND SAVINGS BANK, St. Paul, Minnesota. 18-4

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First reasonable offer takes the 1,250 acre farm. Has made over 100 bushels per acre. Good buildings, near town. Address owner, J. A. HINSHAW, Pleasantview Apartment No. 2, Kansas City, Missouri. 20-3

For Sale—460 acres; 40 miles from Chicago. Farm consists of 200 acres of fertile, heavy producing, black soil, under high state of cultivation. 260 acres Blue Grass and Oak Timber. 2 modern dwellings; 2 other good dwellings; 2 concrete silos; barn and other outbuildings erected in 1922. Full equipment of new farm utensils. Ideal plant for feeding and dairying. You would have to see this farm to appreciate its value. R. W. COOPER, Owner, Gilberts, Ill. 15-spl.

Makes more money on a small farm in San Joaquin Valley, California, where you can work outdoors all the year. Splendid opportunities here for the man of moderate means. Twenty and forty acre farms produce alfalfa abundantly. Dairying, hogs and poultry make good returns; and staple varieties of fruits yield dependable profits; a combination of these means a well balanced farm with good income throughout the year. Winterless California offers much to the man looking for a country where he can get the most out of life. Climate is delightful with long growing seasons; wonderful roads; excellent schools. Nearby markets and co-operative marketing associations afford profitable outlets for all produce. A small one family farm, cutting out high labor costs, insures success. There are no winter handicaps. San Joaquin Valley illustrated folder mailed free on request. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Ry., 951 Railway Exchange, Chicago, Ill. 21-Spl

For Sale—120 acre modern dairy farm 1 mile from railroad station with two banks, 25 miles from Springfield. Pop. 50,000. On State Highway both to station and Springfield. 3 houses, silo, modern barn 48 by 74 ft. with drinking cups, steam in milk house. In fine shape, ready to make money. With or without registered Holstein herd, horses and machinery complete. Good soil. A. J. Mc DOWELL, Owner, Fordland, Missouri.

Equipped Farm—Only $2200. New house and 500 fruit trees. Popular resort district, excellent local markets; 100 acres, close school, church, depot town; smooth, loamy fields; trout stream through pasture, wood, timber; 500 sugar maples, equipped sugar house; 500 apples, plums, cherries, grapes; recently built 6-room house in maple grove, porch; barn, poultry house. Owner called away, low price $2,200, horse, cows, implements, tools crops thrown in. Details pg. 51 big Bargain Catalog, illus. money-making farms and business chances. Free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

FOR RENT

Wanted—Renter on half shares for 120 acre farm. Good land, good buildings. Must be good hand with cows, also good farmer. I furnish cows, renter must furnish horses and machinery. Possession March 1. W. A. CANNIFF, Watertown, Wis.

For Rent—Dairy farm, 432 acres. Located at city limits, Beloit, Wisconsin. DON VAN WART, Agent, Beloit, Wis. 21-4

For Rent on Shares—Dairy, hog and chicken farm, 80 acres. DR. ARTHUR G. CATT, Rensselaer, Indiana. 21-*

MISCELLANEOUS

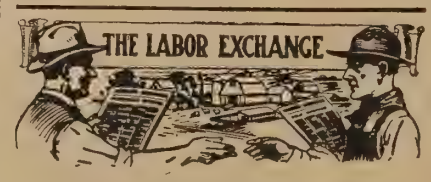
Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

Milkmen—Use Fiske's Loose Leaf Route Book. Write for description. P. BAKER FISKE, Attleboro, Massachusetts. 19-3

Cash for old postage stamps on the envelope preferred, issue prior to 1870. Best are 1847 to 1860. Look in the attic for grandfather's letters. Send me for price. Cash or return if not satisfied. Write today. E. C. LAMPSON, Jefferson, Ohio.

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accomodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Will make a fine Christmas present. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 21-3

Wanted—Milk bottles, plain or marked. D. M. WHITE, Bath, New York.



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Mail Service Employees Needed. For instructions write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 16-*

Wanted—Single man for general farm work; with good habits and references. Guernsey cattle, good equipment. HARVEY LONGLEY, Dousman, Wisconsin. 19-spl

Wanted—Single man for barn work. Guernseys. State wages wanted, experience. References. SHOREWOOD FARM, Crystal Bay, Minn. 21-2

Wanted At Once—First class dairyman, good milker, kind to stock, working foreman. No liquor or cigarettes. PAUL WHEELER, Durham, N. C.

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150—$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 21-4

Wanted—Two young men. Must be good milkers, clean habits and reliable. Position open at once. Excellent wages and living conditions. GRUEL BROS, Hobart, Indiana. 21-2

Wanted—A good herdsman and two good dry hand milkers. Wages $60.00 to $80.00 per month and board. J. H. MILLNER, R. 5, Norfolk, Va.

HELP WANTED

Wanted—Experienced dairy farmer to work farm on 150 acres on fifty-fifty basis. Landlord will furnish all seed, all cows—about twenty-five head pure-bred Holsteins. Also will furnish new tractor with plough and discs, lime sower and ensilage cutter. Also one hundred chickens, more or less. Good house, hot and cold water, Delco lighting system throughout house and barns. Land very fertile and productive. Tenant to furnish teams and other necessary working tools. Also must furnish sufficient help to handle the work this season. Tenant has one-half milk check and one-half increase of herd together with house and good garden. None but sober, industrious man need apply. Must furnish good references. Farm located at Ithaca, N. Y., three miles from Cornell University. Possession given April 1, 1925. Address BURTT BROS. at Lockport, N. Y.

Wanted—Married man to look after young stock and do some milking. State age, size of family; experience. Give references. Modern equipment. FOUR PINE FARM, Hinsdale, Ill. 21-

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright St. Louis. 8-

Position Wanted—Experienced dairy farm manager wants position on up-to-date dairy farm. Willing to take a real proposition on a profit sharing business. Thoroughly experienced in purchasing herds and erecting modern buildings. Now managing the largest dairy farm on eastern shore of Maryland producing certified milk. Address W. A. SIMPKINS, Salisbury, Maryland. 18-

Position Wanted—Herdsman. Efficient fitter for production, show or sale. Experienced in A. R. C. work and practical farmer. Good, dependable Scotchman with best of references. Address BOX 354, Care Hoard's Dairyman. 19-spl

Position Wanted—By a married man, twenty-one. Expert feeder and fitter for show and test, good dry hand milker, calf raiser, produce certified milk. Prefer Jerseys or Guernseys. Open Jan. 1st. Use no tobacco nor liquor. J. J. PAINE, R. 2, Box 108, Columbus, Ga.

Middle-aged man, single, wants place on dairy farm. Life experience. J. H. ROSENKRANS, Albany, Illinois.

Position Wanted—Manager or herdsman. Married, age 33. Wide experience in A. R. work, show ring, certified milk, familiar with all farm and dairy machinery. World record's backing. Best of references. Address BOX 370, care Hoard's Dairyman.

Wanted—Position as farm manager—no proposition too large—20 years experience in farm management and County Agent work—graduate of Wisconsin College of Agriculture (long course), experienced breeder of Holsteins. Have bred and developed some of the good cows of the breed. Capable of handling all branches of farming, including cattle, hogs, poultry, orchards, fruit and general field crops. American, age 40, married, salary and commission or straight salary. Address BOX 359, Care Hoard's Dairyman. 21-

Position Wanted—On dairy farm by experienced dairy farmer, 30, 2 children. State wages, etc. Address BOX 368, care Hoard's Dairyman.

For a well qualified farm manager or herdsman thoroughly experienced in all phases of the management and development of a herd of high class producing Holsteins, write at once to BOX 369, care Hoard's Dairyman. 21-

Herdsman—Position wanted by Dane, single, experienced breeder. State wages paid. Address BOX 8, Zimmerman, Minn.

Wanted—position as test cow milker, or general milker where milking machine is used. Address BOX 371, care Hoard's Dairyman. 21-

Raises Calves Successfully

HOARD'S DAIRYMAN:—Your articles at various times on feeding and raising calves are very interesting. I might interest you to know that since June, 1915, we have raised from six to eight calves each year without losing even one. The calves were, with three exceptions, all Holsteins, most of them pure-bred. There was one grade Jersey and two grade Guernseys. Two of the Holstein calves were from tubercular cows and received no colostrum whatever. Several of our calves have never been with their dams at all and have taken even their first feeding from a pail. We also violate the rules of the game in the matter of silage—we feed the calves considerable of it after they are a month old. The calves are fed milk only twice a day. We generally milk some of the first milk in a separate pail, enough from one cow to feed one calf. This is just as good for the calf after he is three weeks old and improves the quality of the milk we sell.

Some years we have raised ten calves. What good fortune we have had we attribute to keeping close watch and taking at once corrective measures, which means with us starvation rations and castor oil. It has been our experience that boiling the milk is a great help in serious cases of digestive trouble. Another factor may be that we try to feed so that there is no serious deficiency in any particular. Our calf feed includes steam bone meal, regular Eastern States Calf Meal, whole oats, Eastern States Fitting Ration, Eastern States Dairy Feed, and sometimes we use cracked corn also. The idea with us is to feed as large a variety as we reasonably can.

There is no paper like yours in the dairy field. R. C. BREWSTER.

New Hampshire.

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, D. C., Nov. 25—The appointment of Hon. Howard M. Gore as Secretary of Agriculture "came through" as expected by those most familiar with the methods of the President in making appointments and meeting emergencies. It is an appointment on merit, because the secretary has both a record of efficient work in the department and of farmer approval in his own state where he was the farmer candidate in the gubernatorial primary in midseason, and the winner of the governorship in the election. Mr. Gore is farmer minded; has engaged in farming, cattle raising, and cattle marketing all his life. He is a West Virginia cattle raiser. Like Secretary Wallace, his interests are purely farm interests.

His election as governor of West Virginia makes it impossible for him to serve after March 4, and thus his appointment meets the conditions which it was evident that the President wished to impose, without the least embarrassment, for on March 4 the President will be at liberty to name a man as secretary who will round out the new cabinet which he will name himself and as his own official family at that time. Who this is to be is subject of much discussion here, but with nothing in sight which indicates an answer.

Three different types of men are being suggested for the place; several candidates are farmer minded and actually engaged in farming; several others are college or institution men who have a professional interest in agriculture; a few others are business men with records of real success and with farm interests as side issues. The comparison of Secretary Wallace and Secretary Gore, men of real farmer interest, with predecessors is to the advantage of these qualifications, but it is certain that the President will give consideration to all candidates and to geographical and political considerations as well as personal qualifications, before filling out this place in his official family.

The fifty thousand dollar investigation of the cost of producing vegetable oils, entered into nearly six months ago by the U. S. Tariff Commission, is approaching its termination. Five skilled members of the Commission staff who have been in Europe, Eastern Asia, and the Malay and South Sea Islands studying methods of manufacture of vegetable oils, especially soya bean and cocoanut, have finished their work and are all sailing together from China. They will be back here about Christmas. Upon the result of their studies will depend in large part whether this investigation results in lowering the existing rates of duty, and thus becoming a Christmas present of several million dollars a year to the soap makers, lard compound mixers, and oleomargarine industry of the United States, or in sustaining the present duties and thus protecting the American producers of fats and oil seeds.

Three of the investigators have spent most of the time in Manchuria and Japan. Two were in Europe studying methods of manufacture in the great oil consuming centers of Holland, Belgium, England, and Germany, and then went to Ceylon, Cochin, China, and the Malay Islands. While this foreign investigation has been going on, more than a score of investigators have studied costs of production in this country. The commission has held that this case will not take into account any agricultural costs but as the vegetable oils are technically in the chemical schedule of the Tariff Act, only manufacturing costs will be considered. Opponents of reducing the rates of duty will follow the precedent laid down in the casein case, namely to put before the commission the agricultural costs of the oil bearing materials. They state that in no other way can the tariff be made of any value to farmers and that the cost of manufacture of these oils at home and abroad can not be far apart, but that the real question at issue is to maintain the oil producing industries in this country on a scale or cost which will permit free, white labor, at American wages, to compete in this particular field of agriculture. The opposition to any tariff reduction is being handled by a Tariff Defense Committee made up of representatives of peanut, cottonseed, and soya bean producers, dairymen cattle owners, and hog growers in the United States. The Tariff Commission expects that its experts will be able to prepare and tabulate their facts in time for a hearing two months after their arrival in Washington. This tariff case is second in size to the sugar case which has already been tried and is in the President's hands. No other cases since the flexible tariff proviso was added to the Tariff Act has been as important or affected as many American farmers as the vegetable oils case.

New Butterfat Champion of Arizona

Arizona's Bess, owned by C. S. Conway, of Arizona, recently completed the greatest record ever made by a Jersey in Arizona. She started on test when 5 years, 6 months of age and in 365 days produced 702.89 lbs. fat and 12,332 lbs. milk.

On this record she becomes Jersey butterfat champion of this state, all ages, and also champion in the mature class.—The American Jersey Cattle Club.

"He who resorts to the easy novel, because he is languid, does no better than if he took a nap."—THOREAU.

Complete Dispersion

Roice & McQuate Holstein Herd

Dec. 18, Wellington, Ohio

50 REGISTERED HOLSTEINS of show quality, 30 cows and heifers fresh or close up, 20 open yearlings and calves, and our herd sire that has excellent 7 day and year record backing. All but one animal raised on the farm. Only one over seven years old. Several show winners.

Colantha Johanna Lad, Pontiac Korndyke, King of the Pontiacs, Changeling and Creamelle Vale breeding. An accredited herd for past five years. 60-90 day retest.

Write for Catalog

CLAYTON B. ROICE, Wellington, Ohio

SALE ANNOUNCEMENTS

Dec. 6—Holsteins. Dr. J. Van Houten Dispersal, Valley City, N. D.
Dec. 8—Holsteins. Dispersal Sale of Unaland Farm Holsteins, Valparaiso, Ind.
Dec. 9—Holsteins. Dispersal of J. M. Kelley herd at Baraboo, Wis. Frances Darcey, Sales Manager.
Dec. 11—Holsteins. Bacon—Enright Annual Sale, Grand Forks, N. D.
Dec. 17—Holsteins. Consignment Sale at Berea, Ohio. Ohio Holstein-Friesian Ass'n., Mgrs.
Dec. 18—Holsteins. Dispersion of Roice & McQuate Herd at Wellington, Ohio.
Dec. 19—Guernseys. Dispersal sale of the Rundell & Nichalson herd at the Sales Pavilion, Livingston, Wis. Chas. A. Wilkins, Mgr.
Dec. 19—Holsteins. H. L. Dunbar's Dispersal, Wauseon, Ohio.
Dec. 20—Holsteins. Wauseon County Home Dispersal, Wauseon, Ohio.

GMC

Price or Performance?

There are no two ways to buy a truck for dairy farm hauling. Put your hauling on the most economical basis by buying a truck with sufficient capacity, and plenty of vitality to last for years.

A GMC, Model K-16, one ton truck will do twice the work of lower priced, smaller capacity trucks. One driver's time instead of two.

And a GMC will be doing this long after the other truck is gone and forgotten. GMCs are built against wear.

Every GMC part is designed overstrength.

Every GMC engine has full pressure lubrication.

Every GMC has a heavy duty, sliding gear transmission.

Every GMC is automatically governed to a safe speed to prevent accidents.

A GMC on the job will stay on the job and make money for you, instead of business for repair shops.

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For Your Friends, Neighbors and Employees

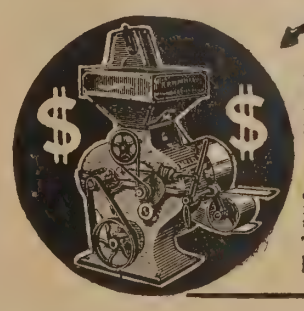
No need to bother yourself any longer about that present you are going to give to August, Frank, Vic or Charlie

Two dollars will buy one of our new revised pocket herd books. Just what they will appreciate. It is about 3¼" by 5¼" in size and contains pages for herd of 100 head, sire, dam, records, sketch, etc., as well as service records, gestation table and blank pages for notes. Loose leaves and bound with good leather.

A pocket herd book comes in handy very often and frequently at odd moments. You never know when you are going to be asked for a description of the dam of your best bull calf, her exact record, etc.

Order a copy right now — $2.00 postpaid

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When you grind your own feed you save hauling and all unnecessary profits. You can make money grinding stock feed, rye and graham flour, etc., with a

HOWELL *Roller Feed Mill*

Grinds twice as fast as burr mills at half the expense. Built like a flour mill. No burrs, no stones to wear out. Trouble-proof. Guaranteed to get the wild oats. Gives lifetime service.

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KEEP TAB ON YOUR COWS

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets.
Hoard's Dairyman, Fort Atkinson, Wisc.



The Dairy Farm Home

Good Christmas Stories

At this season of the year the evenings are long, the fires are warm, and the holidays bring a little extra time for reading. This would be an ideal time for the whole family to get together and spend an evening reading some good book or some good story.

The nearness of Christmas will make them want a Christmas story. There are so many good ones that every member of the family ought to be familiar with at least the most popular and best of the Christmas stories and poems. Some of them are standard classics and other good ones are newer and not quite so well established. Every one of them will help us to enjoy the season more and to see and feel something that we have not experienced before. Most of the stories may be obtained from the libraries or they may be bought in book and booklet form at the stores at a reasonable price.

If you have any of these good Christmas stories in the house, be sure and dig them up. You will enjoy them better after re-reading them than you did the first time. If you do not have a single one of them, be sure to include one in your shopping list and bring one home as a Christmas present for the whole family.

You may have among your books Dickens' "A Christmas Carol". If you have, be sure and re-read it. In regard to this famous Christmas story a well known author writes that he has read "A Christmas Carol" for the tenth time. He also makes the bold statement that if this story could be read by every man, woman, and child in the whole world, Christmas would be a happier time and the feelings of the race would be elevated and strengthened. "If you know any mean person," he says, "you may be sure that he has not read 'A Christmas Carol' or that he has read it so long ago that he has forgotten it." He also intimates that any person who can read "A Christmas Carol" aloud to the end and keep his voice steady, is not a safe person to trust with one's purse or one's honor. "The Chimes" and "The Christmas Book" are other Christmas stories that are found among Dickens' works that one would enjoy particularly at this time.

There is also a volume of stories by Henry Van Dyke called "The Blue Flower", which contains, besides other short stories, three very charming Christmas stories. They are "The First Christmas Tree", "The Last Word", and that charming story of "The Other Wise Man" who was supposed to be on his way to take a pearl of great price to Bethlehem but never got there. He spent thirty and three years looking for the King at Bethlehem, but was detained all along the way, feeding the hungry and clothing the naked. You will want to know whether this man had yielded to temptation or took advantage of his great opportunity.

Kate Douglas Wiggin has left us a whole list of good Christmas stories in her volume "The Story Hour". She tells "The Story of Christ" especially for the children in the simple language they can easily understand. "The Romance of a Christmas Card" is a longer story that older children and grown folks will enjoy. Everybody who has not read "The Old Peabody Pew" will surely enjoy this bit of fiction at Christmas time. "The Bird's Christmas Carol" is another story that is worth knowing.

Another lovely romance is written by one of our most popular and beloved authors, Mary Roberts Rinehart. "The Truce of God" is the name of this story and anyone familiar with Mrs. Rinehart's work will surely be glad to get acquainted with this Christmas story of hers. It is published in a small volume with beautiful illustrations and would make a very pretty gift for someone who loves this author.

Here are some good essays and sermons that will give you new thoughts about Christmas. Two by Washington Irving, one called "Christmas', and the other "Christmas in England". "A Christmas Sermon" by Robert L. Stevenson, "Christmas Today" by Hamilton Wright Mabie will be found among the works of those authors.

There is another story written and published about two years ago. It was written by Coningsby Dawson and is very different from any other Christmas story you have ever read. The name of it is "Christmas Outside of Eden". It is supposed to be a story that the robins told so one can't believe every word of it. But it is interesting. It also is published in a small booklet and is suitable to give as a gift.

There are also some poems that we ought to re-read at this time. One of them is "Christmas Bells" by Henry Wadsworth Longfellow. It is a very long and beautiful poem, but I will quote only one stanza of it:

"I heard the bells on Christmas Day
Their old, familiar carols play,
And wild and sweet
The words repeat
Of peace on earth, good will to men!

Another that almost every one knows is "Bells Across the Snow" by Frances Ridley Havergal. It is true that there are not very many bells across the snow now, but wouldn't it be nice if there were? And two more that the children would not miss are "'Twas the Night Before Christmas, When All Through the House" by Clement Moore and "Jest 'Fore Christmas" by Eugene Field. The latter is published in the book "Love Songs of Childhood".—SOPHIA K. ORMOND.

Co-operative Dinners

A co-operative dinner is a fine way to have a big jolly party and no one the worse for it. People all seem to be getting less and less of that precious thing, leisure, and no woman can afford to work herself into a state of "nerves" just to give a crowd a big dinner; neither do we want all of our days to be alike with no exchange of ideas from the outside. All of these things make the co-operative dinner a happy solution of the visiting problem.

Of course these affairs are not as nice as dinners used to be in the old days we love to hear about when some rosy-cheeked, beaming-eyed, white haired mother would gather in crowds of children and grandchildren on holidays and anniversaries.

According to the stories she always had the house freshly cleaned and warm, the kitchen full to the ceiling of fine food, the table beautifully laid with "glistening silver and damask", and she herself would be standing on the porch by eleven o'clock, quaintly dressed, to receive the guests, her face wreathed in smiles and not a pucker on her face such as you and I would have after such a preparation.

Now I ask you as one housewife to another, how did they do it? Did they really do it at all or is it just a story? If they did, they must have used up all the energy there was for I'll frankly admit that serving a bumper of a dinner to 15 or 20 people and doing everything myself would be just about a day's work and I wouldn't guarantee a peaceful smile at the end of it.

Whatever the reason, we don't seem to be quite up to doing what they did and that's why I like these co-operative dinners. You can get up one of them in just a jiffy because for each one the preparation is simple.

I have a friend in a city who belongs to a group of 20 women. They meet one evening a month at six, each bringing part of the food. Two of the group act as hostesses at the home of one of them. These two prepare the meat—usually a hot roast—as that is the thing requiring the longest cooking. The other articles are either things that can be served cold or else require only a few minutes heating.

In a half hour they have a meal that would keep any one of them busy a couple of days. Then it is such fun. They don't have to bother talking about the things the men are interested in; they just "visit".

Each takes her own plate, cup and saucer, and silver. She carries these home without washing them and what cleaning up the hostess has to do is easy.

This plan is just as workable in the country as in the city and with whole families as with just the mothers. Sometime when you are feeling dull and life does not seem very interesting, just try one of these dinners with a couple of neighbors. You'll have all the stimulation of a party without its tiring work.—LUCY THOMPSON.

Grease Spots

This is an old practice but it is such a good one to know that I am going to risk telling it. When you have got into grease of the heavy black kind, such as comes from the roads or from wheels, just rub it well with lard, being sure that you have covered it thoroughly.

After this wash it in water as hot as you can stand and use plenty of soap. This has never failed to take out the stubbornest grease I have ever had to contend with.—LUCY THOMPSON.

Aunt Ada's Axioms: A mean remark never feels at home in good company.

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2193—The New Tunic Dress. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 4¾ yards 40-inch material with ¾ yard 36-inch contrasting.

No. 2230—One-Piece Dress. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3½ yards of 40-inch material with ⅝ yard 24-inch contrasting.

No. 2235—Attractive Apron. Cut in sizes small, medium and large. The medium size requires 2 yards 36- or 40-inch material. The hot-iron transfer pattern No. 700 which comes in blue only, costs 15c extra.

No. 2226—Cape Dress. Cut in sizes 14, 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3¾ yards 40-inch material with 1½ yards 32-inch contrasting.

No. 2238—Junior Cape Dress. Cut in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2⅛ yards of 36-inch material with ½ yard 36-inch contrasting.

No. 2165—Comfortable Step-in. Cut in sizes 36, 40, and 44 inches bust measure. Size 36 requires 2¼ yards 40-inch material.

No. 1649—Smart Little Design for Girls. Cut in sizes 4, 6, 8, and 10 years. Size 4 requires 1⅞ yards 36-inch material with 7¼ yards of binding.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

In dealing with children, expecting the right thing has a very great value. There is a lot in simply assuming that the right thing will be done.—DR. HELEN T. WOOLLEY.



"Just the Thing for Xmas"

Coleman Quick-Lite

"The Sunshine of the Night"

THIS wonderful lamp will bring the good cheer and radiant happiness of the holiday season to every "home evening" throughout the year. 300 candle power; brighter than 20 old style oil lamps or lanterns.

Surprise Mother on Christmas morning with a Quick-Lite Lamp. Dad or Brother will welcome the dependable Quick-Lite Lantern. Always ready for any job any night.

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200 SHEETS and 100 ENVELOPES $1.00

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Clear, white bond paper, with envelopes to match. Your name and address printed in beautiful, rich blue ink, on both paper and envelopes, and sent to you postpaid for only $1.00. (West of Mississippi river and outside of U. S. $1.10.) If inconvenient to send money, we will ship C. O. D.. Money returned if you are not more than satisfied. Order today. Write name and address plainly.

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"Saved 140 a Rod," says Ed. Schwartz, R. 2, Soblesk, Wis. You too, can save. We Pay the Freight. Write for Free Catalog of Farm, Poultry, Lawn Fence.

KITSELMAN BROS, Dept. 256 MUNCIE, IND.

Friendly Talks for Farm Folks

"Sammy," said Mrs. Jem Talkins to her stalwart son, "why don't you take Maria Bloomer around more to the church suppers and Grange dances and the like? I should think she would be a girl after your own heart—pretty as a picture, right smart at cooking and housekeeping, and her pa worth twenty thousand dollars if he's worth a cent."

"I know it, ma, I know it," deplored Sammy sadly. "I often think so myself; but there's just one thing about her, ma, and no decent man would put up with it; she's—she's plumb unmoral."

"Unmoral!" screamed Mrs. Jem Talkins. "Well, then, Sam, my boy, if that's the case, you just leave the Jezebel alone. Don't you as much as look at her."

"I can't help it, ma," said poor Sammy. "She flaunts her brazenness before everyone, male or female. Ma, that girl actually wears her ears naked in this day and age. I ain't going to have a thing to do with such a shameless thing, so there!"

When Mart Treusdell gets ready to turn his cows into afterfeed and the cutover cabbage field, although they have been dying to get into these forbidden spots all summer, the contrary beasts immediately seek other pastures farther on where the temporary fences are not of the strongest. So Mart meets them half way. He and the children drive them with much energy and vim out of the afterfeed and cabbage patch, and of course as they are driven forth from these better feeding grounds, the cows promptly get it into their none too intelligent heads that this is forbidden territory and hence to be greatly desired. Thereafter no mortal could get them to feed elsewhere, so the day is won and the temporary fences remain intact.

It seems the logical thing for $4 to $8 a ton cabbage to be mostly made into saur kraut.

When the good old tax season comes round once more, the average farmer is in a quandary as to whether it is worth while to pay taxes in order to keep his farm, or whether he had better keep on farming in a vain endeavor to pay his taxes. It's some parable, believe me.

They always speak of Mary Arnold as being one of the salt of this earth, while her sister Bess is known to have worlds of pep. Another sister is called one of the sweetest girls in town, while the fourth Arnold daughter is always thinking up spicy and pungent things to say. No wonder such highly edible girls are popular with the hometown boys.

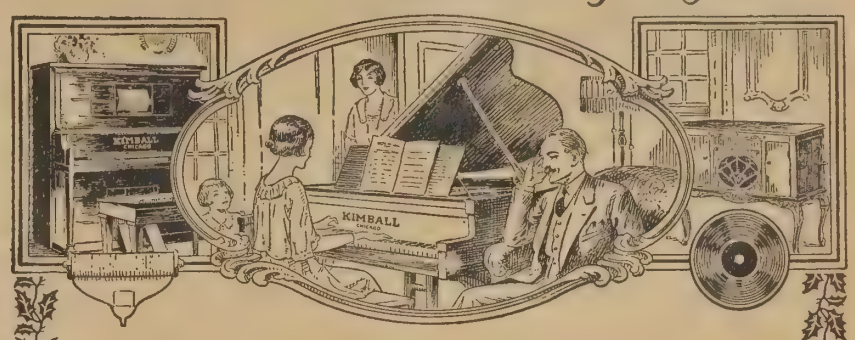
It used to be the three R's that a boy had to know before his education was complete, but nowdays, what normal boy would consider himself anybody at all if his curriculum didn't include still another R—Radio.

Some old wiseacre once remarked that all things come to him who waits; but as Ed. Macey says, it does seem as though they would come a darned sight quicker to the man or woman who hustled out after them.

The young folks are having a great notion lately of hiring a justice of the peace to marry them. Sam Newton wonders why justices aren't more in demand to preach at funerals than they seem to be.

New York. HELEN S. K. WILLCOX.

Give a KIMBALL and Have Christmas Every Day



EACH succeeding day will renew the delight that greeted the gift when it was first bestowed!

Each day will reveal some new perfection in its tones. For *every type of music* derives a new meaning and a new beauty from the glorious resonance and sparkling brilliancy of the KIMBALL Piano.

But, though KIMBALL quality is unsurpassed, the *prices are lower* than you would think possible where manufacturing ideals are so high. It is due to the *long experience* of the KIMBALL organization, and the *great production capacity* of its factories.

The same excellence is revealed in the wonderful purity and volume of tone in the Grands and Uprights—in the lifelike performance of the Players—and in the impressive accuracy of tone-reproduction shown by the Phonographs.

Why be satisfied with less in quality when the price is no more?

There is a Kimball dealer near you—let us send you his name and descriptive catalogs.

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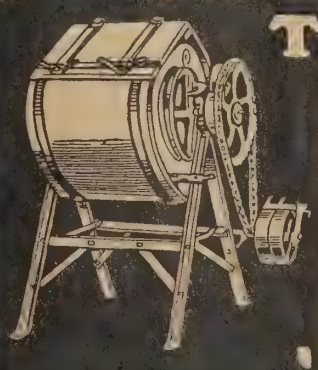
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306 South Wabash Avenue, Chicago, Ill.

Gentlemen: Please mail catalog and information on instrument marked X: ☐ KIMBALL Reproducing Pianos ☐ KIMBALL Grand Pianos ☐ KIMBALL Phonographs ☐ KIMBALL Upright Pianos ☐ KIMBALL Player Pianos ☐ Send nearest dealer's name

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Three to four cents over the market price of butter. That is what MINNETONNA owners get for the product of this wonderful churn and butter worker. The high quality of MINNETONNA-Made butter insures a ready market.

Pays for itself in a short time because it gives overrun (moisture and salt) of 20% to 25% and gets all of the cream from the butter milk. Eliminates labor of working butter.

Will churn 12 gallons of cream or less. Works 3 to 20 lbs. Requires ¼ H. P. motor or 1 H. P. gas engine. Hand driven if desired.

Complete directions for operating and making quality butter with each churn. Write for FREE descriptive folder.

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What they say about the Ohio Shock Husker



"Never finished my husking so quick."
"Never fed such good fodder or husked so clean."
"I use mine the year around to saw wood, grind feed and even bale hay.
"Will never shred again as we do our own husking without the help of our neighbors."
"Hooks behind the wagon and never bothers the team to pull it."
"As important to me as my binder."

Let us do for you what we are doing for these farmers.

THE OHIO HUSKER CO., Doylestown, Ohio



NEIGHBORS

When Ephraim Crosby made a clearing far out on Valley Road and built his house, he had no neighbors. He lived an independent life, producing on the farm practically all that his family ate and wore. Emergencies—sickness and fire and protection of his homestead from prowlers—he met for himself. Later he had neighbors, one five and another eight miles away. Sometimes he helped them with their planting and harvesting, and they helped him in turn. Produce was marketed in the town, twenty miles along the cart-road.

Today Ephraim Crosby's grandchildren still live in the homestead, farming its many acres. The next house is a good mile away. But the Crosbys of today are not isolated. They neighbor with a nation. They buy and sell in the far city as well as in the county-seat. They have at their call the assistance and services of men in Chicago or New York, as well as men on the next farm.

Stretching from the Crosbys' farm living-room are telephone wires that lead to every part of the nation. Though they live in the distant countryside, the Crosbys enjoy the benefits of national telephone service as wholly as does the city dweller. The plan and organization of the Bell System has extended the facilities of the telephone to all types of people. By producing a telephone service superior to any in the world at a cost within the reach of all to pay, the Bell System has made America a nation of neighbors.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
BELL SYSTEM
One Policy, One System, Universal Service

More Milk—More Beef



Feed Home-Grown Crops

Stop that monthly feed bill. The Letz Dixie will cut, grind and mix anything grown—makes a perfectly balanced ration from home-grown crops. Guaranteed to increase production from 15 to 30% and cut feeding costs 25 to 50%. A warehouse in every state.

Write for copy of new Letz Feeding Manual describing Letz System of Home Crop Feeding. A valuable addition to your library.

LETZ *America's Leading Feed Mill*

1211 East Road
Crown Point, Indiana

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

The Ayrshire in America vs. in Scotland

HOARD'S DAIRYMAN:—In your October 24 issue in an article by Dr. Robert Wallace the following statement is made on the Ayrshire in America:

"In spite of its white color the Ayrshire breed is bigger than it is at home and if it were only back to its normal hair coloring there is no reason why it should not still further improve, if breeders will keep in mind that to maintain the type they must now and then go back to the original home of the breed for a change of blood by the introduction of a superior bull."

The last part of this interests me particularly for I know no reason why Ayrshire breeders of America should accept it as a truth and base their breeding operations on the presumed necessity for returning to the original home of the Ayrshire cow for "change of blood". It is accepted as a fact that the average quality of the Ayrshire breed in Scotland is at this time above the average merit of Ayrshires in this country. The breed is relatively new in America, its real progress having begun less than ten years ago. There are undoubtedly among the best herds in Scotland those which can at this time, and for a fair period to come, supply breeding animals which will be profitable purchases and advantageous foundation stock in America.

Is there, however, any well founded reason for believing that as good animals in this breed cannot be bred on this side of the Atlantic as in Scotland? Some sections of the United States in particular are nearly enough identical with conditions in Scotland that I feel sure that neither climate nor ration will in anyway interfere with the development of the highest quality in Ayrshires. There are sections in which feeding conditions are much more favorable than in a great part of the territory in which Ayrshires are now numerous in this country. I believe that response in these sections where more liberal feeding can profitably be followed will be even greater than has been found with the breed in New England and New York.

If neither climate nor feed requires our going back to Scotland for breeding stock, are we to accept this assertion and the implication it carries that American breeders are not capable of so managing their breeding operations as to produce fully as good animals as are now on the other side, to say nothing of looking forward to breeding even better ones? The experience of a number of our other breeds leads me to the belief that we do not need to subscribe to this proposition. I am confident that the time will come when there will be better Ayrshire cattle in America than there are in Scotland and that these animals will be bred on this side. Our rations are admittably not inferior and I have full faith to believe that American stockmen will prove themselves as well qualified to carry on and improve the good qualities of Ayrshire cattle today as these men in Scotland who have contributed so greatly in the development of the breed thus far.

C. L. BURLINGHAM,
Sec. Ayrshire Breeders' Ass'n.

Honor Roll of 300-pound Herds

The recognition of the development of a 300-pound herd is a real encouragement for "it takes a lot of work to develop a 300-pound herd", writes a Maryland owner; while a Minnesota man says, "I think this move is a distinct step in the progress of dairying." A. J. Cramer, representing the U. S. Bureau of Dairying in Wisconsin, writes, "I am sure that the 300-pound herd average propaganda has caused a number of farmers to consider culling more closely. We will have many more 300-pound herds another year." These are some of the comments on the recognition of members of cow test associations who have developed herds averaging 300 pounds or better.

Twenty-eight states report a total of 2,375 cow test association members as eligible to the honor roll established by the National Dairy Association as encouragement to herd owners in the belief that an annual yield of 300 pounds or better per cow is obtainable and pretty apt to insure a profitable herd, even at lower prices than have prevailed lately. Markets may determine the price of milk or cream, but the herd owner determines the cost of production and the annual yield per cow is one of the most vital factors in this cost.

To each 300-pound herd owner present at the National Dairy Exposition, the National Dairy Association presented a diploma of recognition of their successful effort. Names of all, whether present or not, will be published in the year book of the association.

Michigan heads the list with 386 herds which produced 300 pounds or over per cow, while 38 of these herds produced better than 400 pounds. Wisconsin follows with 365 herds, of which 14 exceeded 400 pounds. Pennsylvania comes next with 338 herds over the 300-pound mark and 48 herds exceeded the 400-pound average. Minnesota has 221 herds of which 9 exceeded the 400-pound mark; while Ohio has 204 over the 300-pound average, 29 in the 400-pound list, and three over 500 pounds.

Some interesting herd averages with the number of cows in the herd, not necessarily the highest in the list and showing that no one state has a monopoly on profitable yielding herds, are as follows: 26 cows in Wisconsin averaged 387.1 pounds fat each; 10 cows in Wisconsin averaged 395.0 pounds fat each; 19 cows in Oregon averaged 441.0 pounds fat each; 16 cows in Georgia averaged 526 pounds fat each; 9 cows in Idaho averaged 425 pounds fat each; 16 cows in Illinois averaged 443.0 pounds fat each; 10 cows in Indiana averaged 388 pounds fat each; 8 cows in Minnesota averaged 370 pounds fat each; 5 cows in Montana averaged 342.9 pounds fat each; 17 cows in Massachusetts averaged 360 pounds fat each.

States reporting ten or more herds averaging 300 pounds or over, and the number averaging over 400 pounds are as follows:

	300-lb. herds	400-lb. herds
Michigan	386	38
Wisconsin	365	14
Pennsylvania	338	48
Minnesota	221	9
Ohio	204	29
Iowa	174	9
Maryland	134	
Illinois	108	9
Virginia	65	6
Idaho	59	6
Indiana	56	4
Oregon	51	15
New York	38	1
New Hampshire	24	3
New Mexico	18	
North Dakota	18	
Missouri	17	
Georgia	16	13

—H. E. VAN NORMAN.

Aunt Ada's Axioms: The Christmas spirit will be here all the year 'round when everybody learns to be kind for the same period.

National Milk Producers Meet

(Continued from page 627)

dent. The association finally overcame this through reorganization of its territory and system of hauling and hired loyal truck men, but because of the Freeman—Collister bill they are unable to haul anything but association milk.

The association is now setting aside 4 per cent each month from the producers' milk checks to accumulate a fund to finance a plant for handling surplus milk. This fund is accumulating at the rate of about $250,000 per year.

The association is co-operating with its dealers in carrying on an advertising program, each paying 50 per cent of the cost. About $7,000 worth of school text books were purchased from the National Dairy Council.

⚜

H. D. Allebach, president of the Interstate Milk Producers' Association of Philadelphia, featured the work done by his association in solving five important problems in milk production, distribution, and consumption.

In four years producers for this association have so reorganized the production as to avoid the extreme seasonal increase of milk. At the present time production does not vary more than 12 per cent each month whereas formerly in early summer it was 50 per cent above the needs of the patrons. This has helped to stabilize the price.

In many cities throughout the Philadelphia milk territory varying in size from 5,000 to over 100,000, the association has adjusted a fluid milk price differential using Philadelphia price as a basis so that at the present time every price change in Philadelphia automatically adjusts the price in the outlying territory.

Members requested that the association make a check on the weights and tests they were receiving for their milk. The expense of this is taken out of a 2 cents per 100-pound brokerage charge.

It took two years of educational work to get members ready to take action on a general clean-up for quality. Quality control work is now going on very satisfactorily.

Due to the educational program to bring about a better knowledge of the value of fluid milk as food, the consumption has increased 12—14 per cent each year since the work started in 1921. The Philadelphia Interstate Dairy Council co-operating with the National Dairy Council is responsible for this increase.

⚜

"The Michigan Milk Producers' Association has been an organization of rather conservative growth," said J. C. Near, secretary of that association at the annual convention of the National Federation.

Beginning in 1923, the association contract was improved to a greater satisfaction of the members and a thorough membership campaign was put on, which resulted in greatly strengthening the position of the organization. As proof of this, the number of distributors now dealing exclusively has constantly increased. The association is now functioning in Detroit, Grand Rapids, Flint, Saginaw, and Ann Arbor.

The association has adopted the so-called "basic plan" for the payment of milk, and the distributors in the area purchasing milk from the association are paying the basic prices for all home milk consumed and the balance is paid for on the basis of New York 92-score butter plus twenty per cent.

The association has maintained an open door policy at all sales' meetings, which are held on a specific day, and an invitation extended to any individual or local to meet with the directors or sales committee.

The problem of handling and regulating surplus milk is a big one. In addition to the "basic plan", this association has a fully equipped manufacturing plant at Adrian, which makes butter, cheese, milk powder, and condensed milk, and operates on a paying basis during the flush season.

FORWARD WISCONSIN
FARM FACTORY COMMERCE

Where Do You Stand on Taxes?

THESE tax messages deal with hard, plain facts that our people must take into account when anyone talks about raising tax rates for any person or group.

We believe that we can all agree on this tax program:

I. Taxes of all kinds must be kept as low as possible.
II. To levy taxes *there must be something to tax,* and therefore Wisconsin tax laws should permit the greatest growth of agriculture and industry.
III. Taxing on ability to pay is one of the rules of taxation but Wisconsin taxes should not be higher than in other states where state income taxes are unknown or are less than ours.
IV. Wisconsin's tax policy should be fixed and definite, without uncertainty and continual agitation for higher and higher rates.

Our people should understand that in Wisconsin successful industries now pay higher taxes than in any other industrial state in the Union. This state should not raise its tax rates while those of other states are lower.

We believe there is no need for higher taxes and that the commonsense stand for Wisconsin to take is:

"Lower taxes for all and higher taxes for none"

Send for free booklet: "The Story of Wisconsin"

WISCONSIN MANUFACTURERS' ASSOCIATION, Madison, Wis.

THE COMMITTEE IN CHARGE OF THIS "FORWARD" PROGRAM IS:
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FARM AND FACTORY MUST PROSPER TOGETHER

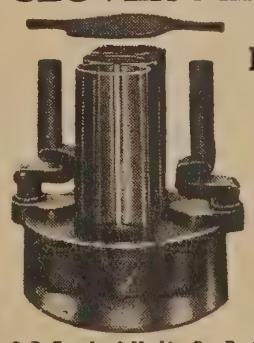
People Eating More Butter

Butter consumption in the United States has increased nearly 50,000,000 lbs. during the first nine months of 1924 as compared with the same period in 1923, declares T. R. Pirtle of the United States Department of Agriculture. The figures for the first nine months this year show consumption of 1,516,690,000 lbs. as compared with 1,467,043,000 lbs. last year.

Of the increased quantity of butter consumed approximately 18,000,000 lbs. is accounted for by the normal increase in population. An additional 9,000,000 lbs. has been required through the decrease of that much in the production of farm butter which must be replaced by creamery butter.

Per capita consumption of whole milk has increased more than 23 per cent in the past three years, it is pointed out. Each person on the average in 1920 consumed 43 gallons of whole milk, whereas per capita consumption in 1923 was 53 gallons. Butter consumption during the same period has gone up from 14.7 lbs. per person to 17 lbs., and consumption of condensed milk increased from 6 lbs. to 13¼ lbs. Only slight increases are shown in the consumption of cheese and ice cream during the period covered.

CLOVER LEAF OIL BURNING TANK HEATER
—Blue Flame—
Eight Successful Seasons



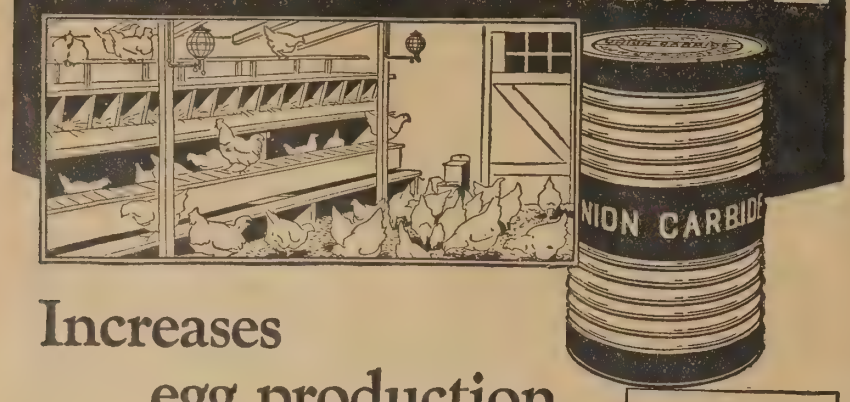
No ashes, smoke, or sparks. Requires attention but once a day. Costs less to operate. Will last a lifetime. Keeps drinking water at proper temperature at all times. TODAY—write for illustrated circular and testimonials.
C. R. Foundry & Machine Co., Box 20, Cedar Rapids, Iowa



---Easy with the OTTAWA Log Saw! Wood selling for $3 a cord brings owner $45 a day. Use 4 H. P. Engine for other work. Wheel mounted---easy to move. Saws faster than 10 men. Shipped from factory or nearest of 10 Branch houses. Write for FREE Book--- "Wood Encyclopedia"---today.

OTTAWA MANUFACTURING CO.
1381-T Wood Street, Ottawa, Kansas
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UNION CARBIDE



Increases egg production

PROGRESSIVE FARMERS who desire to increase their income, find that the installation of Union Carbide-gas lighting in their hen-houses lengthens the hen's winter day to fourteen hours.

This added feeding and exercising secure greatly increased egg production at a small cost—and at the time of year when eggs are most profitable.

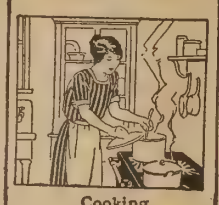
Union Carbide itself is a crystalline material, like crushed granite in appearance. It has many uses besides lighting of farm homes and buildings—such as for cooking, ironing, oxy-acetylene welding. It is used in millions of miners' lamps; in many government lighthouses and buoys.

Over 409,000 Carbide-gas plants have been installed on farms during the last twenty-five years, and each year adds thousands of new ones.

Carbide-gas is made in a simple, easily-operated apparatus known as a generator. In this generator Union Carbide is brought into contact with water, which immediately produces the gas. Concealed iron piping (which does not disfigure walls, floors, or ceilings) then carries it to the rooms where its cheerfulness and comfort are enjoyed; to the kitchen for cooking, ironing and heating water; to the barn for light and safety; to the hen-houses for increasing egg production in winter.

If you already have a Carbide-gas plant but are not using its light in the hen-house, send for our interesting booklet on the subject of egg production. You can easily have your piping extended to the poultry buildings.


Ironing


Cooking


Lighting

We supply Union Carbide in generator sizes direct to the consumer at factory prices through 175 Union Carbide warehouses. There is one near you.

UNION CARBIDE
World's Best Quality, Highest Gas Yield, Standard Throughout the World for More Than a Quarter Century, Greatest Gas Value, Purest Gas.

UNION CARBIDE SALES COMPANY
30 East 42d Street, Dept. 126 New York, N. Y.

Please send me, without obligation, information on UNION CARBIDE Lighting and Cooking. (eggs)

NAME _____

ADDRESS _____ STATE _____

I am not NOW a Carbide user

Note: Every owner of a Carbide-gas Lighting and Cooking Plant should write us, so he will be kept advised of our lowest direct-to-consumer prices and nearest warehouse address, and his name placed on our mailing list for future helpful service.



You Don't Need A Pile of Money

Every Cow—Hog—Hen Farmer Can Use *JAMESWAY* Plans and Equipment

You'll be surprised at how little it costs to own and enjoy a Jamesway equipped, work-saving dairy barn, a sunny sanitary hog barn, or a comfortable, ventilated poultry house to increase your earnings. Write and get our Jamesway "Pay from Earnings" Plan on stanchions, stalls, carriers, water bowls, etc. As little as $10 to $12 per month will give you the finest dairy barn equipment you could want on this plan. And think of the increased earnings, shortened hours of labor, and a more pleasant place to work in!

Equip your hog barn and poultry house on same plan. Think of only $6.00 or $8.00 per month and increasing your egg profits with feed saving, metal self-feeders, waterers, self-cleaning metal nests. Also complete ventilation system. Hens can't help but lay more eggs in such a poultry house.

Our New Jamesway Book Sent FREE—

will tell you how you can have these advantages. Also tells how increased earnings soon pay their cost—and yield clear profits afterwards. If building, or remodeling, be sure to get Jamesway plans first. Our local Jamesway man will be glad to call and help you. Write today and mention how many cows, hogs, chickens, etc. you keep.



This New Book Will Tell You—

How to get a good dairy barn.
How to remodel an old barn.
How to get good ventilation.
The Essentials of a Good Cow Stall.
How to give cows pasture comfort in a barn.
How to judge a stanchion.
How to feed cows for profit.
How to insure "safety first" with the bull.
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How to have better hogs and bigger litters.
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How Jamesway "Pay-from-Earnings" plan pays for your equipment as you use it.
And many other helpful pointers on cow, hog and hen problems.

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Dept. A, Elmira, N. Y. Fort Atkinson, Wis. Minneapolis, Minn.

POULTRY On The DAIRY FARM



National Egg Laying Contest

The thirteenth national egg laying contest has just been completed at Mountain Grove, Missouri. The contest consisted of 60 pens of 5 hens each. Thirty of these pens were of the light breeds and 30 pens of the heavy breeds.

The 300 hens laid 58,519 eggs during the twelve months or an average of 195.06 eggs per hen. One hundred forty-eight hens made records of 200 eggs or more.

Cosco Farm, Indiana, had the winning pen of the contest. These were S. C. White Leghorns which laid 1,336 eggs or an average of 267.2 eggs per hen for the year. The second high pen, White Wyandottes, owned by Warwick Rogers, England, laid 1,318 eggs.



"QUEEN OF WISCONSIN"

Individual winner of the National Egg Laying Contest. Queen laid 298 eggs in a year. She belonged to the winning pen of White Wyandottes.

The high hen of the contest was a White Wyandotte, hen No. 1, Pen No. 35, owned by Warwick Rogers, England. She laid 298 eggs during the year. The hen standing next was likewise from the same pen and laid 293 eggs. The high individual among the light breeds came from pen 17, of the S. C. White Leghorn breed. This hen laid 287 eggs.

The mash that was used during the contest consisted of the following: 25 lbs. bran, 25 lbs. shorts, 30 lbs. corn meal, 10 lbs. ground oats, 12 lbs. beef scraps, and 1½ lbs. fine salt. A moistened mash was fed each morning throughout the year, while a dry mash was kept in hoppers before them all the time. The grain feed consisted of 50 lbs. of cracked corn and 50 lbs. whole wheat. The principal grain feed was given them in the evening, allowing them to consume all the grain they wanted.

The average mash consumed per hen was 44.35 lbs. at an average cost of $2.06 per 100 lbs. The average grain feed consumed was 43.6 lbs. at an average cost of $1.85 per 100 lbs. All feeds were bought on the local retail market. The cost of mash per hen was $.9136 and the cost of grain per hen was $.8066. The total feed consumed per hen was 87.95 lbs. at an average cost of $1.72. Straw for litter, oyster shell, and cases for shipping eggs averaged $.33 per hen. The total expense per hen was $2.05.

The average production was 195.06 eggs. These eggs were sold to commission merchants at an average price of $.29 per dozen for the year, making the average income per hen $4.75. The profit of $2.70 per hen is above the cost of feed, oyster shell, litter, etc.

The contest has always been conducted along practical lines that can be followed by farmers and poultrymen in general. Artificial illumination or impractical methods which sometimes force egg production never have been used in the contest. The hens are fed as nearly as possible a balanced ration and the high average production secured in this contest shows the value of breeding, practical methods of feeding, housing, and general management.

Feeding the hen that doesn't lay may be all right for the hen, but how about the hen's owner?

Bulletins of the Week

Beekeeping in Wisconsin, by J. I. Hambleton. Circular 174, Extension Service College of Agriculture, Madison, Wis.

Selection and Management of the Dairy Bull, by A. C. Ragsdale. Circular 127, Missouri Experiment Station, Columbia, Mo.

Assessment and Equalization on Farm and City Real Estate in Kansas, by E. Englund. Bulletin 232, Kansas Experiment Station, Manhattan, Kans.

Cold Storage on the Farm, by R. R. Graham. Bulletin 306, Ontario Agricultural College, Guelph, Ont.

Corn Selection for Exhibit Purposes, by C. A. Helm. Circular 126, Missouri Experiment Station, Columbia, Mo.

Storing Potatoes on the Farm, Circular 18, published by Minnesota Agricultural Extension Division, University Farm, St. Paul, Minn.

Sugar Beets in Minnesota, by F. W. McGinnis. Special Bulletin 90, Minnesota Agricultural Extension Division, University Farm, St. Paul, Minn.



This pen of White Wyandottes laid 1,318 eggs in a year in the National Egg Laying Contest. They were owned by Warwick Rogers, England, and bought by Chas. P. Bradley, Wisconsin.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Dehorning

Please tell me what is best to put on cows' heads after dehorning to heal the place. Is it best to saw off old horns and cut the heifers'? What is the best practice to remove the horn buttons of very young calves?

Delaplane, Va. R. A. G.

Little after treatment is needed if the instrument used is clean and sharp. It is a mistake to apply pine tar freely as some of it may get into the horn core and cause formation of pus. That may also occur when oakum or cotton batting saturated with Monsel's solution is tied on to stop bleeding. It is better to apply a mass of cotton or oakum saturated with a 3 per cent solution of coal tar disinfectant. Iodoform may be sprinkled on the wound if flies annoy.

That is the common practice but powerful, sharp dehorning shears may be used for both cows and heifers. The horns should be cut off as close to the head as possible.

Horns will not grow if caustic potash is thoroughly rubbed into the dampened skin over the horn buttons before the calf is a week old. Horn buttons that have pierced the skin may be removed with a special gouging instrument, but the operation is painful and should be obviated by chemical dehorning.

Overgrown Hoofs

There is one cow in my herd that has exceptionally long toes which make her walk very difficult and clumsy. Would you advise me to burn them? If so, in what manner?

Amity, Ore. G. C. W.

It is necessary to trim the hoofs of all dairy cows occasionally to keep their level and prevent overgrowth such as you describe. Secure the cow in stocks or a stanchion. Then cut off some of the projecting toes with hoof shears, a large chisel, or a fine saw. Then rasp into shape. Also pare away superfluous horn of the walls at the ground surface and cut out sloughing horn of the soles. Do not cut deep enough to wound the sensitive tissues ("quick") and draw blood.

Dehorning

Kindly tell me the best way to dehorn or poll my young stock. I have some very fine young stock and I would like them to grow up without horns.

Scottsbluff, Neb. A. M. S.

Calves will grow up hornless if caustic potash is very thoroughly rubbed into the dampened vein over the horn buttons before the animal is one week old. When horns have formed it is best to cut them off with sharp, clean, dehorning shears as close to the head as possible. Better have the work done by an experienced professional dehorner.

Leucorrhea—Garget

Is there any cure for whites or leucorrhea in a mare fourteen or fifteen years old, that appears healthy otherwise? She is quite bad now. This has come on in the last two months.

What would be good for a cow that gives gargety milk occasionally, which will not be fresh until spring? As she begins to shrink in her milk, it is very rich. She was fresh in April.

Zion, Ill. C. R. B.

A chronic case of leucorrhea is difficult to cure as there is infection and disease of the lining membrane of the womb. That requires opening of the womb and douching with antiseptic and astringent solution by means of special return-flow catheters. A veterinarian should be employed to apply the treatment and the mare should also be put upon a course of arsenic and hydrastis, or similar drugs used for the disease in question. Home treatment will not be likely to suffice but until a veterinarian can be employed some improvement may result if you syringe out the vagina 2 or 3 times a week with bloodwarm water containing 2 tablespoonfuls of salt per gallon and mix in the feed twice daily a dram each of dried sulphate of iron and powdered hydrastis.

At time of attack milk clean once an hour and in the evening rub in a mixture of 1 part each of turpentine and fluid extract of poke root and 8 parts of unsalted lard. Also give internally twice daily for 2 days at such times, 2 to 4 drams of formalin in one quart of new milk.

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

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One way to increase the milk flow is to feed abnormally rich foods and so-called concentrates. This is expensive and full of danger. The rich foods are costly. They put an added strain on the digestive and milk-making organs which, so often, are already jaded from overwork and forcing. Even if these vital functions do not actually break down, the milk flow drops off the instant this unnatural and expensive stimulant is withdrawn.

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The other method—the only one with genuine and permanent results—is to build up the organs of digestion, assimilation and milk-secretion to a natural vigor that will enable them to turn into milk ALL the milk values in the cow's natural diet.

The latter method is the *Kow-Kare* method. *Kow-Kare* is not a stock food. It is a compound of scientific medicinal properties that build up and invigorate the digestive and genital organs. In itself *Kow-Kare* has no food value, but it vitalizes the milk-making functions so that the ordinary cow diet is consumed and turned into the maximum milk flow.

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Cow diseases are too expensive to tolerate. A short illness may easily make a liability of a cow that ought to be a profit-maker. If disease does creep in call *Kow-Kare* to your aid promptly. Its direct medicinal action on the vital organs has won it ever increasing popularity as the reliable "home cow doctor."

So that you may know just how to treat the various cow ailments successfully, write us for free copy of our famous book, "The Home Cow Doctor."

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To make this your banner winter in milk production follow the plan that is now winning thousands of new recruits among dairymen each year. Give all of your cows a tablespoonful of *Kow-Kare* in the feed twice a day, one week of each month during the winter and spring.

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Feed dealers, general stores and druggists sell *Kow-Kare*, in $1.25 and 65c sizes. If your dealer is not supplied, order direct from us.

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Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It relieves GARGET, BLOAT, CONSTIPATION and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1.00 a package. Mfg. by LOWELL BLAISDELL & CO. NORWOOD PARK, :: CHICAGO, ILL.

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55 Main St., West Lebanon, N. H.

What Can Be Accomplished Through Co-operative Marketing

(Continued from page 625)

job is this: If New York wants three quarts of milk we should not send it four." Mr. Slocum evidently has not become convinced that the only way to do this is to keep sending four quarts until the price goes low enough to put the man who produces the fourth quart out of business and stays low enough to keep him out, even though that price is so low that it does not enable the men who produce the three quarts to get a decent living out of it.

A young student of agricultural economics was asked recently as to what would be the result if farmers in Wisconsin and other states so organized that practically all cheese produced in this country was distributed and sold through efficient co-operative marketing organizations. "It will not," he replied, "give them one cent more for their cheese." He had previously admitted, however, that co-operatives might make a slight saving in cost of marketing. Another man, who also claims to favor co-operative marketing and to be able to speak with some authority on the subject, makes the statement that, "co-operatives cannot get for the producers an appreciable larger portion of the consumer's dollar than the private agencies do." And now comes Professor Boyle, agricultural economist of Cornell University, with an attempt to explode the whole doctrine of the need of "orderly marketing". He says there is orderly marketing under the present private system and there is no dumping of the staple crops. In fact, he claims that an attempt of farmers to establish what is commonly spoken of as orderly marketing or merchandising would mean "disorderly marketing and a crude, bungling and expensive way of speculation".

Producers Subject to a Buyer's Market

These people all seem to miss the point that only in the farming industry are the producers so completely subject to a buyer's market. No one will attempt to deny that the laboring men through collective bargaining in the sale of their labor have a voice in the sale and a hand in determining the price at which it is sold. No one would, for a minute, think it practical for a manufacturer to ship his products to a score or more independent concerns in each city of his distributing territory and permit them to sell for whatever they could induce wholesalers or jobbers to bid.

A manufacturer figures up what he thinks he can afford to sell for, or, perhaps more correctly, what he thinks he can get and sends out his sales force to go after orders at that price. He does not let the first buyer be the sole judge of what the initial price shall be. The buying of shoes has not gone completely out of fashion simply because the price is two or three times what it was before the war. If consumers are willing to pay 50 cents a pound for so called New York cheese and 35 and 40 cents a pound for low grade Wisconsin cheese after it has been processed, should it not be possible, through an efficient marketing system, to induce them to buy good Wisconsin cheese in increasing quantites at like prices? And should passing the cheese from the factory to consumers cost more than producing the milk and having it made into cheese?

Fallacious Views on Overproduction

Some economists claim that agricultural production can not be regulated, that over-production is the only real cause of low prices, and that over-production can not be corrected excepting by prices so low that production is largely unprofitable. Just as soon as prices go up to a generally profitable level it will again induce over-production and a lowering of prices. If this doctrine is correct and these results are inevitable, does it not lead to the conclusion that for the great majority of farmers, prices must always be below the profitable level? In that case farming in this country for the most part must degenerate into a state of peasantry.

All co-operative marketing done so far is limited to certain special products in certain limited territory, or to small portions of staple products in different parts of the world. When the farmers establish real co-operative marketing for practically all their staple, as well as special, products, then, and not until then, can be fully demonstrated what can be done.

Herdsmen's Course at Ames

The Herdsmen's Course at Iowa State College, Ames, opens on January 5, at the beginning of the winter quarter. This is a practical course which is designed to meet the needs of those young men with live stock inclinations who wish for more practical as well as technical training along some of the specialized branches of animal husbandry. The purpose of the course is to prepare men to care for, feed, and manage their herds and flocks more efficiently. Some technical training is included in the course and live stock breeders throughout the country are pleased to employ men who have been trained somewhat technically as well as practically.

An opportunity is given for the students to specialize in the class of live stock in which they are most interested. It may be beef cattle or dairy cattle. The dairy cattle work includes studies in judging, feeding, and management of the herd. A rather detailed study is made of present day breeding operations which are being carried on by the leading dairy cattle breeding establishments among the leading breeds.

Excellent equipment in the way of buildings and live stock is available for use at the college dairy farm where the judging and feeding work is carried on. About 120 head of dairy cattle are maintained, including individuals of each of the leading dairy breeds.

For further information concerning this course, those interested should write to the Animal Husbandry Department, Iowa State College, Ames, Iowa.

Tom Tarheel says it is nice to be able to erect a fine tombstone to mother after she is gone but how much better to give her a home water system now.

Uncle Ab says that even if all the world is a stage, the best way to act is natural.

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have again proven themselves winners in the show ring as well as producers. Write for what you want. Herd Federal Accredited.
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Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.

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ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

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Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

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We are offering a son of May Rose of Westbrook Farm for sale. She is third in Class BB with 757 lbs. fat (world's record when made) and her daughter, Westbrook Ultra Rose, was a former class leader in GG. His sire, Langwater Stargazer, is one of the best sons of Langwater Steadfast. This calf, born April 11, '24, is large, well marked and well grown, with a clear nose. He is a wonderful herd sire prospect. Price $1000.

Write today for pedigree, etc.

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PRICE $500.00

LANGWATER HOLLISTON is one of the breed's famous bulls. His blood is very much in demand. The son we are offering for sale is ROCKINGHAM HARLEQUIN 100224. He is a good individual and is out of a daughter of Florham May King and granddaughter of the great Itchen May King. THIS BULL IS FIT TO HEAD THE BEST OF HERDS AND IS PRICED FOR QUICK SALE. He was born Oct. 8, 1922.

We also have several cows in calf to Langwater Holliston or his sons that we are now offering for sale at a reasonable figure. Address correspondence to

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We are line breeding these two great individuals by using our herd sire, Cherub's Dart (out of Pearl's Dot), on our recent purchases at Mr. Stout's and Mr. Marsh's sales.

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70 MILES FROM MADISON; ALL SURFACED ROAD

56 PUREBRED GUERNSEYS -- May Rose and Sequel breeding

5 BULLS, 2 herd bulls, 2 yearlings and one calf.

51 FEMALES, 25 cows (15 fresh or close up springers). Six 2-year-old heifers, 10 yearling heifers, 10 heifer calves.

Reason of sale—death of Mr. Nichalson, one of the firm.

Clean T. B. Federal test.

CHAS. A. WILKINS, Sale Manager PLATTEVILLE, WISCONSIN

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS Fond du Lac Wisconsin

PRODUCTION — TYPE

WE HAVE 70 ADVANCED REGISTRY RECORDS IN OUR HERD THAT AVERAGE 701.06 LBS. BUTTERFAT CALCULATED ON A MATURE BASIS.

Premier Exhibitor 1923 National Dairy Exposition, Syracuse, N. Y. awarded to Corium Farm Guernseys. We are offering choice Bulls sired by Cherub's Prince 41543 and Superb of Edgemoor 49590.

Send For New Price List

Grade Guernseys For Sale

200 COWS and HEIFERS TO SELECT FROM

DO YOU WANT HIGH CLASS, HEALTHY, GRADE GUERNSEYS? We are offering you a choice of 200 head right now,—some of them close springers. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself.

Every animal sold, guaranteed to be as represented.

RIVERVIEW FARM, Lloyd L. Dewey MUKWONAGO, WISCONSIN
IN WAUKESHA COUNTY

A REAL SHOW BULL — The Best Calf We Have For Sale



Ada's Cherub of Chippewa was born March 15, 1924. He is very well grown, and an exceptionally good individual. He'll show very well next fall as a junior yearling. His sire is a show son of Cherub's Prince and his dam was one of the best cows in our herd. The price makes him a bargain.

Write today for picture, pedigree, etc.

L. P. MARTINY CHIPPEWA FALLS, WISCONSIN

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

Serviceable Guernsey Bulls

We have 35 serviceable bulls for sale here now at very reasonable prices. We are also offering several carload of good grade cows and heifers and can supply pure-bred females in carload lots.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec., Fort Atkinson, Wis.

This Blood Sells Fast!

Our bull calves are either sons of Anton's King Confidence or out of his daughters. They sell so rapidly that only in rare instances are we able to keep them until they are old enough for service. If you want a bull possessing this blood to head your herd, buy a calf six months' old, raise it yourself and save money. A. K. C. has gained a reputation for siring mighty good udders along with the other desirable characteristics. A bull of our breeding will make money for you and improve your herd.

Hoard's Dairyman Farm
FORT ATKINSON WISCONSIN



ANTON KING CONFIDENCE 43517

Increasing the Consumption of Milk

HOARD'S DAIRYMAN:—The dairy business of the United States has enormously expanded. Daily we are reading about feverish activities in all parts of the country to create new dairies. We are facing a temporary overproduction of milk and the end of the increase is not in sight. Accordingly, the price of wholesale milk was during the last summer slowly but steadily falling. And the winter is coming when the consumption of milk by quite natural reasons is decreasing.

What then can we do to stimulate the consumption of milk? Have we done everything in our power to furnish our customers with clean, wholesome milk? And my friend and next neighbor in the dairy business tells me, "Yes, we have done our best; our improved methods have cost us such a lump of money that we cannot do more at present."

I had thought over the matter during the last days carefully, had formed my own opinion, shrugged my shoulders and asked him to take me to his dairy barn. They had started with the milking, they had also started feeding silage. It was the top of the silo they were feeding from and the silage had not yet undergone thoroughly that process which makes the air in the dairy barn at feeding time so penetrant and sour smelling. But the smell was already here. All windows were open, an excellent ventilation was provided for, but a gentle breeze was moving the silage impregnated air forth and back over the open milk pails. There they were, nice, sleek cows, well groomed, well fed, clean milkers, clean, modern milking methods, but, that glass of milk I was asking for in the adjoining milk room had a distinct smell and taste—a silage smell. I asked my friend also to take a good sip from his milk. He said, "I don't care much for milk in the winter season." There we had arrived both at the same time at the root of the evil. Both of us were heavy milk drinkers during the pasture season but we did not much care for milk during the stable feeding period. Both of us finally confessed one to the other that the smell of silage in the milk was what had cut down our appetite for milk, subconsciously perhaps, but it had just come now to our conscience there in the milk house.

With all our great zeal to improve our dairy methods, we had just overlooked that one "little item"—namely, to keep out of the milk that penetrant smell and taste which, when taken in our clothes over to our house, causes our wives again and again to protest and to demand that we at least should change our clothes. How then can we expect our customers to stick to their regular glass of milk during the winter period when we impregnate daily their milk with such a disagreeable smell and flavor.

But can we change this condition? Certainly we can. I tried it out and it works fine after a couple of days transition. Simply by feeding the silage after the milking makes wonderful improvement. I am feeding during the milking time one-half of the grain and one-quarter of the hay, and after the milking the silage with the second half of the grain on the top of it and finally the rest of the hay.

Now, brother dairymen who have sinned until now as I have, go and do as I am doing now.

Pennsylavnia. FRANK LAUBNER.

Rhode Island's new champion Holstein cow for the production of milk and butter in ten months as a junior three-year-old is Wallum Johanna Ormsby Vale, of the J. E. Singleton herd. Her record is 19,107.5 lbs. milk containing 661.48 lbs. fat—equal to 826.8 lbs. butter, according to the Advanced Registry office of Holstein-Friesian Ass'n of America.

HOLSTEINS

$100.00

Born Jan. 17, 1924. Dam just completing 305-day record at 4 years old of 540 lbs. butter, 12,000 lbs. milk. A splendid individual. For further information write

J. A. SCHMIDT & SONS **Ladysmith, Wis.**

"Federal Accredited Herd"

HEALTHY HOLSTEINS

If you want either purebreds or grades from federal tested herds and sold on a retest guarantee write us. Prices are very reasonable.

ROCK COUNTY HOLSTEIN BREEDERS' ASS'N.
John W. Jones, Sec. MILTON JCT., WIS.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

Ormsby-Homestead Bulls

Out of A. R. O. dams and by a son of S. P. O. M. for sale at farmers' prices.

MILFORD MEADOWS STOCK FARM
J. C. Cort, Manager, Lake Mills, Wisconsin.

50 HEAD Complete Dispersal Sale 50 HEAD

REGISTERED HOLSTEINS—Famous John M. Kelley Herd

December 9th A Herd of Unquestioned Type and Proven Production, to be Sold at **Baraboo, Wis.**

Three years of phenomenal success on the show circuit. Yearly records up to 828 from 19,000 lbs. of milk on two-year-olds and up to 931 lbs. of butter from 26,885 lbs. of milk.

Unbeatable get of sire class—grand champion two-year-old, remarkable calf herd, exceptional jr. yearling daughters of cows up to 37 lbs. in seven days and 1344 butter in a year, to be sold—as well as a dozen "knockout" bulls including the herd sire, Canary Paul Heilo Aaggie.

A most attractive combination of Homestead breeding has been woven into the herd. Kelley will present the greatest combination of type and yearly production ever offered. On Dec. 9th he is going to take the gamble out of the public sale business.

The herd is absolutely clean and healthy and will be sold on a retest.

For Catalogs Write

FRANCIS DARCEY, Manager **WATERTOWN, WIS.**

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

JOHN H. PULS **ALLENTON, WIS.**

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*

Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".

Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.

Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota



Sir Walker Segis Homestead

100 HOLSTEINS AT AUCTION

BACON-ENRIGHT ANNUAL SALE!

Grand Forks, N.Dakota **December 11th, 1924**

65 PURE BREDS. Choice consignments from the noted breeding herds of J. D. Bacon, Grand Forks, and M. L. Enright, East Grand Forks. Included are daughters of "39th", "41st" and granddaughters of "Piebe", "Count" and Sir P O M. The kind you will like. Good individuals of popular breeding.

35 HIGH GRADES. Mostly heavy springers. Young cows.

Send for Descriptive Folder

TWIN CITY PEDIGREE & SERVICE CO., Market Bank Bldg., Minneapolis, Minn.

A Yearly Record, Serviceable, Ormsby Bull

Born July 30, 1923. A good individual, mostly white in color. A grandson of Sir Pietertje Ormsby Mercedes. His two nearest dams average 995 lbs. butter, 23,000 lbs. milk in 365 days. The price is $175 F. O. B. Northfield.

CARLETON COLLEGE FARMS, **Northfield, Minnesota**

FEDERAL ACCREDITED HERD

DISPERSAL SALE!

Unaland Farm Holsteins

45 -- ALL REGISTERED -- 45

Monday, Dec. 8, Valparaiso, Ind.

The entire dairy herd owned by the late Francis X. Bushore. It includes choice young heifers and bulls from A. R. O. cows and the herd sires Winterthur Ormsby, a son of that great cow, Bess Johanna Ormsby, and Unaland Korndyke Hengerveld, a son of Maple Crest Korndyke Hengerveld.

All animals Tuberculin tested and guaranteed

This herd produced the first 1,000-lb. cow in Indiana --- state champion for 3 years.

R. E. HAEGER, Auctioneer **S. T. WOOD in the Box**

Catalogs ready sale day

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Tweatyman, Manager Rochester, Minnesota

Richly Bred Holstein Bull Calves

out of A. R. dams and sired by our two richly bred herd sires—**King Piebe Ormsby Mercedes**, a 35-lb. son of Sir Korndyke Bess and every dam in pedigree over 22 lbs. and **King Pietertje Mercedes Ormsby**, a son of Sir Pietertje Ormsby Mercedes and out of a 19-lb. senior two-year-old dam.

Herd tuberculin tested. Write for information or visit herd.

P. FROST SPAULDING FARM CO
C. L. Spaulding, Mgr. Warren, Minn.

GRANDSONS of SIR P. O. M. 37th

from dams with long time records up to 1024 lbs. butter in year. Federal Accredited Herd. Prices from $75 to $200.

B. A. NORRIS Anoka, Minn.

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

Registered Holstein Sale To be Held at **Berea, Ohio, Dec. 17**

Berea is located at edge of Cleveland. Take bus or electric at Public Square in Cleveland. Sale at Fair Grounds.

65 REGISTERED HOLSTEINS—Mostly springing and fresh cows. Good, straight, sound cattle. Carefully selected. Guaranteed breeders. Tuberculin tested and sold subject to 60-90 day retest. Many from accredited herds. Carload buyers should arrange to attend this sale. If additional cattle are wanted your order can be filled here in northern Ohio. Thousands of registered cattle in this territory. Write for catalog.

W. F. Andrews, Auctioneer. S. T. Wood, Pedigree expert

Sale managed by

OHIO HOLSTEIN-FRIESIAN ASSOCIATION, E. M. Clark, Field Sec'y., 10509 Euclid Ave, Cleveland, Ohio.

Before You Buy A Bull !

Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

Gustave Pabst Hollyhock Farms

(In Waukesha County)

F. J. Southcott, Manager, Dousman, Wis.

Clean herd under State and Federal Supervision

Ten Holstein Heifers FOR SALE

Echo Sylvia and Sir Veeman Hengerveld breeding. Dam of sire, twice a 30-lb. cow and great yearly record. Ages range from calves to yearlings.

L. A. KIMBALL Lake Geneva, Wisconsin

Ollie-Ormsby

BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.

WALCOWIS FARMS Lake Geneva, Wis.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION

133 Barstow Street Waukesha, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION

S. W. Pierce, Sec'y, Randolph, Wisconsin

When You Want Holsteins!

Come to Jefferson Co. 1000 herds to select from. Our secretary, an experienced Holstein man, will assist you free of charge. Write

JEFFERSON CO. HOLSTEIN ASS'N, T. W. Anthes, Sec., Jefferson, Wis.

BUY YOUR HOLSTEINS

where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.

Bull Calves For Sale

We have a few male calves from choice dams for sale. They are sired by Meadow Holm Jolie Pontiac Hartog—our 1173-pound yearly record sire. Lots of milk records back of this breeding.

PRICE $50.00

SLIVKA BROS. Plainview, Illinois

Oatman Farm Holstein Herd

FEDERAL ACCREDITED

Every cow has an A. R. O. record. World's record and grand champion breeding. Write for bull sale list.

O. A. JENS, Mgr., DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.

30 Extra Fancy Grade HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

RIVER MEADOW FARMS, Portlandville, N. Y.

Foundation Stock

HEIFERS, COWS, CALVES both sex of good breeding, from 2 mos. old up. Prices within reach.

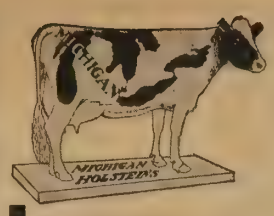
ORCHARD CREST FARMS, SCHOHARIE, N. Y.

High Testing Show Bulls

ALL AGES

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD Norwalk, Iowa



Buy Michigan Holsteins



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several car loads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan

OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

FOR SALE

Your Choice of 40 HEAD REGISTERED HOLSTEINS, fresh cows and springers, calves and heifers. Cows bred to, calves from 42-lb. 7-day sire, 1,290 lb. year. Short of barn-room, must sell.

OSCAR R. RUMSEY, Hudson, Mich.

D. D. AITKEN, Flint, Mich.

Breeder of Holstein-Friesian Cattle

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.

FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

IF YOU OWNED

SERRADELLA KING DORESS you'd be mighty proud to use him. His dam made 28.38 btr, 527.5 milk 7d and in 229d S. O. 305d test has 17,281.4 lbs. milk. She is a full sister in blood to Dora Riverside Colantha with 31.90 btr, 580.9 milk 7d, 122.37 btr 2176.5m at 3½y and 28.91 btr 628.8m 7d 2½y (State milk record when made) 114.81 btr 2438.0 milk 2½y 30d and winner of 91 points in 1923-24 Honor Roll. Born March 11, 1924. Straight as possible to be and well grown. Price 175.00. Send for picture and pedigree.

SERRADELLA FARM, Albert E. Jenkins, Mgr. A Clean Herd OSCODA, MICH.

3 High Record Bulls FOR SALE!

One out of a 29-lb., 1,108-lb. four-year-old daughter of King Hengerveld Model Fayne, a 30-lb. grandson of King Segis. One out of a 31-lb., 1,185-lb. daughter of Fairview Pontiac Beets Korndyke. Both of these are sired by a 38-lb. son of Judge Segis.

I am also offering a son of Sir Ormsby Pontiac Segis out of a 36-lb. daughter of King Segis Pontiac Superior.

Write today if you are interested in a good bull. I will be pleased to send pedigrees on request.

LILLIBERK FARMS, J. F. Berkheimer

P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.

R. 3, PONTIAC MICHIGAN

Ready For Service

NEWBERRY PROMETHEUS KOO No. 404300

Born: March 15, 1923. A well grown, dark colored bull, ready for heavy service.

Sire: A 37-lb. grandson of King of the Pontiacs and the famous 35-lb. show cow, WOODCREST DORA DE KOL.

Dam: Houwtje Prometheus Segis. At 9 years Butter, 7 days, 29.92; milk, 599.3. Butter, 305 days, 864.34; milk 20,514.1.

Second Dam: A 26.7-lb. 4-yr.-old daughter of Northern Fobes Denver, sire of 59 A. R. O. daughters, 4 from 30 to 39.87.

Remember—this bull and the two yearlings advertised last week are the only bulls past a year old for sale from all our state herds and the winter breeding season is just starting.

Send for our list of bulls for sale by Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICH.

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



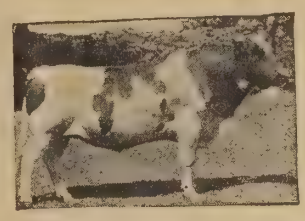
We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

Iowana Farms' Junior Herd Sire



IOWANA STAR FAYNE

An outstanding Homestead sire. 4 of his full sisters one a Jr. 2-year-old average 22,675.7 lbs. milk, 898.34 lbs. butter in a year.

SIR JOHANNA FAYNE 42147. 75 A. R. daughters. His daughters have been exceptional long time producers and winners in the show ring.

SIR FAYNE CONCORDIA 35227. 27 A. R. O. dau's.

JOHANNA DE PAULINE 4th 60992. M. 582.9, 7 da. B. 25.47 7 da. Private herd record 17663 milk and 714.3 butter in a year.

HOMESTEAD JR. DE KOL 2840. 73 A. R. O. dts

GRACE FAYNE 2D 44124. Butter 26, milk 677 7 da.

SARCASTIC LAD 23971 34 A. R O. daughters.

JOHANNA DE PAULINE 42169. b. 20, m. 437.6 7 da

STAR WATSON 71898 Milk 529.4 lbs. in 7 days. Butter 22.79 lbs. in 7 days. 7 A. R. O. daughters. 4 above 20000 lbs. milk in a year. One of the breed's greatest foundation cows.

CHIEF PIEBE OAK DUCHESS 28176. 22 A. R. O. dtrs. Ollie Watson Prima Donna. butter 31.1, milk 618.7 in 7 days.

OLLIE WATSON 5th's PEARL 59175. Milk 361.7, B. 14.65 7 da. 4 yr 15 da. 2 A. R. O. daughters

PIEBE DE KOL BURKE 25368. 28 A. R. O. dts.

LADY OAK 2d 39947. Butter 21.49, milk 492.9 in 7 da.

PEARL OF THE DAIRY'S JOE DE KOL 23450. 76 A. R. O. daughters.

OLLIE WATSON 5th 48168. B. 16.59. m. 398.2 7 da.

He is being bred to the daughters of Meadow Holm Ona Hartog King as well as to many of our good Homestead cows. His sons and daughters are outstanding. We have a few of his sons from A. R. O. dams for sale.

IOWANA FARMS DAVENPORT, IOWA

UNITED STATES TIRES ARE GOOD TIRES



USCO CORD

The *Good* Low-Priced Cord

THERE are hundreds of thousands of car-owners in this country who want a good low-priced cord tire.

Their requirements do not call for the extra mileage that is built into U. S. Royal Cords.

While they do not expect to get a tire as fine as the Royal Cord without paying the Royal Cord price, they do want a full money's worth of dependable service and dollar value.

It is to meet these requirements that the makers of U. S. Royal Cords have produced the USCO Cord.

The USCO Cord is an all-black tire. Its tread is broad and flat with good high shoulders—giving splendid road contact and non-skid protection.

The USCO Cord is fully warranted and carries the name and the trade mark of its makers.

It comes in 30 x 3 inch and 30 x 3½ inch clincher, and 30 x 3½, 32 x 3½, 31 x 4, 32 x 4, 33 x 4 and 34 x 4 inch straight side—all the sizes for light sixes and fours.

United States Rubber Company



How MOBILOIL "E" *wins your warm* cold weather friendship

THE first snow-storm—Mobiloil "E" in your engine. You go out in the morning to start up.

A few more turns with the starter, but that is all. Correctly lubricated, the engine turns almost as freely as in warmer weather. With judicious use of the choke and a slightly richer mixture, your Ford will give you the same reliable service in winter as in summer. And with the lightest possible burden to the battery.

For Mobiloil "E" flows freely in the coldest weather. The moment you press on the starter the oil splashes up and begins to feed to every frictional surface—including the close-fitting bearings and clutch plates.

So although the cold cylinders make it harder for the gasoline to vaporize, there is no additional difficulty imposed by congealed oil which may cause stiffness and drag between moving surfaces. Mobiloil "E" lets all the parts move freely—even on the coldest days.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Volume LXVIII, No. 22 Fort Atkinson, Wisconsin December 12, 1924

Dairying in the Ozarks



THE Ozark Dairyman prospering with the rapidly growing butter fat production of the Ozarks, has everything his way today. Land, ideally located, is still reasonably priced. Blue grass flourishes, and the grazing season is ten months long. Gentle hills give natural shelter from winter winds—and these winds are further tempered by an average winter temperature of 41.6 degrees. The Ozark summers are as ideal for dairying as the winters—with an average temperature of 78.9 degrees. To top such favorable climatic and grazing conditions, is the advantage of Ozark water—clear, cold, pure—gushing in springs from the hillsides, running in sparkling streams and rivers throughout the Ozark territory.

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These conditions are behind the rapid growth of the dairy industry in the Ozarks. They make it possible for a man to start with much less capital, with smaller outlay for animal shelter than would be necessary in the north, and with every opportunity for success. All the forces of nature are in his favor—and efficient railway service provides the outlet for his products.

Hard roads, good schools, progressive, growing communities and the healthful climate make the Ozarks a most desirable homeland. In such surroundings the Ozark Dairyman is a big factor in a growing state. Write me!

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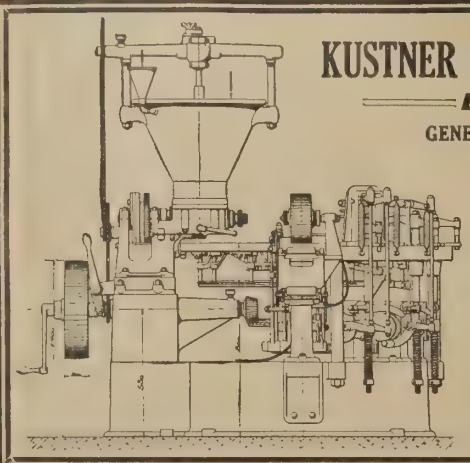
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When Writing to Advertisers, Please Mention Hoard's Dairyman

In The Day's Work

You Can Depend On Him

ELWOOD ERICKSON, NEW YORK

I HAVE a friend who bears this splendid reputation. He is spoken of as a man whose word is as good as his bond. He is very slow in making promises. Before he commits himself to any proposition he deliberates the matter long and seriously. So careful is he in his commitments that at times he exasperates his more impetuous associates but once he has given his word he never falters. He sticks to the end, cost what it may.

He is not a conspicuous man; he probably would be lost in a crowd. Before the more flashly achievements of his more brilliant competitors, he would be passed over as uninteresting. The world puts a high premium upon brilliance. And yet he is conspicuous because he is a rather rare man in any community. It is really the odd man of whom one can say, "you can depend upon him". There are any number of men who will willingly promise to do a thing. When they make the promise they are entirely sincere. They have no intention of going back on their word. But when they begin to think the thing over, some new phases enter in and they decide, much to your dismay, to change their minds. Smiling affability too often results in blank denial.

Dependability is a common garden variety virtue, yet upon it the whole structure of human society is built. So closely are we linked together in all our human relation that we cannot get along without confidence in our fellows. Every time we enter a public conveyance we commit our lives to the keeping of the man who is running the train. We depend upon him and his trustworthiness to do his job. Every time we place our funds in a bank we express our confidence in those who are in charge. We believe in those who sell us food and eat the food which they sell us because we believe in them. When men break this trust and fail in their responsibility, society steps in and severely punishes them, not so much because of the harm done to an individual but because of the harm done to the structure of society itself. Society for its own preservation demands of its trusted servants that they create the reputation of my friend as those who can be depended upon.

No finer compliment can be conferred upon any man by his fellows than to say that he can be depended upon. Those more highly endowed and specially gifted may receive the wilder plaudits of men and reap the more generous rewards. And we need them in this rather dull and prosaic world. But the quiet man who is always at his post in season and out, who, as Page said of Earl Grey in England, "You find him tomorrow where you left him yesterday"; is the sort of man who is doing the real work in the world and who is most needed. When the mariner adjusts his compass, he does not fix the needle on a comet. He turns it toward one of the fixed stars less brilliant but more sure than the flaming comet which rushes through the heavens with a trail of glory and then drops into blackness.

Said an employer recently: "I never hire brilliant men. They are too likely to leave you flat. They can start big projects and get you all steamed up but when the smoke has cleared away you are nowhere. I hire steady, sober, earnest men who are on their jobs all the time and who can always be found on their jobs. This business has been built up by the faithful plodders and those are the sort of men whom I seek."

"You can depend upon him"—what a comforting feeling of confidence and assurance such a reputation carries with it. Never a day passes but that some black soul turns some dastardly trick upon his fellows—never a day but that we meet trickery and pettiness and impositions. It becomes difficult at times to think kindly of our human kind. Then one turns to one of these quiet and sure friends without guile. It is like coming into a peaceful harbor after battling the storm outside.

Seward, Lincoln's great secretary of state, survived his leader but a few years. When he died his friends placed a simple epitaph upon a simple stone over his grave at Fort Hill, Auburn, New York. There was no reference to the many great achievements which marked his long political life, no list of his services during the Civil War. There was just these simple words: "He was faithful."

All the other achievements of men fade into insignificance before this. Whatever other record we may be able to leave behind us, nothing so noble as that men might say of us: "You could depend upon him."



QUEEN OF YORK

Walker White & Son of Kosciusko County have developed a new champion Guernsey cow of Indiana, Queen of York 38226. Mr. White's record is of especial interest in that it was done on a ten-acre farm near Wawasee Lake in the midst of the greatest summer resort settlement in Indiana. Mr. White who for a number of years was a farm manager in Ohio, built a home near Wawasee in 1921 and decided to get Guernsey cattle. He bought "Old Queen" at the Elkhart County Guernsey Breeders' Association sale where she had been consigned by William Spaulding. The cow was placed on test last year starting in her 12th year and made a record of 15,571.30 lbs. milk and 717.98 lbs. of fat, making her the state champion mature cow of Indiana. The cow did not receive exceptional care and was only milked twice a day a good part of her year.—T. A. PARKER, Indiana.

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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From Cotton To Cows

F. H. JETER, NORTH CAROLINA

WHEN Julian Nipper of Wake County, North Carolina, decided to change from the cotton plow to grain drill and to quit cotton in favor of cows as his money crop, he approached the change with some hesitation, though with a feeling that the cows at least could treat him no worse than had his cotton in the year 1920. So he made the change. It took courage. Mr. Nipper was married and had children dependent upon him for daily bread. Probably it was because of them that he decided something drastic had to be done.

Mr. Nipper had taken over the place belonging to his father and had assumed active management of it. With aid of one laborer he worked a two-horse cotton farm. His soil was poor as is most of the soil in his immediate vicinity, having been farmed to cotton with the aid of fertilizers by Negro tenants for many years. He had been working hard raising about eight bales of cotton, a little corn, and some roughage—just enough to feed the live stock and a cow. The year 1920 decided him though that he had had enough of cotton. He saw that the crop would not pay his fertilizer bill and right then he made up his mind that he was through with a type of farming that wouldn't pay expenses, much less allow him any returns for his labor.

"I have that crop of cotton out yonder under a shed now," he told me recently in discussing his change. "I guess I could have sold it and made some money last spring but the fact is we are not so pushed for money now and I'll sell the cotton when I need cash."

He was not entirely without experience with cows for he and his wife had kept one cow since they were married. Then they added two and as time went on were buying a good cow now and then to add to the herd. They sold milk in Raleigh when there was a demand from one of the ice cream plants but when there was no demand the milk would be churned and the butter and buttermilk sold in the Capital City.

When the low prices of 1920 came along, Mr. Nipper took his leap in the dark. With the money he had available, he increased his herd, went in with two of his neighbors so that they would have a worth while supply of milk and then made a trade with the Pine State Creamery in Raleigh to sell the milk to this organization. The deal was made and Mr. Nipper became a live stock and grain farmer.

Since 1920 there has been no cotton on the Nipper farm. Nor does the owner have any regrets over the change. His soil is increasing in fertility, he doesn't have so much work to do in the field nor pay out his hard earned cash for fertilizers. He does buy some grain feed for his cows because he has not yet cleared up enough land on the place to produce all that he needs. Last year he had to buy roughage because he had more cows than he had feed. But he faces the coming winter with a plentiful supply of good legume roughage. Every available acre on the Nipper farm is sown to either soy beans or cowpeas for hay and on the day of my visit the mowing machine was clicking right merrily about over the place.

Such grain feed as he does buy, he contracts for at wholesale prices and mixes his own feed according to information secured for him by County Agent John Anderson. He is also keeping an active record of the milk production of his cows and knows just which ones are paying and which are boarders. The boarders he is dispensing with as fast as he can replace them with better producers. He buys only high grade acid phosphate as a fertilizer for his crops and uses this with the manure and legumes to build up his land.



SOY BEANS FOR LEGUME HAY ON NIPPER FARM

"When I grew cotton," says Mr. Nipper, "I had to buy high priced complete fertilizers and uso nitrate of soda as a top-dresser or I made no cotton worth picking. Now, with the aid of manure, the legumes, and acid phosphate, I am building up my land, am securing better yields of corn and hay each year, and am getting these results with less labor. We are milking 18 cows now and I sell about 40 gallons of milk per day. Two of my neighbors are in with me on this route and we haul the milk to the creamery each day, taking turn about. From my own milk, which now averages me about 32 cents per gallon, I am getting an average of $12.80 per day or $384 per month. My grain feed costs me about $2.90 per day or $87 per month, which leaves me nearly $300 per month as payment for my labor and the incidental expenses about the farm."

But this is not all. Mr. Nipper has a good flock of poultry, some Hampshire hogs, and has time to grow truck crops for sale. He says, "We sell around $150 worth of truck during the season. Last winter and spring my wife sold over $40 worth of salad from a small piece of land and I used the turnips as feed for my cows. We also sell about $50 worth of eggs during the year and about $100 worth of pigs. This season we have again planted a good field of turnips and I will use the roots as cow feed and sell some salad. I am also trying out stock beets since I haven't yet been able to build a silo. I believe the stock beets are going to turn out all right and make a good succulent cow feed.



SUDAN GRASS FURNISHES SOME ROUGHAGE ON NIPPER FARM

County Agent John C. Anderson and Mr. Nipper looking over the second growth. First growth was even better.

"We have only 217 acres in the old place. Most of my land is in woods and pasture. I have one pasture for dry cattle and calves up on the old home place just above here and a fairly good pasture for my cows right across the road. I also have a field, back of the house, that is sowed to permanent pasture. Because of the drouth last year only the lespedeza caught, however, and I am sowing the field over again this fall.

"With crops to feed the cows, I have about 35 acres in soy beans and cowpeas, about five in corn and five planted to truck crops. The remainder is in woods and pasture."

Mr. Nipper planted some Sudan grass this year and has made two cuttings of fine hay, already. He was busy harvesting his legume hay at the time of my visit and it was turning out heavy yields. His corn is about the best that one can find in Wake County this year and though the acreage is small the yields will be large. He is determined to have enough roughage for his cattle this winter and is cutting all the grass and legumes that he finds on the place. He also plants winter cover crops for early spring grazing and finds that he can keep something growing on his small acreage most of the time. These crops, together with his pasture, keep his feed cost low and make his margin of profit good.

Of course, it takes work. Two men are busy on this little farm all the time. Although his wife teaches school in a building close by, she also finds time to help with the poultry, the housework, the two children, and the cows. She has a flower garden at one side of the house, not forgetting that there is also something needed to make a good farm home besides just money. The house is equipped with electric lights, as is the barn, and the cows have comfortable home-made stalls bedded with a plentiful supply of pine straw.

Mr. Nipper has one of the ten million which carries the wife and children to school and another of truck design to haul his milk to Raleigh. He made the plunge. He left the old and tried the unknown, but his courage has been rewarded. With his cows and the type of farming that goes with them, he faces the future more confidently and courageously than when he mortgaged his body and soul to grow cotton. He is still only a small farmer, but he is making his small farm earn him a comfortable living; and, as fast as he can, he is adding other sources of income and other conveniences and labor-saving implements about the place. The old, washed, rocky cotton farm of 1920 is now rapidly being replaced with a new one on which green grazing crops are growing and where cattle, hogs, and poultry convert the crops into ready money.

HOGS SHOWED WAY TO PROFITABLE DAIRYING

G. R. HARRISON, IOWA

DEVOTION to his herd of pure-bred Duroc hogs a few years ago caused O. S. Larson, of Iowa, to go into the dairy business. In the beginning he had a mixture of breeds, but today he has forty head of Holsteins that eat corn silage, alfalfa hay, sweet clover, and regular feeds of ground grain. Not long ago I ranged over Mr. Larson's sweet clover pasture fields with him and heard something of his success.

In the beginning he was bound to have skimmilk for the pigs that he fitted for the pure-bred sales which he held annually. Cream for the market was only secondary, but he noticed that this brought a surprising income, and he became so interested in the cows that today they are holding first place, and his two sons do the milking night and morning with a milking machine. At the end of the electrically equipped dairy barn stands the tall, hollow tile silo and alfalfa, sweet clover, and corn are grown mainly so that the Holsteins shall have the fat of the land.

To get more pasturage from fewer acres Mr. Larson began with sweet clover about four years ago. Never has it been a disappointment. The cows have never refused to eat it; it has never given any taint to the milk; it has improved the land, provided hay, and given all the pasture the herd needed through the whole growing season.

That bright morning not long ago when I walked over the rolling fields on the Larson farm, I found approximately forty head, old and young, grazing on only ten acres of second-year sweet clover. They had it picked closely to the ground, but still there was a good bite. In conjunction with this field were a few acres of bluegrass through which the herd must pass going and coming. They do not linger in it long, evidently preferring to eat the legume with the rather pungent taste.

Close picking of the sweet clover, together with a bit of bluegrass and with good feedings of dry grain ration in the barn, avoid any danger of bloat from the sweet clover, Mr. Larson is quite sure. Never has he had any trouble from the bloat which has at times beset some other herds that ate sweet clover alone.



COWS ON SWEET CLOVER PASTURE ON O. S. LARSON'S FARM, IOWA



MODERN HOME OF O. S. LARSON, IOWA

Now Mr. Larson told me how he had sown this ten-acre field last year with a nurse crop of oats, and how after taking off the oats he had cut fifteen good loads of sweet clover hay in the fall. And now in the spring here was pasture for the herd of milk cows.

Away over the farm somewhere he had sown another field last year—one of eleven acres—to wheat; from that he took fifteen loads of hay last fall also. It had been turned back for corn.

Milk from alfalfa, corn silage, sweet clover, and ground grains, all raised right on the farm, is the route to better prosperity, was the impression I received from this judicious farmer and dairyman who is far from the regular milk market but who finds much satisfaction in selling the butterfat to the town buyer and feeding the skimmilk to his Duroc pigs.

"There is no real dual-purpose cow," Mr. Larson told me. "One must choose either for beef or dairy, and I chose for dairy."

He had in former years some Jerseys and Guernseys, and then a practical dairyman who came to sell him a milking machine assured him that finally he would have all Holsteins. It has not quite come to that yet, for in the herd I found one Jersey and one Guernsey. "They are mighty good cows but they spoil the looks of a Holstein herd," he thought.

Hand milking is a very unlikeable task for a young man, but a milking machine is a fascination for him. Now the two Larson boys operate the milker, one boy on either side of the barn going down the line milking, each milking two cows at a time while the machine is run by electricity that also lights the barn.

"To realize how much the boys detest hand milking, one should be present when the juice goes off," said Mr. Larson. "Once or twice a year this happens, and in that case the stools and the pails come into vogue again. The boys do the work, but they do not enjoy it like they do the milker."

It is a day of machinery, and giving the boy some of it to operate may be the very means to keep him on the farm. This is what the father in this case believes.

KIPLING'S SIX MEN

M. T. BUCKLEY, WISCONSIN

KIPLING said that he had six honest, strong men who taught him all he knew. They were What, Why, When, How, Where, and Who. These six men were at the service of the Washington County, Wisconsin, Agricultural Committee all day while it was making a tour of some of the projects fostered by the county agent.

The first "Who" we met was Casper Klunke and a wide-awake son, at whose farm County Agent Button had informed the committee we were to see a cow tester at actual work in one of the county's six associations. These associations are a permanent feature of the agricultural life of the county. One hundred seventy-five farmers belong to them and 3,000 cows are being tested.

Well, what good are they? Let Mr. Klunke answer. He turned to the herd book where he had the statistics. "Here is cow number six. This column shows the pounds milk, the next the test, and the next the production of butterfat. Charged against her is the price of pasture, feed, etc. For the month we cleared $14.86 on her."

"Let me show you another interesting fact," said his son. "This cow, for one dollar's worth of feed, produced $3.59 worth of milk, while the poorest cow in the herd produced only $1.42 for $1.00 worth of feed. She is a poor milking machine. The cow tester shows up the poor cows."

"Come over this way," continued Mr. Klunke. "Here is a calf, a daughter of our highest producing cow. I was offered seventy-five dollars for her when she was two weeks old." There it is again, for figures talk. If Mr. Klunke was not testing, that calf, to him, would not be distinctive. If she were for sale, he would let her go for butcher prices, but she had a very high producing dam as shown by test, and that gave value to her. These facts ought to prod a man who is not using his head.

Kipling's fifth serving man, "Where", directed Mr. Klunke when he purchased a herd sire. "Where did you get him?" "I got him from a cow testing farmer," came back the answer. "Would you buy a sire from a farmer who was not testing?" "Oh, no, that would be wasting money."

When we studied botany in the early nineties, we were taught that sweet clover was a weed. We were a little amazed when Mr. Button introduced us to six acres of it on a substantial farm operated by Reinhold Kressin. There were thirteen contented cows in there and they were eating the stuff. They appeared to like it. Our astonishment got the best of us and we blurted right out, "Will those weeds produce milk?" Mr. Kressin smiled at my ignorance of modern farming and very adroitly relieved my impulsiveness by stating, "These thirteen cows have been on this pasture since early spring. The pasture has been plentiful and my milk flow has been just as good as when the herd grazed on red clover."

"Where did you get this idea?" he was asked. A significant reply followed this question. "Oh, I have been down to the University for two or three short courses and I still keep in touch with it through its farm bulletins." That was a refrain we heard frequently through the day's trip. The university, county agent, farm bulletins, agricultural papers seem to be the source of a great deal of inspiration. The what, why, the when of these institutions are slowly but surely re-making farm life.

Mr. Button's next exhibit proved him to be human. It was a failure. It was an experiment in potash fertilization on the farm where brains were mixed with the soil. The owner, Mr. Paul Bast, experimented with potash last year, with excellent results. Encouraged by last year's success, he used 2,000 lbs. of 0-8-24 mixed fertilizer on four acres of low land that was weak in potash. "Why we were not successful this year," said Mr. Bast, "is hard to tell. Nature plays hob with us all at times. It may be due to the year, or it may be caused by the mixture used the second year. I am satisfied with having made the experiment. Although a failure so far as profit is concerned, I have made the experiment and some good will come of it."

A few miles further on brought us to two more Bast farms that have been in his family for nearly 100 years. Eugene represents the fourth generation of stable, thrifty, progressive German farmers that can be found in all parts of Washington county. He is a corn club boy and made a speech. It was one of those clean-cut, sentence-sure, compositions that commanded attention. He surprised the committee. He did not surprise the writer for he knew Eugene had a teacher who is a specialized leader of the community in its labors of educating its children. He is awake, progressive, and eager, accomplishing substantial and permanent things.

"I am raising certified potatoes now, and the demand is such that all my potatoes are taken right from my house. I have been a potato man all my life, but modern thought has made my work more scientific and interesting. I am indebted to the county agent, Mr. Button, for that interest and science." Thus spoke Jacob Bast in explaining another project which is fostered by the county agent.

"Are you fellows getting tired?" asked the county agent. The chairman of the town of West Bend answered for the committee, "I thought I knew pretty well what you were doing from your annual reports to the county board. This trip visualizes that knowledge. I wish we had every

(Continued on page 685)

Suggested Plans for Running Cows Loose

WILBER J. FRASER, University of Illinois

HIGH producing cows do a large amount of work each day and because of this, every effort should be put forth to make them comfortable. Such cows have large udders and therefore require much space in which to lie down. For a lack of space they are made uncomfortable and sometimes injured by narrow stalls, and hence limited in their production. There is no more comfortable way to house a cow than to allow her to run loose, if other conditions such as temperature and amount of bedding are right.

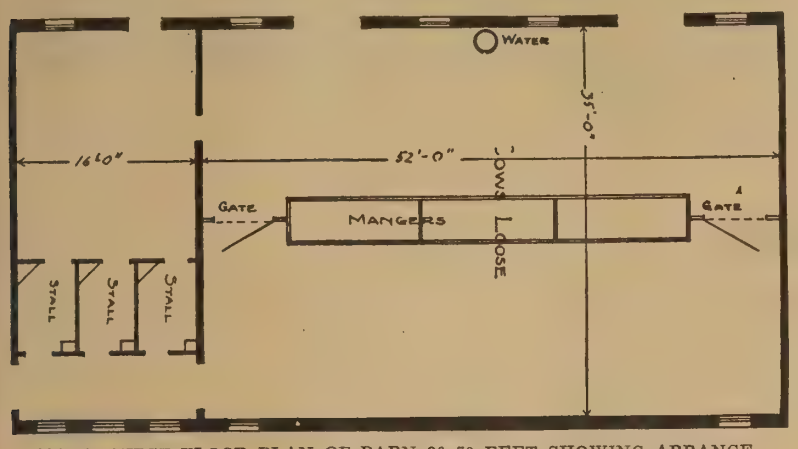
An investigation was made as to the feasibility of the plan of allowing cows to run loose in a shed or covered barnyard. Seventeen men were visited who were practicing this method of housing their cows. These observations, in addition to 12 years' experience in allowing cows to run loose at the University of Illinois, bring out the following facts in regard to housing cows in this manner:

1. The cows can more easily be provided with an abundance of fresh air, thus keeping them vigorous and healthy.
2. They are more comfortable.
3. They keep cleaner than when confined to stalls.
4. The fertility in manure is saved more completely.
5. Labor is saved in cleaning stables.
6. Saving in barn equipment and building cost. It does, however, require about one-fourth more floor space per cow, and more bedding.

Men who are housing their cows in this manner say that with good, profitable cows the advantages greatly outweigh the disadvantages.

Need Sixty-five Square Feet Per Cow

If the cows are large, in order that this plan be most successful, there should be at least 65 square feet available per cow, exclusive of the manger. Small cows will do well with somewhat less room. I know one case where a man had only 33 square feet per cow, yet he pronounced this method a decided success. Several men had only 50 square feet per cow.



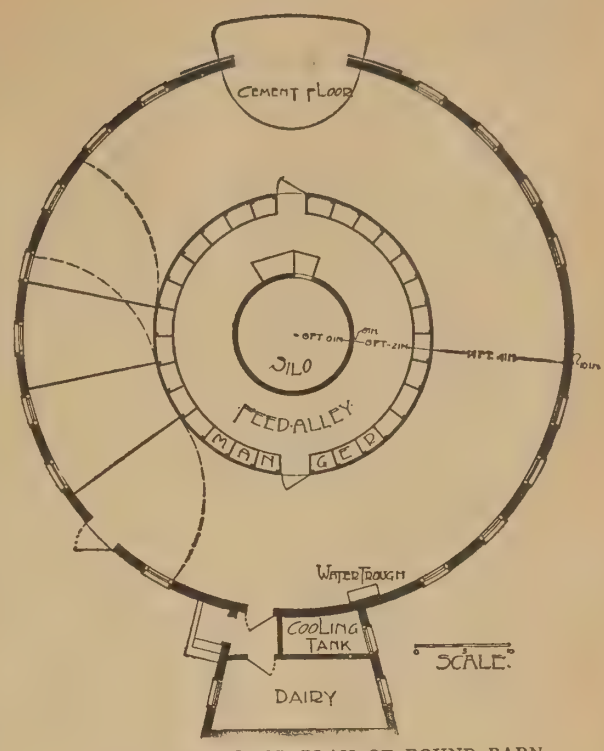
NO. 1. FIRST FLOOR PLAN OF BARN 36x70 FEET SHOWING ARRANGEMENT FOR COWS TO RUN LOOSE AND MILKING STALLS

There are several satisfactory and economical methods of arranging barns and sheds so that cows may run loose in them, and the best plan will depend upon the size of the herd, buildings available, cost of building material, and climate. Four different arrangements, which have proved satisfactory on farms where they have been tried, are shown.

Milks Thirty-three Cows in Three Stalls

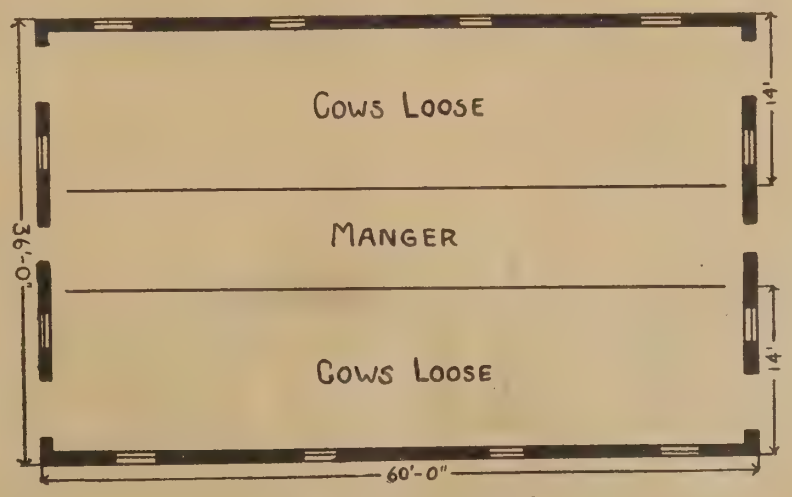
The barn plan shown in Cut. No. 1 has been used by one man in Northern Illinois for 22 years, and he is well pleased with his results. The cows are permitted to run loose in the large space 35 by 52 feet. A manger running lengthwise extends to within eight feet of the wall at each end. These spaces between the manger and the wall are closed by gates. At milking time all of the cows are driven to the side of the manger on which the water tank is located, and the gates are closed. The door of the milking room is then opened and the boss cows are always ready to enter. Near the end of this room are three stalls in which the milking is done. The cows eat their grain while being milked and pass out through the gates at the front of the stalls and into the other side of the barn. As the manger and gates divide the shed, the cows that have been milked remain on one side and cannot come to the milking stalls a second time.

The roughage is fed from the large manger in the center. This manger is raised as the manure accumulates so that it is always at a convenient height for the cows. In this herd of 33 cows, not a soiled cow was to be seen.



NO. 4. FIRST FLOOR PLAN OF ROUND BARN 60 FEET IN DIAMETER

This affords 2,200 square feet, or 80 square feet per cow for the 28 cows kept. Gates hinged to the wall are swung to the mangers when box stalls are needed. It was this barn that housed the cattle in Professor Fraser's "Most Milk Per Acre" demonstration.



NO. 2. BARN 36 BY 60 FEET

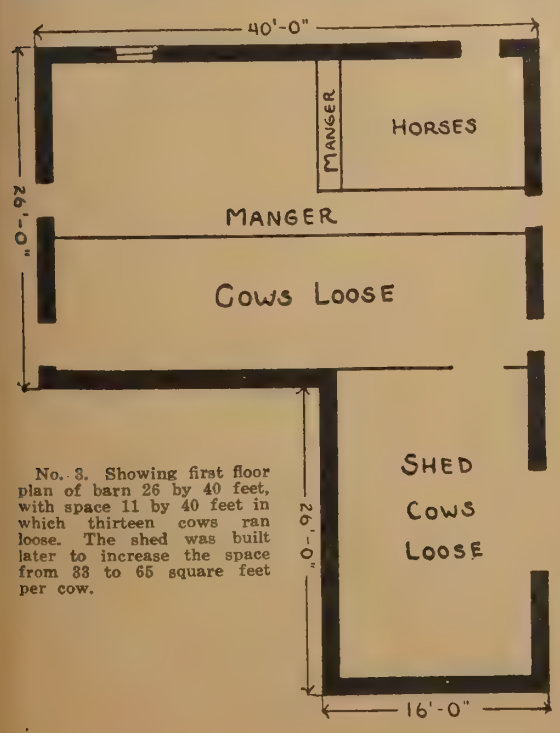
The cows are placed in rigid stanchions for feeding and milking, being allowed to run loose the remainder of the time.

Satisfactory and Economical

The barn plan shown in Cut No. 2 is in use in Clinton County, Illinois, and was designed by Farm Advisor Charles Rehling. It is 36 feet wide by 60 feet long, and the cows are headed in. The feed alley and mangers are eight feet wide from stanchion to stanchion, leaving a space on either side 14 by 60 feet, in which the cows run loose except at milking time, when they are put in the stanchions for an hour or two and fed grain. They are turned loose after milking and allowed to eat their roughage at will from the manger.

The cows are allowed three and one-half feet each in the stanchions, making room for 16 cows on a side and two passageways. When the barn is full, this arrangement allows 52 square feet per cow in which they can run loose. This space is hardly sufficient for large cows, but it can easily be increased to 70 square feet per cow by building a closed shed, 14

(Continued on page 683)



No. 3. Showing first floor plan of barn 26 by 40 feet, with space 11 by 40 feet in which thirteen cows ran loose. The shed was built later to increase the space from 33 to 65 square feet per cow.

Saves Flooring and Equipment

The advantage resulting from the saving of expense in barn equipment is of particular importance. The cows are in the stanchions only a short time night and morning, and cheap rigid stanchions are the most convenient and economical type to use for this purpose. There is also a decided saving in floor cost because, no matter what kind of a floor is laid, sufficient bedding must be used to absorb all of the liquids, and if this is done, a dirt floor is as good as cement.

A building already erected can be used with success, almost regardless of shape or construction. For this reason this method of housing the herd will permit a man to start in the dairy business when he has only a limited amount of capital to invest, and yet care for his cows in a most comfortable manner.



A CLEAN, CHEAP, AND COMFORTABLE WORK ROOM

A cow does her best when comfortably lying down and chewing her cud.

Club Boys Are Making a Cow County

C. E. GAPEN, MARYLAND

HARFORD is one of the most progressive agricultural counties in Maryland. It is one of the leading dairy areas of the state and a big factor in supplying the city of Baltimore with milk. But one of the most important things about it is that the interest being taken by farm boys in better methods and better live stock promises to make it a much better farming community in the future. When B. B. Derrick became county agent there a few years ago, he decided that he could do more good through club work than in any other way, and the results have shown that he was right. In recent years there has been a surprising growth in the number of "& Son" partnerships, and it is said there are now in the county more than 90 boys under 21 years of age who are worth $1,000 or more in farm holdings, live stock, and cash.

The county agent has established clubs of various kinds, including those devoted to corn, potatoes, pigs, tomatoes, and calves. The calf clubs, which are now of great importance, were not started at the beginning of this movement because it was thought better to get rid of tuberculosis first as a safeguard for the improved stock. They say now that holding off with the calf clubs helped to stimulate the campaign to eradicate the plague. About two years ago, after a high-pressure campaign in which all the herds were tested in a short period, the county was cleaned up and is now practically free, being listed as an accredited area.

The calf clubs started in January, 1921, when 37 calves were distributed, followed by an increase of 39 more calves the next year. In 1923 club members bought 51 heifer calves. One way these clubs have bettered farming in general in the county has been by repeating some of their programs before meetings of farmers at which the boys have given talks on feeding and management and crop growing. In this way the grown-ups keep in touch with what the youngsters are doing and most of them admit that they have learned something about improving their own methods.

Fitting their stock and showing at fairs has stimulated many farmers who never thought of it before to fit and show some of their animals. Now the dairy cattle exhibit at the county fair draws many visitors from a distance, and Harford County dairy cattle now compete at state, regional, and national shows.

After calf raising, dairy cattle judging came as a natural sequence. Club boys of other Maryland counties and from some 20 or more different states, and from England, have had opportunities to test the metal of these Harford County boys. About 25 boys took part in the first judging contest which was held on the farm of a local cattle breeder in 1920. This resulted in sending a team to the state fair and later in competition with other states. In 1922 the team which Harford County produced represented the state at the National Dairy Show and there won over all comers. This is the team that went abroad and defeated the English team.

County Agent Derrick says that if all this judging amounted to was the training of a few boys on the team it might not be justified, but, he says, practically all the club boys get the same training and they go home and apply their knowledge to the improvement of the herd. The effect on the quality of the herds in the county has been noticeable.

A brief sketch of what one of these club boys has done will serve as an illustration of what has occurred on many of these Harford farms. Roland Davis, now 20 years old, has recently become the junior member of



THE DAVIS FARM HOME IS AN ATTRACTIVE PLACE

a Jersey cattle breeding firm, Charles Davis & Son. Before the partnership was arranged young Davis had several head of pure-bred Jerseys and now the firm expects to have the entire herd of about forty head made up of pure-breds within two years.

Roland Davis started in club work in 1917 by growing a field of yellow dent corn. Three years later he dropped corn growing for calf club work, buying a Jersey heifer for $187.50, money which at first seemed to have been thrown away, for the heifer did not start off very well. But she came through all right. This heifer and another from the only pure-bred cow the elder Davis had in his herd, were the foundation of the herd which has grown to good size in a little more than three years. Part of the increase, of course, has been by purchase. Many prizes have been won at the county fair and at the state fair, some of them by the younger Davis in club classes and in open competition and some of them by the firm which has been showing since 1922.

The herd now consists of 32 head, 17 of them pure-breds, and it is far ahead of the general run of dairy cattle in the county and one of the very best in the Harford County Cow Testing Association. The average milk production of the herd is now nearly 8,000 pounds and the test averages about 5.3 per cent fat. The average milk production for the cows of Maryland is around 3,750 pounds, and for the cows in the association it is around 6,500 pounds. The Davis firm has 18 cows entered in the association, but records are kept on the entire herd. They believe that in addition to good stock the reasons for the high yield of their cattle are that they feed according to production and that they milk and care for the cows themselves.

There is one two-year-old in the herd with a record of 9,000 pounds milk and 460 pounds fat made on two milkings a day. A three-year-old now on test will make 11,000 pounds milk and about 620 pounds fat on two milkings a day. The first heifer bought by young Davis now, in spite of the poor start, has a record of 8,298 pounds milk and 469.2 pounds fat in 10 months as a four-year-old, the record being made in the cow testing association.

It is not difficult to imagine what is happening in a county where boys of the type of Roland Davis are taking hold of the problems of the dairy farms.



WHAT A BOY WITH A REAL LOVE OF CATTLE CAN ACCUMULATE IN A FEW SHORT YEARS. COUNTY AGENT DERRICK IS HELPING ROLAND DAVIS HOLD THE CATTLE

Vermont Plant Operators Meet

The annual meeting of the Vermont Dairy Plant Operators' and Managers' Association was held at Burlington, Vt., in connection with the short course conference for the dairy plant operators and managers offered by the Dairy Department of the University of Vermont.

This is the first time that ice cream manufacturers of the state have ever come together. Over 80% of them were present and sent tubs of ice cream to the scoring which was participated in by a greatly interested group of ice cream men. After this regular meeting a number of the ice cream men got together and took steps toward forming a state association or securing an ice cream section of the Dairy Plant Operators' and Managers' Association.

After the meeting the directors met and organized for the coming year with the following officers: President, J. M. Frayer; vice-president, F. H. Cochran; treasurer, E. C. Hillis; secretary, H. B. Ellenberger.

The directors' and auditor's reports showed the association to be in very flourishing condition, there being a respectable balance in the treasury and a considerable increase in membership during the past year.

The price reporting service conducted by the association is now receiving and distributing prices from one-third of all the dairy plants in the state. It is expected that this service will be considerably increased during the coming year.

After considerable discussion and explanation of conditions existing in the matter of stray cans and other dairy receptacles often used by others than their rightful owners, a committee was appointed to make recommendations and draw up an agreement to be entered into by various plants with the idea of eliminating a great deal of the loss and inconvenience now resulting from present conditions.

The following is a list of prize winners in the various contests conducted by the association: Best butter, 1st to H. W. Gillette, Richmond, Co-op. As'sn., Richmond, Vt., 2nd to A. R. White, White's Pure Milk Products, Burlington, Vt., 3rd to C. M. Story, Shelbourne Co-op. Cry., Shelbourne, Vt., 4th to E. C. Hillis, N. Montpelier Co-op. Cry., N. Montpelier, Vt.

Best Judge of Butter: 1st to E. C. Hillis, N. Montpelier, Vt., 2nd to C. M. Lilley, Marshfield, Vt., 3rd to T. J. Orne, Cabot, Vt.

Best Judge of Milk: 1st to I. J. Cootware, Grand Isle, Vt.; 2nd to H. W. Gillette, Richmond, Vt.; 3rd to R. H Newton, N. Ferrisburg, Vt.; 4th to O. M. Sherbino, Bethel, Vt.

The program for the meeting was excellent and there were many valuable discussions.

H. B. ELLENBERGER, Sec.

Why a Good Sire

"Nature is commanded by obeying her laws, and the most important of these laws is: "Like tends to produce like or the likeness of some ancestor." Whether it be for the creation of a productive herd or its maintenance the dairy farmer must depend to a very large extent upon the quality of the sires he uses.

It has been an axiom that "the sire is half the herd", and this is true if he is a good one. If he is a poor one he is very nearly all of it. Nothing will tear down a good herd so rapidly or so completely as a poor one. Good herds originate in good bulls and their maintenance depends upon a succession of good bulls."—Kansas Bulletin No. 167.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Iowa	Dubuque 3	Oct.	G. J.	66.2	W. Altchison
Wash.	Gr. Harbor	"	G. J.	72.6	J. Bilyen
Mass.	North C. Berkshire	"	R. J.	72.8	Highlawn Farm
Md.	Baltimore	"	R. H.	66.4	J. M. Dennis
Mont.	Bitter Root	"	R. H.	63.4	Ford & Hollister
Ind.	W. Hamilton	"	G. H.	71.2	H. Jessup
"	La Grange	"	G. H.	79.8	Fought & Son
"	La Grange	Sept.	R. J.	62.4	A. Gehrett
"	Clark-Scott	Oct.	G. J.	58.0	O. Erni
"	Van.-Warrick	"	G. J.	67.5	W. Neidig
Minn.	Cannon Val.	"	R. H.	67.7	F. L. Chellson
"	Pine Co. 1	"	G. H.	55.4	E. L. Crom
Md.	L. Montgomery	"	G. G.	60.4	J. H. Ruppert
Ohio	Carrol Co.	"	R. J.	60.6	L. Richardson
"	Licking	"	R. J.	67.6	F. Stevens
Wis.	Stratford	"	G. H.	61.5	Spindler Bros.
"	Clinton	"	G. H.	58.2	P. E. Offerdale
"	Ells.-Prescott	"	G. S.	48.6	J. J. Eling
"	Rock Elm	"	R. G.	61.1	Wild Bros.
"	Maid. Rock	"	G. H.	61.1	Kopp Bros.
"	West Bend	"	R. H.	60.2	Ziegler & Co.
"	Hol.-Morrison	"	G. G.	50.4	B. J. Kings
"	Fountain City	"	G. G.	54.5	S. Schaffner
"	Eau Claire	"	R. H.	53.9	L. Peck
"	Spr. Green	"	R. H.	62.0	Wittmer Bros.
Vt.	Windsor	"		69.1	E. H. Locke
Mich.	Ber.-Cass	"	H.	80.5	J. Cutaia
"	Charlevoix	"	G. H.	70.8	D. Swanson
"	Cass Co.	"	G. G.	60.1	R. Alldredge
"	N. Allegan	"	R. H.	67.5	G. Newell
"	E. Oceana	"	G. H.	53.5	W. Enderlee
"	Oscoda 1	"	Gr.	58.6	E. Handrich
"	N. Gratiot	"	G. H.	74.6	J. McJetton
"	Newaygo 1	"	R. H.	104.1	G. Meeuwenberg
"	Monroe	"	R. H.	51.3	G. Schroeder
"	Les.-Ingham	"	G. H.	65.7	G. Higdon
"	Hillsdale-Litch.	"	R. J.	78.1	J. M. Landis
"	N. Mecosta	"	G. J.	56.9	D. Hansen
"	Huron-Ubly	"	G. H.	62.6	C. Krug
"	So. Kent	"	R. H.	81.1	J. Wenger

Association Notes by Testers

Dubuque No. 3, Iowa: Five herds were tested for tuberculosis and four reactors found. It was the second test for all of them. The creamery paid 42c per lb. for fat in October.—A. P. Breitbach.

Northern-Central Berkshire, Mass.: Prospects for the dairy business are much better than formerly. In October market milk sold for $2.79 per cwt. and retailed for 13—14c per quart. The creamery paid 50—52c per lb. for fat. Butter sold for 58—60c per lb. —T. H. Weed.

Clark—Scott, Ind.: The grade herd of 13 cows of the Louisville Cement Company was high, with 784 lbs. milk, 39.4 lbs. fat. The 350 cows tested averaged 500 lbs. milk, 26.1 lbs. fat; feed cost, $4.81, profit, $8.21.—W. W. Barnett.

Pine Co. No. 1, Minn.: One old barn was remodeled and one silo was erected. Cows in this association are beginning to freshen, which brings the average higher than for the past two months. All separators were found to be skimming O. K.—A. Driver.

Pierce Co., Wis.: Three of the five associations in this county reported 952 cows tested and fifty 40-lb. cows. About one-third of the cows dry during October will freshen in November and December. Creameries paid 36—42c a lb. for fat. At the grade Guernsey and Holstein sale at Ellsworth, cows averaged about $80.—C. Engleman.

West Bend, Wis.: Of the 337 cows tested, 20 produced 40 lbs. fat and over. A general interest in feeding is promoted through this association. In October the condensery paid 50c per lb. for fat, the cheese factory 47c, the creamery 48c.—W. Hansen.

Eau Claire, Wis.: Drinking cups were installed in one member's dairy barn and a new, up to the minute milk house was built on another farm. Herds that were fed grain show quite a large increase over last month.—J. A. Peterson.

Berrien—Cass, Mich.: Besides having the highest cow in the association for October, Joe Cutaia's herd of ten cows also averaged the highest, 1038 lbs. milk, 39.7 lbs. fat. Four members added oil meal to their home grown feeds and increased their profits 25% over the cost of feed. They did this in spite of the fact that they spent from $12 to $15 more for grain this month than last. This association issues a monthly bulletin containing grain prices and a discussion on feeding and management of cattle. A list of 50-lb. cows is also published. Market milk sold for $2.25 per cwt. in October. The creamery paid 36—42c per lb. for fat. Milk retailed for 10—14c per quart, butter 45c per lb.—H. D. Boas.

Charlevoix Co., Mich.: Five barns were remodeled, all of which will have stanchions and cement floors, three will have water cups, and one a litter carrier. Three silos were built. In October the cheese factory paid $1.54 per cwt. for milk. Milk retailed for 12c per quart.—C. Mullett.

North Allegan, Mich.: The average of the 206 cows tested and 76 dry during October was 560 lbs. milk, 20.89 lbs. fat. Wm. Slotman's herd of Holsteins was high with an average of 1190.3 lbs. milk, 39.53 lbs. fat. Twenty-one cows made between 40 and 50 lbs. fat and 10 cows made over 50 lbs. fat; 22 cows produced over 1,200 lbs. milk. One herd was tuberculin tested and one reactor found.—C. L. Fleming.

Oscoda No. 1, Mich.: Twenty-five members are keeping daily milk records. Two barns were remodeled. The creamery paid 37c per lb. for fat in October.—W. V. Pangborn.

North Gratiot, Mich.: The 239 cows tested in October averaged 21.6 lbs. fat. Seventeen cows produced above 40 lbs. and six above 50 lbs. fat. Twenty-three separators were tested. In October the condensery paid $1.50 per cwt. for milk. The creamery paid 40c per lb. for fat. Milk retailed for 12c per quart.—C. H. Blivin.

Newaygo, Mich.: This association boasts of being the oldest association in the United States. It is having a successful year. Two cows have already finished good records. One, a grade Jersey, 17 years old, owned by Henry Pekel, produced 620 lbs. fat in a year. Another, a pure-bred Holstein, owned by Garret Meevwenberg, produced 624.2 lbs. fat in 12 months. Henry Meevwenberg and son, Garret, have five Holsteins that averaged 562.2 lbs. fat. The creamery paid 39c per lb. for fat. Market milk sold for $2.50 per cwt, and retailed for 12c per quart in October.—M. A. Johnson.

Monroe Co., Mich.: A large number of members attended a dairy meeting held in East Lansing. A dairy meeting is planned for December 3rd. J. Hayes from East Lansing is engaged as speaker. In October market milk sold for $3.00 per cwt. and retailed for 10c per quart. The creamery paid 44c per lb. for fat.—L. A. Dexter.

Hillsdale—Litchfield, Mich.: A Jersey bull association was formed and is composed of eight members. In October market milk sold for $1.60 per cwt. The creamery paid 37—43c per lb. for fat.—P. H. Sutton.

North Mecosta, Mich.: Herds that received grain for the first five months, June to October inclusive, averaged $1.80 more per cow above cost of feed than the average for the association for the same months. Two separators were repaired and a new one replaced one that had been losing its owners $2.00 to $3.00 per month. Market milk sold for $2.50 per cwt. and retailed for 10c per quart in October.—R. Jales.

Licking Co., Ohio: Of the 230 cows tested in October, 2 produced above 60 lbs. fat, 13 above 50 lbs., 35 above 40 lbs., and 34 above 1,000 lbs milk. One barn was remodeled to pass state inspection. Commercial feeds are being used largely, due to shortage of the corn crop. Market milk sold for $2.45 and retailed at 12c per quart. The creamery paid 38c per lb. for fat in October.—J. O. Froelich.

Huron—Ubly, Mich.: Silos are all filled and beans about threshed. Pastures were very poor in October and the majority of silos were opened. Chris Krug had high herd with 15 Holsteins which averaged 37 lbs. fat, 1,034 lbs. milk. Two members disinfected their barns. Market milk on the farm brought $1.60 per cwt. The condensery paid $1.60 per cwt. The condensery at Ubly paid 2c above Chicago standard for fat and 30c per cwt. for milk.—C. M. Wagner.

Year's Report of the Traverse—Antrim Association

This Michigan association finished its year's work with Clarence Selkirk having the high cow, a grade Holstein, which produced 10,014 lbs. milk, 510.3 lbs. fat. Mr. Selkirk also has the high herd average. His mixed herd produced 7,562 lbs. milk, 387.7 lbs. fat. Thirty-one herds were tested for tuberculosis and one herd was retested. Most all members use pure-bred sires. One bull association was formed. All members raise alfalfa; twenty-nine have silos. The average production for the 306 cows tested during the year was 5,939 lbs. milk, 295.6 lbs. fat; average feed cost, $67.35.

Ten cows produced 400 lbs. fat or more; 17, 365 lbs. fat or more; 52, 300 lbs. fat or more. Fourteen herds averaged 300 lbs. fat or more. Six members keep milk records and 15 feed grain the year round. One member has a milking machine. Four new separators were installed and all separators were tested. Twenty-two farmers had their soil tested and found it needed lime. Two carloads of lime were applied. Eighteen members signed to continue the association another year.—R. Kaiser.

Idaho Association Completes Eighth Year

The Pioneer Cow Testing Association of Twin Falls County, Idaho, completed its eighth successful year with 296 cows with an average production of 319.3 pounds fat and 7,767.6 pounds milk and a profit per cow over cost of feed of $95.28.

Beauty, the grade Holstein cow owned by L. J. Tenckinck, is high cow for the third year in succession. This year she produced 673.4 pounds fat and 17,745.2 pounds milk.

The high herd for the year is also owned by Mr. Tenckinck with an average production of 11,478 pounds milk and 389.7 pounds fat for his herd of 26 Holsteins and Jerseys.

A. H. Koester, Tester.

A Minnesota Report

The Askov, Minn., Cow Testing Association finished is first year's work with an average production of 6,987.6 lbs. milk and 270.88 lbs. butterfat, at an average feed cost of $49.01 per cow. The cost of producing 100 lbs. milk for the year was 70.2 cents and for 1 lb. fat 18.1 cents.

High cow for the year, a grade Holstein, produced 14,482 lbs. milk, 493.5 lbs. fat at a feed cost of $70.34, leaving a profit over cost of feed of $181.91.

Of the 441 cows finishing the year, 153 produced above 300 lbs. fat; 16 out of the 54 herds tested produced over 300 lbs. fat.

Thorvald Andersen, Tester.

Nothing great was ever achieved without enthusiasm.—Ralph Waldo Emerson.

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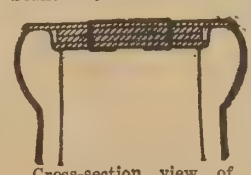
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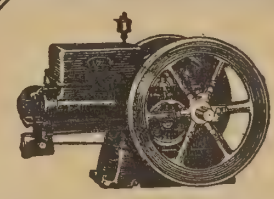


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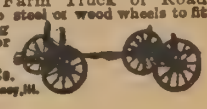
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Coming Events

Jan. 8, 1925—The Massachusetts Dairymen's Association holds its annual meeting in connection with the Union Agricultural meeting in the Massachusetts Armory, Worcester, Mass.

Another 1000-lb. Holstein

The number of Holstein cows that have produced 1,000 lbs. of butterfat in 365 days is constantly increasing. One of the most recent such records to be reported by the Superintendent of Advanced Registry is Dutchland Aaggie Olive, bred and owned by the F. F. Field Holstein Trustees, Massachusetts. In one year this 8-year-old cow produced 32,106.6 lbs. of milk, 1057.19 lbs. butterfat (1,321.48 lbs. of butter.)

"No one can build a fence around an idea once it has been expressed."
—W. O. THOMPSON.

New York Cows and Comments

H. H. LYON, NEW YORK

ON a little trip recently I noticed a number of herds of cows out in pasture well along in November. The thing that impressed me was the rather low condition of many of these cows. Then in talking with many farmers I find, what has been noticed before, that dairymen are buying and feeding but little grain generally. Poor feeding and poor condition result in low production. Thus we have accounted for the statement of a city man closely connected with milk dealers that there is no surplus of milk at the present time. This in turn accounts for the League's fluid price of $3.07 for November and December, which is so far above the so-called manufactured prices.

There is some difference of opinion as to the advisability of leaving off so much grain, but many dairymen are explaining how it took them all summer to pay up feed bills and some say that they haven't been able to do that yet. Feeds are high here and the pool price for October was considerably under two dollars. It doesn't look now as though this month could reach a point very much above two dollars in cash. A good feed costs $2.50 or more a hundred in most cases. If milk advances (one dealer predicts four dollars, but I don't) I suppose dairymen will go to feeding and buying more cows, and so badly demoralize the market again. We better all look out a little and keep an even tenor.

Only a few days ago I was talking with a prominent farmer of the state and he told me that he is very doubtful about the wisdom of advancing the fluid price so far. He had in mind that too high a price encouraged outside milk entering. Then a letter from a well informed observer expressed the opinion that a large share of the League's troubles has been due to the attempts to obtain a high fluid price. It encourages non-pool dealers to make a wider margin between their price and the pool price and thus draw poolers away. At the same time it makes it possible for them to buy at a wider margin under the League's fluid price and so make more money.

It has seemed to me that only a reasonable advance over butter is all that we can hope for from a fluid price and that such an advance cannot be much beyond fifty to seventy-five cents except perhaps for brief intervals like the present. My friend to whom I first referred gave about $1.40 as the butter price, but without counting the skimmilk it would seem doubtful if that much can be secured from butter in three per cent milk.

While speaking of the fluid price I want to quote from an up-state milk dealer. He is very closely in touch with the city dealers. He tells me that dealers have urged the League to advance the fluid price the greater portion of the time. When the League cut the fluid price last year, he says it was not due to any wish on the part of the city dealers and he asserted that it didn't result in any benefit to the League. Dealers, it is said, do not care how much they pay for milk if their competitors pay the same. This fluid price is a decidedly complicated matter. A high class one price does tend to pull the pool price upward if it does not cost the League any sales. It is necessary at the same time to figure on the later results to the association from a class one price far above the butter price of milk.

Who can say what the relationship should be? Non-poolers who sell direct to a class one dealer with little or no surplus are all anxious for the League to make them a higher price. The League must of course consult its own welfare and the final results to the industry.

The cost of feed and the price of milk have the effect of fixing the price of cows. Many cows have been sold at ridiculously low prices. There appears right at this moment a sentiment for keeping fewer cows and for raising a smaller number of heifer calves. At the same time the men who have gone out to buy cows, particularly if they insisted on getting good ones, have found them generally difficult to select and pretty high priced when found.

Fewer cows and better ones should undoubtedly be the aim of the average dairyman in New York territory. The message as thus stated is being repeated so often that I am really commencing to believe that something worth while may come from it. On the other hand, we may as well watch out for the man who says that if others are going to reduce their herds it may be a good time for him to increase. We have such and some of us fear them.

I have frequently mentioned the cabbage crop on our dairy farms as being a good one to grow. There is an abundance of cabbage this year. I have heard of its price being as low as three dollars a ton, but six to eight dollars has been more usual. With the extra labor of trimming and of hauling to market, this price does not appeal to many of our dairymen, although the two stations beyond us have already shipped fully fifty cars.

A couple of weeks ago we had some zero weather and a majority of the farmers had cabbage in the field. Cabbages quite generally are frozen or were. Farmers stopped feeding and in all cases the milk production fell off. They have resumed feeding now and the milk flow is resuming somewhere near the former quantity. It was not all in the cabbage, but cabbage seems to be excellent for production while it lasts.

I said when writing the first paragraph of this story that I do not look for a League price in November very much above two dollars. I have learned today that about all the dealers in these parts are complaining that they are short of milk. It is also reported that the League is shipping milk from condenseries and other plants in a large number of cases. It may be that the reports are somewhat exaggerated, yet it is very evident that the lower feeding and the general attitude of dairymen who feel that milk production is not now profitable is having a very decided effect on present production.

A New World's Champion

A new world's champion cow for both milk and butter production in ten consecutive months is Grahamholm Colantha Segis Maid, a six-year-old pure-bred Holstein-Friesian, owned by Dr. Christopher Graham, of Minnesota. Her record, as announced by the Advanced Registry Department of the Holstein-Friesian Association of America, is 32,155.1 pounds milk and 974.43 pounds butterfat—equal to 1,218 pounds butter. She qualified for this record by dropping a bull calf a little over 12 months after freshening at the beginning of the test. Her 305-day record was increased to 33,811.6 pounds milk and 1,033.28 pounds butterfat in 344 days, thereby giving this cow the distinction of being one of the few cows of any breed to produce over 1,000 pounds butterfat and 30,000 pounds milk in one year. The new ten months' record established displaces that made last year by Adirondac Wietske Dairy Maid, the famous California Holstein matron.

Previous to this, Grahamholm Segis Maid produced in one year as a 5-year-old 33,112.3 lbs. milk containing 984.84 lbs. fat, (1231.06 lbs. butter), which makes her the second cow in the world to twice produce over 33,000 lbs. milk in a year. From June 16, 1923, to November 24, 1924, 2 years, 5 months, and 9 days, which period includes three freshenings, this extraordinary cow produced 66,923.9 lbs. of milk and 2,017.76 lbs. fat, figures that put her in a class by herself.

Grahamholm Colantha Segis Maid is another example of the close correlation between production and type. She is a half sister of the world's champion senior four-year-old cow for one year's production of milk and butter, Grahamholm Colantha Pauline Segis, both having been sired by Dutchland Creamelle Colantha Lad who won first prize in his class at the 1921 National Dairy Show. Her dam, Pauline Segis Johanna Grahamholm, won first at the 1919 Waterloo Dairy Cattle Congress and second at the National Dairy Show that year as a four-year-old.

Home-grown feeds constituted most of this cow's ration. Alfalfa hay, corn silage, mangels, and some cut green corn made up the roughage and succulence. Her grain ration consisted of ground oats, barley, corn, bran, cottonseed meal, linseed oil meal, and a little gluten, hominy, and distillers grains for variety with beet pulp and molasses to give it bulk.—Extension Dept. Holstein-Friesian Ass'n of America.



GRAHAMHOLM COLANTHA SEGIS MAID WITH A RECORD OF 32,155.1 LBS. MILK, 974.43 LBS. FAT IN TEN MONTHS
OWNED BY DR. CHRISTOPHER GRAHAM, MINNESOTA

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Child Labor Amendment

HOARD'S DAIRYMAN:—What do you think of this proposed child labor amendment to the constitution? If the proposition is to prohibit or regulate the working of farm children until they are 18 years of age I am against it.

I am not much given to writing down my views but if this proposed amendment, so much talked about now, aims to keep boys and girls from working until they are 18 years old the proposition ought to be everlastingly defeated.

It seems to me that if parents would do everything they could to teach boys and girls to do an honest day's work for an honest day's pay and to save a little each day, there would be fewer folks trying to get something for nothing. There is enough of this as it is.

Perhaps those who seek the passage of this bill will later on expect the government to take care of those who have not learned how to work.

I believe in protecting children so that each child may have a fair chance to become the most useful citizen possible. But I also believe that the learning how to work is a very important part of the educational process.

There may be occasional isolated cases where the proper education of children is hindered because of enforced labor but I believe that these cases can better be taken care of by the several states separately.

Are the majority of parents in favor of this amendment or is some one else pushing it?

Iowa. H. P. H.

High Farm Taxes

HOARD'S DAIRYMAN: — Election is over and the state legislature will soon meet. Tax reduction has been promised farmers and industry fears it will get it in the neck. I am on both sides of the fence, and am pretty certain to get it either coming or going. I confess I am not a tax expert, but I present my case and ask "brickbatters" to solve the riddle.

I live in Wisconsin where we have all kinds of taxes—real estate, personal property, income, and corporation taxes, to say nothing of numerous forms or license taxes from dog and barber licenses all through almost every class of business and profession. I own a farm that my partner operates on shares, while I am employed by an industrial concern. My farm taxes are $250 on a $22,000 valuation 120 acres of farm real estate and personal property, the taxes on my residence are $140 on a $4,500 valuation, my state income tax is $40, and I have an automobile license fee of $16. Besides this, I have a small federal tax and I presume I indirectly pay my share of the railroad, insurance, and other corporation and license taxes.

I feel I am well taxed, but possibly I pay no more than my share. However, I do feel that I am overtaxed as a farmer as compared with myself as a salaried city man. I pay 40% more tax as a farmer than I do as a city man, even including my city residence tax. This is despite the fact that as a farmer I would be happy to credit my farm as a 5% investment that would yield about one-sixth of my total income. In other words, on one-sixth of my income I pay 40 per cent more in taxes than I do on all the other five-sixths of my income. If my taxes were all based on income at the rate I now pay on my farm real estate, the city portion of my income would pay a tax of $1,250.

This is a decided injustice to me as a farmer—and to all farmers. The first thought is that I would base all taxes according to income. Yet some of our nearby states do not have income taxes, and if we in Wisconsin shift a heavier burden on our manufacturers, my concern and others will move out of Wisconsin that they may save money, if not their very existence. Should they go, as a farmer I will have to pay their taxes as well as my own; besides which I will lose a goodly portion of my home market.

So I go on like a squirrel in a cage, making a lot of motion and getting nowhere. What is the solution? Oliver McKnight and Ed Nordman say single tax on land. But they have few supporters and I already complain of too high real estate taxes. I don't see any way of shifting my tax on real estate without hurting myself. I sometimes think that if our legislature would stop all tax legislation and our public officials look out for expenditures, it would be the farmer's best relief. That seems to be the maxim of President Coolidge.

I expect some relief in one of the big items in my tax when legislation covering taxation for highway purposes is perfected. I think it needs to go further than a gasoline tax, but that will help some in making the users of a road responsible for its upkeep.

I believe we need greater stability in and a closed season for tax legislation, then perhaps farm products prices will adjust themselves so that this real estate tax will be paid by the consumer like I pay the railroad tax when I ship freight. I rather like and believe in the slogan, "Lower taxes for all, and higher taxes for none."

Wisconsin. JOHN MUNGER.

Government Aid

HOARD'S DAIRYMAN:—Jack Bradley of Minnesota certainly hit the nail on the head in his O. B. & B. article, November 14. Incidentally Bradley shows that he has been doing a lot of thinking about government aid and price fixing and he shows that he has gained enough courage to express an opinion on a much discussed problem even though that opinion runs contrary to present popular sentiment.

Government aid and price fixing to help the farmer furnish fine materials out of which politicians propose to build nice looking platforms. If the government undertakes to assume too much of the responsibility of improving agriculture it seems to me it must also limit the extent to which this might go.

I believe with Mr. Bradley that it is the function of government to assist in making equal opportunity for all and that there should be special privileges for none. The old working tools of common honesty, thrift, industry, and intelligent application of organized common sense to one's personal business are still pretty good implements of success.

Let's have a little more study of the real fundamental functions of government. Let's have each man applying all of his talents as hard as he can to the problems in his own business that he alone is responsible for and that he alone can successfully solve if he will.

Iowa. C. G. J.



Lead gives to chinaware its beauty and lustre

GLAZED china is nothing more than clay shaped in various forms and covered with a thin skin of glaze. It is this thin coating that transforms the rough, porous clay body into a beautiful, smooth, lustrous china plate or cup or saucer. And in making this glaze, lead has always been one of the most essential ingredients.

Any one of the three lead products — white-lead, red-lead, or litharge—can be used in making lead glazes. Makers of fine chinaware will use as much as 80,000 pounds of white-lead a year and only 1,000 pounds of red-lead. Others in the industry use large quantities of red-lead. They will reverse the above figures and use 80 times as much red-lead as white-lead.

Where most lead is used

Although lead in pottery is constantly serving and helping to beautify your home, the tonnage of lead used in this way is not so great as that used in paint. Everywhere you go you see *white-lead paint* protecting houses from the attacks of weather.

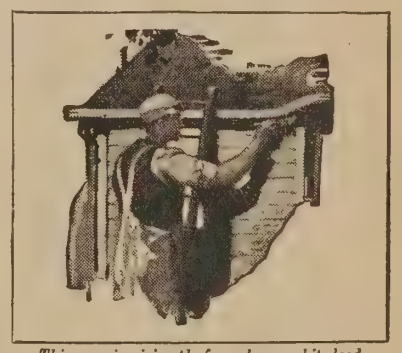
There is no finer paint than pure white-lead and linseed oil for protecting exterior wooden surfaces from rot and decay. And nowhere is such protection so needed as on farm buildings. Exposed to the full sweep of wind and storm, all houses, barns, and other wooden structures should have adequate coverings of white-lead paint.

In these days when building costs are so high, the far-seeing farmer protects with white-lead paint the money he has invested in his property. In other words, he believes in the slogan, "Save the surface and you save all."

Ask any experienced painter what you should do to save your property from the attacks of the weather. He will tell you to keep it covered with white-lead paint. He and his fellow craftsmen have used it for generations. Painters know its qualities and have confidence in it.

Red-lead for metal surfaces

Red-lead paint is to iron and steel surfaces what white-lead is to wood. It prevents rust and rust is just as sure to destroy your unpainted machinery, your tools as rot is to destroy your unpainted house or barn. Save wooden surfaces with white-lead paint, and the metal with red-lead.



This man is giving the farm house white-lead protection against the attacks of the weather.

A hundred pages of paint facts

If you want to know how to save the surface of wood, masonry or metal on your farm with paint, write for our "Handy Book on Painting." This book is filled with essential paint facts and formulas and will be sent free at your request.

Dutch Boy white-lead and Dutch Boy red-lead are the names of the pure white-lead and red-lead made and sold by National Lead Company. On every keg of these products is reproduced the picture of the Dutch Boy Painter shown below. This trade-mark guarantees a product of the highest quality.

National Lead Company also makes lead products for practically every purpose to which lead can be put in art, industry, and daily life. If you want information regarding any particular use of lead, write to us.



NATIONAL LEAD COMPANY

New York, 111 Broadway; Boston, 131 State Street; Buffalo, 116 Oak Street; Chicago, 900 West 18th Street; Cincinnati, 659 Freeman Avenue; Cleveland, 820 West Superior Avenue; St. Louis, 722 Chestnut Street; San Francisco, 485 California Street; Pittsburgh, National Lead & Oil Co. of Penna., 316 Fourth Avenue; Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut Street

"Save the surface and you save all"

EDITORIAL COMMENT



FIVE-YEAR T. B. PROGRAM

The Wisconsin Department of Agriculture announces that at a meeting of the Wisconsin Live Stock Sanitary Board the question of a future bovine tuberculosis eradication program was carefully considered. Hon. John D. Jones, Jr., made the following recommendations to the Board:

"First: that a five-year program be recommended.

"Second: that a sum of $750,000 be requested from the legislature for each year of the five-year period. It is also recommended that the commissioner be given larger discretion in the use of the funds appropriated for eradication of tuberculosis. It is suggested, however, that no more than $300,000 of the moneys available in any one year be paid for indemnities incidental to the testing done by local veterinarians."

In other words, the larger proportion of the appropriation will be devoted to area work which is making such splendid progress in Wisconsin. We look upon the recommendations of the Commissioner of Agriculture as being conservative and wise. We are confident that under his capable leadership this amount of money can be used economically and we would not hesitate to approve of even a larger appropriation, feeling that it would be to the advantage of the live stock industry of Wisconsin if a million were spent each year for the next five years. Unfortunately many of the live stock breeders do not recognize that the eradication of bovine tuberculosis from the state is of large financial value to them; that the legislature through adequate appropriations for cleaning up tuberculosis among the herds and flocks of Wisconsin is making a splendid investment for agriculture and for all business in the state.

AN AGRICULTURAL PROGRAM

Not all leaders of agricultural affairs are straining after the impossible or indulging in high sounding statements for the purpose of gaining approval and applause from the farmer. L. J. Taber, master of the National Grange, in his annual address shows himself to be a real leader and that he has a clear understanding of what constitutes a sound and sensible course for the farmer to pursue that his industry be placed upon a business basis. Mr. Taber, in part, said:

"The farmer's problems are economic and not political. Their cure will come through adherence to sound business principles and not through legislation. We have cold contempt for the army of politicians who belittle the intelligence of the farmer by insisting that his prosperity is dependent on their support. * * * * * We must recognize, however, that the major steps toward the solution of the farmer's problems must be worked out here in America, independent of conditions in foreign lands. The development of better market methods, the recognition that orderly production is the first step in orderly marketing, and a reduction of the cost of government, might be mentioned as our cardinal problems. * * * Co-operative marketing is not a magic wand that can perform miracles. Neither is it a skeleton key to unlock hidden profits, but co-operative marketing or some system of marketing that gives to the producers of the nation's food supply a larger voice in determining the conditions under which it reaches the consumer, is essential. Co-operative marketing can only be justified when it makes for efficiency and eliminates waste. * * * It is useless to criticise any of the agencies that we have now developed or the machinery used in food transportation and distribution, until the farmer through his co-operative machinery, or by other methods, has developed more economical and more efficient agencies. The waste and lost motion in the unnecessary number of purchases, in the transportation of inferior products, in the frequent reshipments, in over-crowded markets, etc., can more largely be eliminated by sound co-operative machinery than through competitive and speculative agencies. * * * Co-operative organizations built from the ground up, with the best management obtainable, with sufficient finances to carry forward their work, with as little governmental regulation as is possible, would seem to be the ideal toward which we should strive.

"More important than co-operative marketing is what might be termed co-operative production, or production guided by intelligence and information. The nation must clearly understand that it profits no one and injures agriculture to produce that which the market cannot absorb and does not desire. The American farmer is the greatest food producer in the world. His efficiency is demonstrated by the fact that he is producing today twelve times as much food per man as was produced in 1824. This marvelous increase demonstrates that greater production is not our first problem. * * * Agriculture must develop the machinery by utilizing governmental agencies and the development of his own organizations to a point where world information concerning production, marketing conditions, and probable consumption demands can be collected, tabulated, and interpreted, so that the tiller of the soil will have some intelligent and workable information directing his production program."

NATIONAL MILK PRODUCERS

The eighth annual meeting of the National Co-operative Milk Producers' Federation, according to its secretary, Charles W. Holman, was one of the most successful in the history of the Federation. In our issues of November 21st and December 5th we have given excerpts from several of the papers presented at that meeting. The various subjects discussed at the annual meeting of this association seem to us appropriate and that they related useful experiences and offered sound advice. They clearly showed that substantial advancement is being made in marketing milk and that the men in charge of the development of the various milk producers' associations have a very clear and definite understanding of the right course to pursue.

It has occurred to us, however, that these men omitted one very important factor from their program and that is, economical milk production. We know from experience that a number of the associations represented at this Federation meeting have had an oversupply of market milk and that it has come from unprofitable cows—cows that did not pay for feed consumed. It is a well settled principle that successful co-operative marketing begins with efficient production. It is just a little difficult to understand why one of the most important factors in successful dairying has been neglected by this organization. Co-operation alone will not save the dairy farmer or make his business profitable. He must be efficient in his work and this means, on the whole, better cows and a better system of feeding and handling them.

Some months ago we took delight in complimenting the Cincinnati Milk Producers' Association because it directed itself to assisting its members to form cow testing associations. The officers of this association comprehend the drag of the poor cow on successful co-operative effort.

We trust that at the next annual meeting of the National Co-operative Milk Producers' Federation, at least one session will be devoted to ways and means of eliminating the surplus cow.

PURE-BREDS—COW TESTING

Breeders of pure-bred dairy cattle could render no greater service to themselves and to the dairy industry than to belong to a cow testing association. The leading breeders of pure-bred dairy cattle are giving more attention to records at the present time than at any period in the past. Those with full understanding of the needs of the dairy farmer know that there is a greater demand for cows capable of doing a good year's work than there was a few years back. The cow testing association has established itself favorably in the minds of the dairy farmers and they are looking for cows that have made good yearly records.

Many cases have come to our notice the past year in which grade cows from herds in cow testing associations have sold for more money than pure-breds from untested herds. A situation of this kind should not exist or be permitted to continue indefinitely. The grade dairy cow, which is so popular at the present time and especially if she has made a good year's record, owes her outstanding qualities to pure-bred animals.

The breeders of pure-bred cattle, however, have not selected their animals as closely as they should and as a result many find themselves unable to sell their pure-breds at prices equal to good grades. What should the pure-bred breeder do in such a case as this? It is our suggestion that he join a cow testing association and eliminate all cows unable to produce at least 300 lbs. of fat in a year. There are too many pure-bred animals below the 300-lb. fat mark. What excuse has a man who breeds dairy cattle if he does not produce improved blood.

It is a well known fact that some breeders of dairy cattle will not join a cow testing association, for if buyers come to purchase an animal from them they desire to see the records and very often the records are so low that it would injure their sale. This is an extremely unfortunate position for a pure-bred breeder.

It may be added here that we consider the present a splendid and opportune time for anyone who desires to enter the breeding of pure-bred cattle, for they are selling at bargain prices. If a man is a good judge of dairy talent, has given some attention to the breeding of dairy animals, he can, with comparatively little money, purchase the foundation for a good pure-bred herd. Now is the time to do it. It is also the time for pure-bred breeders to take steps to eliminate their low producing cows, for they are the ones that depress the prices of pure-bred animals. It will take some courage on the part of some breeders to do this, but the sooner they meet the condition and get their stables filled with creditable pure-bred animals, the sooner they will be in position to make a profit from their herds.

Skimmilk Powder for Calves

Could you inform me as to the relative value of powdered skimmilk compared with the natural skimmilk for the feeding of dairy calves? What would be the cost per pound of the skimmilk powder and what proportion of water should be used in diluting?

Genoa Junction, Wis. G. E. V.

Powdered skimmilk has the same value as ordinary skimmilk in feeding calves when one part of skimmilk powder is mixed with 9 parts water. It is fed just as skimmilk is fed. While the skimmilk powder may be mixed with cold water, it is recommended as a better practice to first sift the powder so as to overcome any lumpy condition and then mix this to a thin paste with a little cold water. Water heated to about 100 degrees is then added in sufficient amount to make the mixture at the rate of one pound skimmilk powder and nine pounds water. It is customary to feed the calves on whole milk from 2 to 3 weeks and then gradually change to the remade skimmilk.

Skimmilk powder is now quoted at from 6 to 10 cents a pound in bulk, which makes it relatively expensive.

Professor Eckles at the Minnesota Station found that he could get good results by feeding whole milk for 10 days to 2 weeks and then replace the whole milk gradually with skimmilk remade from the powder form. The remade skimmilk was fed until the calves were 63 days old and then was gradually withdrawn and all taken away in the succeeding days. Previously the calves had become accustomed to a grain mixture consisting of 4 parts ground corn, 1 part bran, and 1 part oil meal, while good alfalfa hay was kept in front of the calves constantly. Under this system of feeding the calves consumed, to 6

months of age: 148 lbs. whole milk, 71 lbs. powdered skimmilk, 425 lbs. grain, and 440 lbs. alfalfa hay. The calves were allowed all the grain they would clean up, except that they were not permitted to have more than 5 lbs. a day. Where they were allowed more than 5 lbs. they failed to consume all the hay they should for the cheapest gains. At the end of 6 months they were not quite as fully developed as calves that were fed skimmilk during the entire 6 months, but at the end of 8 months they were of normal weight and size.

Silage Molds at Top

We are feeding twenty-six head of Holstein dairy cows thirty pounds of ensilage a day. Twice a week the moldy ensilage has to be taken out. The dimensions of our silo are 18x36. While filling the silo the silage was packed well and some water added.

Mt. Pleasant, Mich. O. P.

We anticipate that the trouble with moldy silage is due to the fact that too small an amount is taken off each day. It is generally recommended that even in medium cold weather there should be from one and a half to two inches taken off daily from the surface of the silo to keep the silage from spoiling. In removing one inch from the surface of a silo eighteen feet in diameter, there is taken out approximately 700 pounds of silage. As only slightly more than this is being fed, it would appear that during warm weather there is almost certain to be some mold.

There have been suggested a number of methods of overcoming the difficulty of feeding from a silo of too large diameter for the number of cows being fed. A few years ago we had reports from two Michigan breeders that they had found the following method highly satisfactory: A band of iron is covered with canvas in such form as to fit the inside of the silo, the canvas being treated to make it air-tight. This form is raised and lowered by a pulley to allow for putting down the feed, enough silage being put down at one time for two feeds. One of our readers to whom this was recommended reports that he has fed as low as 24 inches of silage in 30 days without any spoilage, even though the thermometer reached at times 100° in the shade.

Other men have suggested taking down one-half of the surface of the silo for a foot or two and then cutting down the other half. The half portion of the silo from which no feed is taken is kept covered with moist material such as straw, hay, or canvas. There will be some slight spoilage at the top, but it is said to reduce the amount very materially. Other men report that they have had success with merely wetting down the surface of silage immediately after taking a portion off, using several pailfuls of water each time but not enough to make the silage sloppy.

We apprehend that when cold weather comes and when further down in the silo there will be comparatively little spoilage and it may not be necessary to follow any of the precautions suggested above. Even with these precautions, there is some doubt as to whether the present trouble will be entirely overcome in moderate weather.

Lice on Calves

Lice are a common source of trouble with young stock and unless kept under control seriously hinder growth. Calves infested with lice do not thrive. To get rid of lice, the quarters must first be thoroughly cleaned and thoroughly disinfected, every crack and corner, with a 5 per cent solution of coal tar dip. The calves themselves may then be treated by one of the following methods, all of which have been used successfully by competent herdsmen:

"One of the cheapest and most successful methods of combating lice is to brush raw linseed oil over the infected parts of the calf every few days."—Storrs Agricultural Experiment Station Bulletin 96.

"Washing the calf thoroughly with a 2 to 5 per cent coal tar disinfectant, such as zenoleum or creolin, is effective. The washing should be repeated in a week to kill any lice that hatch in the interval. If washing is done in cold weather, the calves must be rubbed with dry cloths and kept blanketed until dry."—Illinois Agricultural Experiment Station Circular 202.

"A good remedy for lice on calves may be made by steeping for four hours four ounces of Larkspur (Delphinium) in a gallon of boiling water, then straining and applying the liquid to the affected parts. In winter, if the calves are badly infested with lice and it is too cold to wash them, pyrethrum powder may be used to good advantage. As a rule, however, lice powders are not as effective as thoroughly washing or dipping the calves with some disinfectant."—Wisconsin Agricultural Experiment Station Circular 59.

"When calves become infested with lice, thorough washing of the entire body with a coal tar disinfectant, such as a 2 or 3 per cent solution of zenoleum, creolin, or lysol, is recommended. In the absence of any of these, a mixture of lard, one pound, and kerosene, one-half pint, should be smeared on the body. It is well to repeat the bath in a week or ten days to kill lice which hatch in the meantime. In cold weather care must be taken to dry the calves quickly and thoroughly after washing to prevent chilling."—Nebraska State Dairymen's Association.

Fall Pigs Versus Spring Pigs

The Minnesota Agricultural Experiment Station has recently reported the results of some hog feeding experiments, principally to determine the relative economy of finishing fall pigs for market as compared with spring pigs. A second purpose of the work was to compare the value of different combinations of feeds for growing pigs. The results of the work are published in bulletin 213.

The different combinations of feeds used were as follows: (1) shelled corn, red dog flour, tankage, self-fed and semi-solid buttermilk hand fed; (2) shelled corn, red dog flour, linseed meal, self-fed and semi-solid buttermilk hand fed; (3) shelled corn, red dog flour, tankage, linseed meal, self-fed.

The cost of 100 pounds gain for the fall pigs fed in dry lots was $5.22; of the spring pigs fed in dry lots, $5.71; and, of the spring pigs fed on alfalfa pasture, $5.52. No charge is included for the alfalfa pasture. The feeds given in the alfalfa lots being self-fed, a comparatively small amount of alfalfa was eaten.

The feed cost per 100 pounds of gain where shelled corn, red dog flour, tankage, and semi-solid buttermilk were fed was $5.85. Where shelled corn, red dog flour, linseed oil meal and semi-solid buttermilk were fed the cost of 100 pounds of gain was $6.05. Where the semi-solid buttermilk was eliminated from the ration and where shelled corn, red dog flour, tankage, and linseed meal were self-fed the cost of 100 pounds of gain was $4.54.

The authors of the bulletin, E. F. Ferrin and M. A. McCarty, draw the following conclusions from the feeding experiment:

Fall pigs are more difficult to raise than spring pigs but when handled carefully they are at least equally profitable. A greater variety of feeds is necessary to grow fall pigs satisfactorily because green crops are not available. Fall pigs make as rapid gains when well housed and handled as do spring pigs. The amount of feed required to produce gains was practically the same for pigs farrowed at the two different seasons. Cheaper gains were made by fall pigs because feed costs are lower in winter than in summer. Fall pigs sell at higher prices than do spring pigs.

Making Accurate Cream Tests

For several years past we have experienced trouble in the matter of checking up records and balancing butterfat purchased at receiving stations against our receipts at the creamery. Invariably the test does not come out as it should. We also find that if we make the test in the station and send a set of samples in to our creamery, which arrive within twenty-four hours after they are taken, some of them check very closely, others are off a half point and some a point, while others are as much as two points. What do you believe is a legitimate variation in test under these conditions?

California. W. C.

Comparisons of cream tests made by different persons show that it is difficult to make tests of the same sample of cream come out exactly alike. In any bunch of such tests, however, the differences are in one direction as much as in the other, provided that the testing is done with a reasonable degree of accuracy, so that averages of such comparisons usually check up quite close.

Where the testing is done carefully the great majority of the comparative tests agree and the majority of the differences do not exceed .5 per cent in the reading. Occasionally, however, there are differences as great as one and two per cent, but these marked differences are not so frequent.

There are many factors that influence the accuracy of the test, assuming that the sample used is representative. Experience has shown that it is difficult to find two men who will read the test exactly the same and that not infrequently the same man will read the same test differently when read more than once. The most common cause of differences due to reading the test are the indistinctness of the top line or meniscus of the fat column. This difficulty is practically eliminated by the use of glymol or red reader which, when poured on top of the fat column, removes the meniscus from the fat column and transfers it to the top of the glymol, making a sharply defined, straight line of demarkation between fat column and glymol. In the absence of the use of glymol, variations in readings by different individuals usually amount to from .5 to 1%. Larger differences in reading are generally due to accidental wrong reading, such as mistaking a 25% column for a 30% column and similar occasional errors.

Another factor very often overlooked that causes variation between station and creamery tests is the speed of the tester. Contrary to the general impression, too low a speed tends to make the test too high. The reason for this is that the difficulty of getting a complete separation of the fat from the remainder of the contents in the test bottle is not so much a question of getting all the fat out of the mixture of acid, water, and milk solids as it is a question of getting all the acid, water, and curd out of the fat column in the neck of the bottle.

At the proper speed, the fat in the fat column is practically pure butterfat but if the speed is diminished below that required then the fat column contains considerable quantities of non-fatty constituents and that causes the fat column to be longer than it should be and the test to be made too high. The proper speed for a 12-inch tester is 1,000 R. P. M. and for an 18-inch tester it is 800 R. P. M. By an 18-inch tester is meant a tester with a wheel diameter of 18 inches—that is, the distance between the inside bottoms of opposite cups measured through the center of rotation of the centrifuge wheel while the cups are horizontally extended.

The amount and manner of acid added is another important factor. If not enough acid is added the fat column is apt to be milky, containing a considerable amount of undissolved curd. The same happens if water is added to the test too soon after the acid has been added. Too much or too strong acid will cause the fat column to have a charred appearance and that, again, is not conducive to accurate reading. A satisfactory way to avoid the above defects due to acid is to proceed as follows:

After the cream has been weighed into the test bottle add 8 to 12 c. c. of sulphuric acid in the case of the 9 gram bottle or 14 to 17 c c. of acid in the case of the 18 gram bottle, or add acid until the mixture of cream and acid, after shaking, has assumed a chocolate brown color. Shake until all lumps have completely disappeared and the above brown color has been established, then add five to ten c. c. of soft water and whirl for 5 minutes. Now add hot water until the liquid column approaches near the top graduation. Then whirl one minute longer. Set the test bottles into a water bath at a temperature of 130 to 140 degrees F. and before reading each bottle add a few drops of glymol. Use calipers or dividers for reading the fat column.

It is obvious that such other factors as accurate cream test weights, sensitive cream test balance in good operating condition, proper preparation of the samples so that they are homogenous in body, and accurate weighing of the cream into the test bottle are all important.

As far as the balancing of the butterfat between station and creamery is concerned, shortages and differences between station fat and creamery fat are often due to the cream scales not weighing correctly, to the empty cans not being marked with the correct weight, to inadequate stirring of the cream before sampling, to not draining all the cream out of the cans when they are emptied thereby causing mechanical loss of butterfat.

Most of the conditions that cause differences between station and creamery fat are those that make the station report more fat than the creamery receives and, therefore, the eternal shortages of station cream at the creamery. A careful and continuous checking up of all of the above factors is the most promising means of reducing the above shortages and of making the tests and the pounds of fat check up closely.

Illinois. O. F. HUNZIKER.

The Ames Little International

GEORGE MARK, IOWA

THE 1924 Little International was held at Iowa State College, Ames, Iowa, the evening of October 24. The show was held in the college armory and a crowd, estimated at 2,000, turned out to watch the students and to cheer for their particular favorite showman. The college band, a team pulling contest, and a novel exhibition of the world's champion six-mule hitch, owned by Carr & Son, together with over 200 individual entries, kept the crowd well entertained.

The show is organized and managed by members of the Block and Bridle Club and every effort is made to imitate the happenings of the International Live Stock Show at Chicago. The organization of the Little International is quite different in one respect and this is the fact that there is considerable interest in the dairy cattle showing competition. All the dairy breeds were represented and competition was keener than ever before in all classes. For two weeks before the show the college dairy farm was in a constant state of turmoil and activity. Many enthusiastic young showmen labored at polishing horns, braiding tails, and brushing out dead hair until 2 and 3 a. m. in order that their entry would show at its best. Several men had spent a season or two on the show circuit and knew exactly how to make their time count while others made up their lack of knowledge by many hours of labor.

Two weeks before the show the cattle were assigned by drawing so that there was no opportunity for any man to pick any certain individual. A member of the dairy husbandry staff took careful note regarding the condition of each animal before the drawings were made, since the awards were made 75 per cent on the basis of improvement due to fitting and 25 per cent based on the showmanship in the ring. Each contestant was allowed 12 feet of rope with which to make an adjustable "show halter", a curry comb, a brush, and a generous supply of old burlap sacks for use in fashioning a "show blanket". Brief instruction sheets were supplied to all students fitting which dealt with the correct method of clipping, trimming, polishing horns, etc.

Twenty-nine head of well groomed dairy animals with silky hair and polished horns made up a well balanced exhibit which included one or more good rings in each of the four leading breeds, as well as two exceptionally good rings of bulls of mixed breeds. The young live stock men not only worked hard to gain the admiration of their best girls who were beaming on them from the ringside but the competition was doubly strengthened by the beautiful silver trophy cup offered by Hargrove and Arnold, breeders of Holstein cattle, of Iowa. Each of the breed papers offered a year's subscription to the winners in their particular breed.

The judges of dairy cattle were: Earl Weaver, Professor of Dairy Husbandry; Fordyce Ely, Assistant Professor of Dairy Husbandry, and David Taylor, foreman of the dairy farm.

The final selection was made from the four breed champions and Burch H. Schneider, a senior dairy husbandry student, was awarded the cup for his creditable showing of Ames Homestead Alpha, a three-year-old Holstein cow. Incidentally, this cow was the first daughter of Iowana Mercedes Homestead to finish a record and her record of 21,043 lbs. of milk and 620 lbs. of fat stamps her as one of the best. This animal made a wonderful showing and Burch had every detail exact from the marcel in the switch of her tail to the point of her well polished horns. The reserve grand champion, a young Ayrshire bull, shown by Orson Hempstead, a sophomore dairy husbandry student, was hard to fault and the ringside was about evenly divided as to which one of the two should receive the cup.



AMES HOMESTEAD ALPHA AND BURCH H. SCHNEIDER WHO FITTED HER FOR SHOW

The champion dairy cattle showman of the "Little International", held at Iowa State College, October 24, 1924, was Burch H. Schneider. The cow fitted by Mr. Schneider is the first daughter of Iowana Mercedes Homestead to finish a record. She produced 21,043 pounds milk and 620 pounds fat.

West Virginia Dairymen's Convention

G. MALCOMB TROUT, WEST VIRGINIA

AN excellent program was provided for the third annual meeting held at Wheeling, West Virginia, November 20—21, the keynote of which was the urge for quality as well as quantity of milk produced throughout West Virginia. Economical production of market milk was especially stressed. The worth of pure-bred sires, the economical returns from better feeding and care in sanitation of milk were emphasized in various addresses and later shown as visits were made to farms about Wheeling where these practices had been followed for years.

The afternoon session was opened by a short business meeting in which a committee was appointed for the distribution of pure-bred dairy sires. Since most of the dairying in West Virginia is practiced near the large cities where market milk is the chief product, there is no skimmilk for raising the calves. The result has been many good calves have passed by way of the block. The dairymen have had to go outside of the state to get animals to replace their herds. Instead of going out and selling their pure-bred bull calves, the West Virginia dairymen too often have had to refer the prospective buyer to some breeder outside the state. The tentative plan was for each pure-bred breeder to give to the association one male calf. This calf would be loaned to other localities by the association. In reality this would be a large bull association. H. L. Smith, prominent dairyman in Berkeley County, says, "Such a plan would be a great benefit to the small breeder, as it would mean many good calves saved from the block". Professor E. L. Anthony, head of dairying in West Virginia, pointed out that not only one-eighth of West Virginia's 250,000 dairy cows had to be replaced every year, but that the demand by beef breeders changing over to dairying was increasing. "It means the profitable sale of excess young stock," said he.

Dr. J. H. McClain, of the Bureau of Dairying, made the first address of the afternoon session, on "What shall we do about the bull business". He pointed out that there was a need for pure-bred bulls wherever cows were milked and that the best place to begin eradicating the scrub bull was from the small town where many have family cows. "It is human nature," he said, "to want to do something big, and at the same time overlook the fact that there is something to be done."



WEST VIRGINIA DAIRYMEN JUDGING GUERNSEYS AT WADDINGTON FARM. L. V. HARNER WON THE CONTEST

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To place pure-breds throughout the state of West Virginia would be to increase milk production sixteen per cent which would be equal to five hundred pounds more milk per cow. This increase would pay not only for the interest on West Virginia's farm mortgages, but $500,000 on the principal.

Professor A. A. Borland, of Pennsylvania State College, followed with a talk on the value of cow test associations. He maintained that economical production was in the hands of the dairymen, although the price might be in other hands. "Economically produced is profitably marketed," was the main spoke in the round of his lecture. As an illustration he presented the following figures taken from the records of Pennsylvania's thirty-four cow testing associations:

Lbs. milk per cow	Feed	Labor	Other expense	Total	Cost per 100 lbs.
3,730	$ 79.82	$51.19	$74.11	$205.12	$5.26
5,531	78.52	43.83	76.99	199.98	3.59
7,460	109.34	48.72	81.94	240.00	3.20
10,568	131.37	50.15	83.14	264.93	2.50

"Long life and prosperity to the cow test association" was his concluding remark on what he thought of the association in relation to better dairying.

P. F. Brenneman, president of the Dairymen's Co-operative Sales Company, of over thirteen thousand dairymen, rendered an interesting account of the growth of that organization throughout Ohio, Pennsylvania, and West Virginia. He explained in detail the benefits that the dairymen were receiving from this system of marketing.

Professor Oscar Erf of Ohio in his address, "Feeding The Dairy Cow", warned against feeding cheap feeds. "There is no cheap feed," he said. "The cow is just as finicky about her eating as you are." Some of the maxims of his lecture were: "Aim to make a ten-year record and not a one-year record." "High producing cows need plenty of minerals, which may be had through pasture or pea green alfalfa." "Get good cows, feed them well, and join a marketing association." In referring to high priced milk, he said, "You can buy milk plus filth at five cents a quart or milk strictly sanitary at seventeen cents. Take your choice."

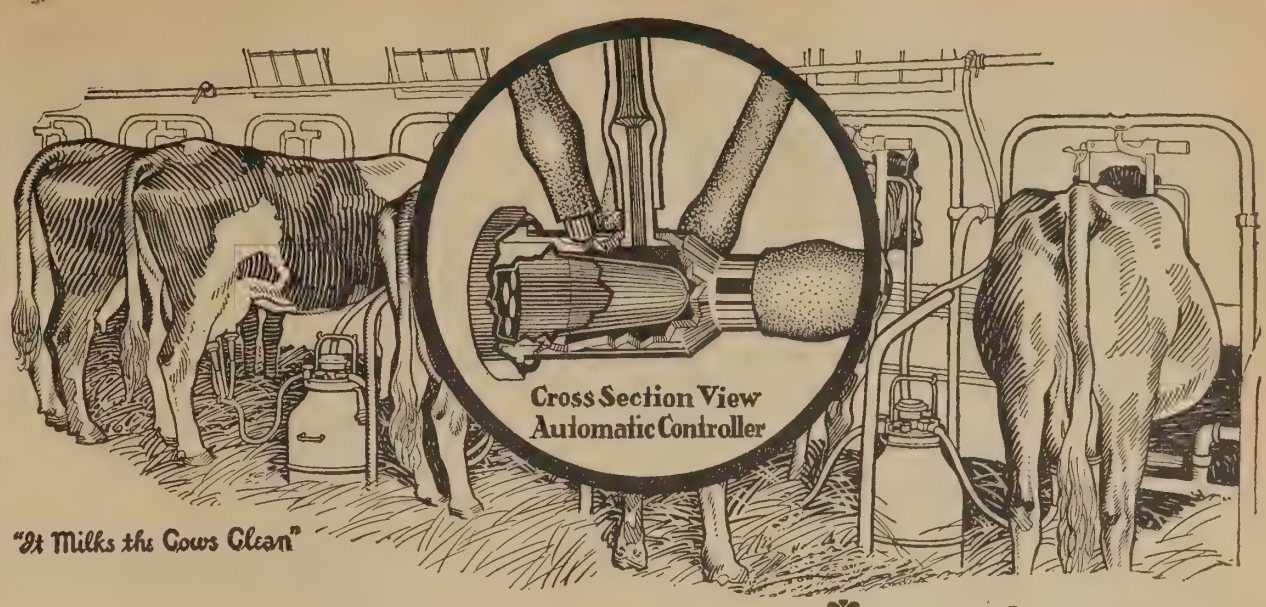
Professor E. L. Anthony of West Virginia University, who has spent the past year studying in Denmark, encouraged those present by stating, "Far away pastures are no greater than the pastures at home."

"Dairying in Denmark has not been a mushroom growth," he said. "They faced the same troubles we are facing today—competition, disloyalty". Denmark's big lesson was to learn to trust each other. With that lesson learned they are now organized on the basis, "This is good for all of us." "The problem of the dairymen today is to think together."

On the last day of the meeting a tour was made to prominent dairy farms near Wheeling. The first stop was made at W. A. Schuetz's home, where it was shown that milk with low bacterial count could be produced with common equipment. Dr. Wilson, City Health Officer of Wheeling, pointed out, "There are two things absolutely essential to the production of clean milk—hot and cold. The utensils must be scalded and the milk cooled just as quickly as it is drawn."

At the Waddington Farm all the dairymen competed in a judging contest for a gold medal offered by the West Virginia Dairymen's Association. L. V. Harner of Morgantown was the winner.

The convention next year will be held in Parkersburg. The following officers were elected for the ensuing year: M. C. Hine, president; H. L. Smith, Amos Tebay, and C. A. Jackson were named first, second, and third vice-presidents respectively. J. V. Hopkins, West Virginia State Dairy Specialist, responsible for the success of the meeting, was unanimously elected secretary and treasurer of the association.



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A COW that gives down her milk easily requires less suction in the teat-cup than a hard milker. Also, a cow requires less suction during the middle of the milking than toward the end of the milking. To give just the right suction to *each cow* at *each period* in the milking is the ideal attainment of the Burrell Milker. It is just such accomplishments as this that make the Burrell a practically *perfect* milking machine.

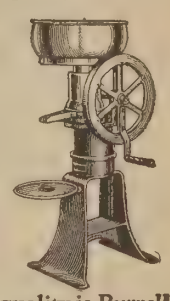
Just the right suction in the Burrell Milker is the result of the Automatic Controller, illustrated above. It controls the exact degree to which air is exhausted from the teat-cup — the exact extent to which vacuum, or suction, is applied to the teat. When milk is flowing freely, suction is automatically decreased. When milk is flowing less freely, suction is automatically increased.

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Friendly Talks for Farm Folks

Eben Holmes used to be such a reader that the twenty-four-hour-day hardly seemed long enough for him to peruse the hundreds of borrowed periodicals and books which he would get hold of in a year. At meals, before sleeping and immediately after, even while taking his Saturday night ablutions, Eben was married to his book or paper—on adventure, mystery, or history bent in lands afar. Speaking of Eben's reading while taking his bath, his wife says that one time she waked up in the middle of the night and her faithful spouse had not yet come to bed. As she had left him making ready to enter the big washtub several hours before at retiring time, she was naturally rather worried, picturing poor Eben drowned in the tub or sprawled on the floor—the victim of a soapy misstep. So she sprang out of bed and hustled to the kitchen door where her husband had started to bathe some time previous. There she beheld Eben seated in water, their son's music standard laboriously propped in front of the tub and on that a heavy tome which she could see was being avidly devoured by the book worm in the dwindling and flickering flame of one lone kerosene hand-lamp. Not even her loud whisper of "Eben Holmes!" brought the aforesaid back to the grim realities of Saturday bath night. So Mrs. Holmes advanced to the tub, inserted her hand in the water which had turned almost ice cold during the hours Eben had immersed himself therein, and then shook her husband smartly. Mrs. Holmes says that Eben was pretty well water-logged that time and had a dreadful cold soon afterward which nearly but not quite ended in pneumonia. Either the scare or something sort of turned the man from his excessive reading, or it may have been the fact that soon afterward Eben's eyes gave out and he couldn't see a word without the help of encumbering spectacles. At any rate, Eben has turned his attention to the pursuit of other things to a greater degree than for years, to the outspoken relief of his wife. As Mrs. Holmes often says, her Eben carried this reading idea a sight too far.

When the frost is on the mower and the snow is on the rake, makes a neighbor feel like swearing just for old time's sake. For such tools have all been faithful, everyone has done its bit, yet far off in cold fence corners they are rusting as they sit. Owners take their ease in houses, they'll not worry 'til next year when the sower falls to pieces and the spreader's out of gear. Then they'll swear around and mutter that a feller's out of luck with machinery all broken—trying to farm with poor old truck; and the mortgage due next Monday and that big note at the bank—What's the use of keeping at it in a world so dark and dank? When the frost is on the tractor and the ice hangs on the drag, sort of seems as if old Neighbor 'd want to hurry up—not lag; for the elements are waiting just to turn 'em all to rust; better get 'em under cover or we'll all go bust.

New York. HELEN S. K. WILLCOX.



Christmas Sweets

It may not be good for our stomachs but once a year we like to feel that there is plenty of candy in the house. I never feel that it is right to make Christmas a time of over-indulgence and consequent bad feeling but it is heartening to know that when our common sense tells us that it is all right for us to have candy, there is an attractive supply.

The children will not suffer from too much in the way of sweets if they are taught—and the rule strictly observed—that candies are to be eaten only after meals; that is, in place of dessert.

Fondant, for several reasons, is the best all-round standby for the Christmas candies. You can make it up quite a long time in advance, it is not hard to make, and it can be used in endless ways. For this take:

2 cups sugar, 1¼ cups water, 2 tablespoons light corn syrup, flavoring.

Put all but the flavoring into a pan and stir until the sugar is dissolved. When it begins to boil, cover it and cook for three minutes letting the steam wash the sugar crystals down the sides of the pan. Uncover and continue boiling till it makes a soft ball in cold water (238 degrees F.) If there are any crystals on the edges wipe them off with a damp cloth twisted around the tines of a fork. Pour onto a cool, wet plate, cool to lukewarm, beat with flat knife or spatula till creamy, add flavoring, and then knead with the hands till perfectly smooth. Put in a tightly closed jar. It is better if not used for several days.

With a quantity of fondant you need ask odds of no one. You can make candy of any shape, size, or color you like; you can work chopped nuts into it; you can shape it first and then roll it in nuts; you can roll it into a long roll, putting in the center a piece of fondant that has been worked up with nuts and candied fruits and then rolling the whole piece in chopped nuts; you can just shape it into pieces and then press a piece of candied fruit or a half nut into the top. There is a lot of fun in fondant as it gives you a chance to use your own ingenuity. Of course, you can also dip it in chocolate but that is ticklish business and only experts are 100 per cent successful.

When it comes to standbys, fudge is right in the front ranks. It can be worked over just as fondant can, except that it will always be the "little brown brother". The only twist to fudge making is the temperature of cooking and cooling before beating. If you use these proportions you can hardly have a failure; to each cup of sugar take one-third of a cup of milk, 1 tablespoon light corn syrup, 1 square of chocolate, 1 tablespoon of butter, and one-half a teaspoon of vanilla. Cook all but the last two ingredients to the soft ball stage, add these, cool entirely, and then beat till the mixture loses its shiny look and will keep its shape when a bit is dropped from the spoon. Good fudge can always be shaped with the hands and is never nicer than when made into long rolls, rolled in chopped nuts, and then cut off in pieces.

Here is a recipe for never-fail Christmas hermits. I imagine they are called that because you can make them up two weeks ahead of time and simplify your Christmas work:

3 cups brown sugar
1 cup shortening
4 eggs
½ cup sour milk
3 cups flour
1 teaspoon soda
½ teaspoon each of cloves and nutmeg
1 teaspoon cinnamon
1 cup each of chopped nuts and raisins

All level measures. Mix together, sifting the soda in with the flour. Drop onto a greased pan or baking sheet one teaspoonful at a time. Cool and then put away in a stone jar or tin can. They really improve with age.

Stuffed prunes are medicine that is good to take. We all know their laxative effects but somehow we don't want to eat them, anyway. You'll have no trouble if you stuff them. Take about a pound, wash them thoroughly in cold water and let them soak over night in just enough water to swell them up. Cook them in this water very gently with the lid on until they are done. Drain off (and save) any water that may be left on them. When they are quite dry remove the seeds and insert a nut bringing the cut edges together closely. Roll in granulated sugar. The liquid makes a good drink.

Here is a wonderful dessert recipe that I have found only lately and have tried only once but that is enough to prove that it is practically impossible for even the least experienced cook to fail with it. It is one of those desirable finishes to a meal that is filling but not heavy. Its only drawback is that you must live near enough to a town so that you can buy lady fingers; after that it is smooth sailing and takes only about thirty minutes' work. Fortunately it must be made the day before it is wanted so if you are going to have a party you will have the dessert off your mind 24 hours before the guests arrive:

2½ dozen lady fingers
1 cup rich milk
1 tablespoon butter
1 tablespoon cornstarch
½ cup sugar
3 eggs
juice of one lemon
½ pint heavy cream.

All the ingredients above except the first and last are used in making a lemon filling. Mix thoroughly the corn starch, sugar, egg yolks, milk, and butter and cook slowly over water until thick and smooth, stirring almost constantly. Add the lemon juice and while still warm fold in the stiffly beaten egg whites.

Arrange lady fingers in the bottom of a bread pan in a row, cover with the custard, place on top another row of lady fingers, and so on until all are used. Four single layers makes a good depth. Set away in a cool place. The moisture of the custard will swell the lady fingers, giving the whole the appearance of sponge cake when removed from the pan. When serving, it is pretty to put the "cake" onto a large platter or flat plate and flank it with the cream which should be whipped and flavored. It is carried to the table and there served on individual plates. A sprig of holy or other Christmas green gives it a holiday air.—Lucy Thompson.

The Dessert for Christmas Dinner

If you are pondering over the Christmas dinner dessert trying to decide between plum pudding and mince pie, why not just divide the difference and have ice cream or a fruit ice? The former is not as foolish for the occasion as it sounds and the latter still less so.

By the time the end of the dinner is in sight, everyone has eaten as much as he really ought to have and the dessert is usually that much too much. Everyone is warm from the heat of the room and of that generated by rich food and a cold, light dessert is an ideal ending to the meal.

Ices are almost as easy to digest as water and they are particularly simple to have if you have just had a fruit salad; the juices from this can make the ice. The freezing is easy, too. I usually do not bother to stir an ice in the regular way at all but just put it into a container of some sort, put this in turn into a larger vessel and pack the space between with a mixture of three parts chipped ice to one of salt. Of course the inner vessel should be tightly covered. When this has stood a half hour open it, take a spatula or thin knife and stir it all down from the sides. Continue this until the whole mixture is well frozen.

Freezing in a freezer obtains the same results but is a little harder work. More salt causes faster freezing but is likely to make a grainy texture. Here is a simple recipe for any sort of fruit ice:

2 cups fruit juice
2 tablespoons lemon juice
2 cups sugar
1 quart water.

It is best to boil the sugar and water into a syrup first.

Here are three kinds of ice cream recipes; the kind that takes eggs, the kind that takes flour, and the kind that has just plain cream for its body. We will take the recipes in that order:

1 cup syrup
5 egg yolks
1 pint heavy cream
⅛ teaspoon salt.

The syrup may be maple, caramel, or plain. In the last case you will then want to add vanilla or some other flavor. Beat the eggs and pour over them the hot syrup, stirring all the time. Cook over hot water until the mixture thickens. Cool. Whip cream stiff; fold in syrup and salt. This is best if not stirred at all but is simply packed in salt and ice in a mixture of two parts ice to one of salt and allowed to stand three to four hours.

If flour is used take

1 pint heavy cream
1 quart milk
2 tablespoons flour
1½ cups sugar
2 eggs
¼ teaspoon salt
vanilla.

Beat eggs and combine with flour, salt, sugar, and milk. Cook over hot water until slightly thickened. Strain, cool, add cream, and vanilla.

For the plain ice cream take

4 cups of cream
1 cup sugar
1 tablespoon vanilla
⅛ teaspoon salt.

Any of these recipes for ice cream

(Continued on next page)

Fashion Magazine

Our Fall and Winter Fashion Magazine contains about 300 styles, new hot-iron transfer designs, illustrated dressmaking lessons, a section devoted to styles for children for school, play, and "dress-up" occasions and there are also two pages of pretty Christmas gifts that you can make at home. This book is worth many times its price so we suggest when you send your pattern order that you enclose 10c extra for a copy. Address your order to Fashion Department.

Miscellaneous Fashions



No. 2097—Youthful Style. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 2⅞ yards 40-inch material.

No. 2231—Becoming Lines for the Mature Figure. Cut in sizes 36, 38, 40, 42, 44, 46, and 48 inches bust measure. Size 36 requires 3⅛ yards of 40-inch material with ⅞ yard 36-inch contrasting.

No. 2239—One-Piece Dress with Convertible Collar. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3⅝ yards 40-inch material with ⅝ yard 27-inch contrasting.

No. 1835—One-Piece Apron. Cut in sizes 36, 40, and 44 inches bust measure. Size 36 requires 2 yards of 36-inch material with 8¾ yards of binding.

No. 2188—Boys' Suit. Cut in sizes 2, 4, 6, and 8 years. Size 4 requires 1 yard 36-inch for blouse and ¾ yard 36-inch for the trousers.

No. 1641—Attractive Style for the Older Woman. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 requires 3¾ yards 44-inch material with ⅜ yard 36-inch contrasting.

No. 2192—For Little Men. Cut in sizes 2, 4, 6, 8, and 10 years. Size 4 requires 2 yards 32-inch material with ¼ yard 36-inch contrasting and ⅝ yard 27-inch lining.

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A hot school lunch gives kids some punch.

may be changed by the addition of mashed fruit. This may be fresh, canned, or dried and stewed.—Lucy Thompson.

This Gift Giving Business

"This gift-giving business, I wish it had never been invented," said a woman when she was expressing her relief that Christmas was over with. You may be sure that the expression was made only in the presence of her most intimate family, for any woman should not find it necessary to relieve herself with such an utterance.

"Why not cut it out, if you find it too much trouble?" said one of her family.

"What, no presents? Of course we must give presents or what would become of our Christmas spirit?"

Right there is the mistaken idea: that presents make the Christmas. We have always had them and therefore we must keep on giving them to everyone who gives us any. It is said there were three Wise Men:

"Three caskets they bore on their saddle-bows
Three caskets of gold with golden keys,
Their robes were crimson silk, with rows
Of bells and pomegranates and furbelows,
Their turbans like blossoming almond trees."

Thus the three wise men came out of the East "bearing gifts of gold, frankincense, and myrrh": signifying peace, purity, and good will. Thus was instituted for the first time the practice of giving presents.

The Bible says they were three wise men and no doubt they selected their gifts wisely. Their presents were not intended to be showy, but were such that expressed the good will and esteem of these men for their new king.

This custom of giving presents we have followed faithfully enough but the wisdom and good will with which the giving is done is lacking very often. If it were not true, we would hear no such expressions as I quoted in the first part of this article.

The housekeeper and mother is usually the person who feels the strain of Christmas the most. On her falls the responsibility of the whole family and very often the members of her husband's family as well. She must make long lists of names and against each name write a present that must be made or bought or contrived somehow. Very often she has had hours of extra work, sitting up late at night to make aprons, dress dolls, or do so many of the things necessary to get off a collection of presents. So we find her so busy that she cannot find any time to enjoy the good will that the season should bring to her. She is forced to degrade the true ideal Christmas stands for by the very presents she gives.

But how can we give presents and still preserve the beautiful spirit of Christmas?

The answer is by choosing our gifts as the three wise men chose theirs. In the first place they chose the things that were precious to the market but which abounded in nature in their own land. They brought something which represented their own country. And they brought them with no thought of having a present in return, but simply to show their love and esteem. Their gifts did not imply money, worry, or work but simply the bounty of nature which they in their own country enjoyed.

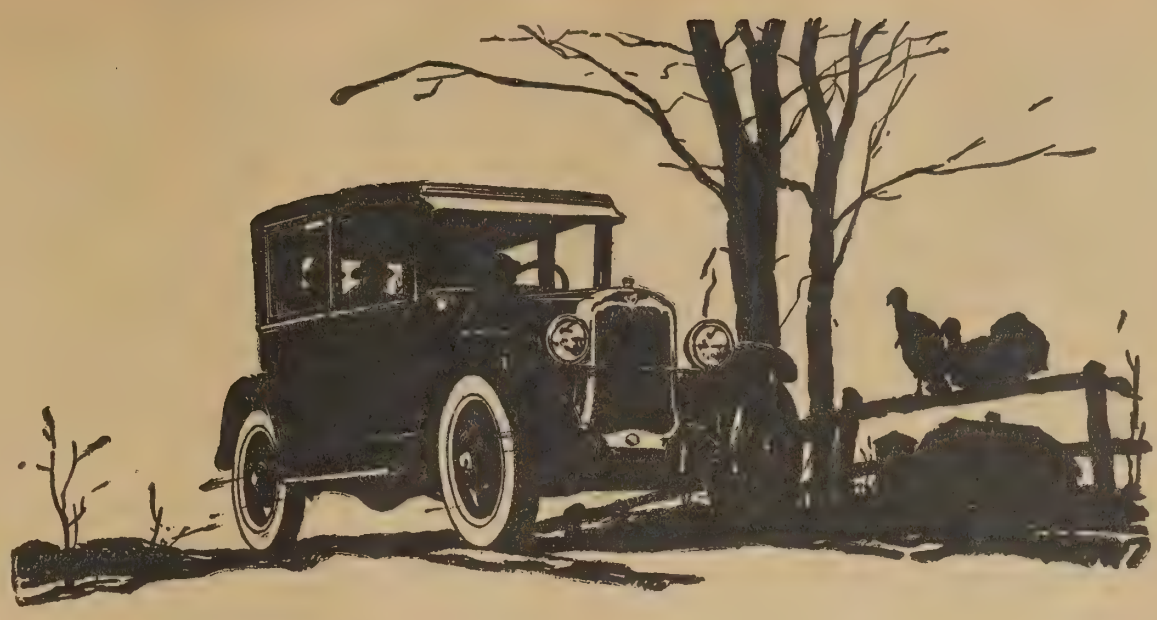
The ideal Christmas present should be an expression of our love and good will toward the one it is extended to. It should be one that comes from our own feeling of the Christmas spirit, and not one with which we hope to induce the Christmas spirit in ourselves. It should not hint at worry or money spent, or at hours of dread and labor.

Perhaps you received a pretty remembrance from some friend last year from whom you did not expect it. Perhaps you will receive another this year. Be content with the friendship your friend is showing. Tell her what pleasure it has given you and express your good will by a letter or a call. There are so many other ways of sending good wishes other than making presents. If, however, you have plenty of time and enjoy nothing more than to make with your own hands the loving little touches that will express your good wishes to your friends, why then by all means remember your dear ones with some gift. Be sure that it is something that gives you pleasure to give.

For the children particularly, I think gifts are very appropriate. They find so much pleasure in the things that are not expected. They, too, I think, get more of the Christmas spirit and appreciate it more if they are let in on a secret or two. They love the mystery that is connected in the preparations. Because they enjoy this part of it as much as the actual receiving of their own presents, I think they should be allowed to help trim the tree and be taught to plan little surprises for father, mother, and other members of the family.

The most important thing about the whole of Christmas is the cultivation of good will and this should be especially emphasized in the case of the children. It is not a time for them to make unreasonable demands and to cultivate an ugly disposition if they do not get the whole of what they expected. Sometimes parents can help to avoid such disagreeableness in the attitude they take toward the holiday season. Very often they suggest things that the children themselves would never have thought of. They also begin to make promises long before Christmas that they have no intentions of carrying out. Or, they will say, if you are good, Santa Claus will bring you this and this. Let the children feel that they can be Santa Claus to someone by extending good will to that person.

Every year there are people who say the Christmas spirit is dying out, but it never will. It is only the individual who is losing some of the good spirit and happiness because he has substituted gift giving as a matter of routine for the exchange of good will. When individuals shall begin to get more interested in the spreading of good will than in perfunctory gift giving, they will enjoy the fullest and most beautiful Christmas.—SOPHIA K. ORMOND.



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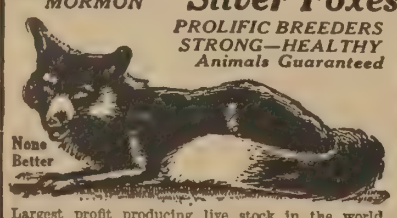
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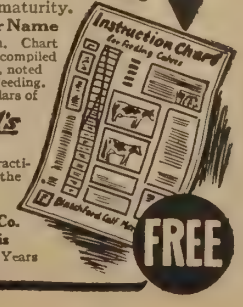
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DAIRY MARKET NEWS

November Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers for 3.5% milk delivered at factories during November is based on reports made by condensed and evaporated milk firms.

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.12	$2.12
Middle Atlantic†	12	1.58—2.60	2.04
South Atlantic			
E. No. Central	74	1.50—2.40	1.66
W. No. Central	4	1.57—1.65	1.60
South Central			
North Western	12	1.57—1.71	1.68
South Western	9	1.60—1.75	1.64
United States	112	1.50—2.60	1.71

†65 additional factories reported prices to be based in part on the current month's wholesale butter quotations. 23 factories reported prices not determined, and 9 reported plants closed.

The 12 at factories in the Middle Atlantic Section not included in the previous report averaged $1.90 per cwt. for 3.5% milk in October in the 201—250-mile freight zone from New York City.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for October:

	Range	Ave.
Condensed, per case	$5.20— 6.35	$5.70
Condensed, per cwt.	6.90—11.00	9.34
Evaporated, per case	3.25— 4.45	3.80
Evaporated, per cwt.	7.00—13.00	9.12
Condensed skim, per cwt.	4.00— 7.00	5.91
Evaporated skim, per cwt.	2.00— 7.60	3.96

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were firm and about 1½c higher during week ending Nov. 29. Fairly active trading. Colder weather in producing sections may cut down production. Firm butter markets lent some indirect support.

The average wholesale prices on American cheese, style Twins, for the week ending Nov. 29, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Nov. 29 1924	Nov. 22 1924	Nov. 29 1923
	Cts.	Cts.	Cts.
New York	21.7	21.5	25.0
Chicago	19.1	19.1	22.0
Boston	21.6	21.5	26.3
San Francisco	20.0	19.6	25.4
Wisconsin Board	19.2	18.8	22.1

The receipts of cheese at these markets were 3,896,179 lbs. for the week as compared with 3,329,467 lbs. last week and 3,786,405 lbs. a year ago.

Wisconsin November Condensery Prices

(Wisconsin Department of Markets)

The following table gives the prices paid for milk delivered at the plants listed herewith. Hauling charges must be deducted from the prices if prices for milk on the farm are desired. Some of the plants in the list are not strictly condenseries as they make a practice of bottling part or nearly all of their milk and prices paid by such plants usually run higher than those paid by straight condenseries. Some plants pay a certain price the first half of the month and different prices the last half. In such cases the prices for the two periods are averaged. If prices for the current month are not available the price for the preceding month is given.

City	Price to producers per 100 lbs.	Test of basis of payment	Price paid for 3.5% milk
		%	
Berlin	$1.75	4.0	$1.54
Bloomer	1.85	4.0	1.62
Brooklyn	2.00	3.5	2.00
Burlington (Nestle's Co.)	1.80	4.0	1.60
Chilton	1.80	4.0	1.57½
Clinton	2.00	3.5	2.00
Columbus	1.85	3.5	1.85
Darien	1.90	4.0	1.66
Delavan	1.80	4.0	1.60
East Troy	1.65	3.5	1.65
Elkhorn	1.65	3.5	1.65
Footville	1.65	3.5	1.65
Fox Lake	1.65	3.5	1.65
Greenville	1.80	4.0	1.57½
Genoa City	2.40	3.5	2.40
Hartford	1.70	3.5	1.70
Jefferson	1.60	3.5	1.60
Johnson Creek	1.60—1.70†	3.5	1.60
Juneau	1.90	4.0	1.70
Lake Mills	1.50	3.5	1.50
Manawa	1.80	4.0	1.57½
Markesan	1.65	3.5	1.65
Marshall	1.85	3.5	1.85
Mayville	1.92	4.0	1.68
Merton	1.60	3.5	1.60
Monroe	1.80	4.0	1.57½
Monticello	1.80	4.0	1.57½
Neillsville	1.84	4.0	1.61
New London	1.80	4.0	1.57½
North Prairie	1.60	3.5	1.60
Oconomowoc	1.60	3.5	1.60
Orfordville	1.80	4.0	1.57½
Osseo	1.80	4.0	1.57½
Richland Center	1.75	4.0	1.54
Sawyer	1.62½	3.5	1.62½
Sharon	1.90	4.0	1.66
South Germantown	1.75	3.5	1.75
Spencer	1.43½	3.5	1.43½
Stoughton	1.90	4.0	1.66
Sullivan	1.60	3.5	1.60
Walworth	1.70	3.5	1.70
Watertown	1.65	3.5	1.65
Waupun	1.65	3.5	1.65
West Bend	1.92	4.0	1.68
Weyauwega	1.80	4.0	1.57½
Albany*	1.50	3.5	1.50
Belleville*	1.60	3.5	1.60
Burlington (Bad. Co.)*	1.95	3.5	1.95
Darien*	1.90	4.0	1.66
Denmark*	1.70	3.6	1.66
Fond du Lac*	1.86	3.6	1.81
Johnson Creek*	1.60	3.5	1.60
Green Bay*	1.45	3.5	1.45
Hillsboro*	1.60	3.6	1.56
Lodi*	1.89	4.0	1.70
Middleton*	1.58	3.5	1.58
Oostburg*	1.80	4.0	1.57½
Racine*	2.63½	3.5	2.63½
Reedsburg*	1.89	4.0	1.70
Sparta*	1.85	4.0	1.62
Valders*	1.90	4.0	1.66
Waukesha*	1.65	3.5	1.65

*October prices. †Second half.

Carload Prices of Hay, Straw, and Feed, Nov. 29, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26.50	26.50	.....	21.00	21.50	26.50	26.00	23.00	19.00	24.00	18.50	23.50	....	16.00	
No. 1 Clover, mixed	.....	.....	.....	19.50	18.00	.....	.....	.....	17.50	.....	16.50	.....	.....	15.00	.....
No. 1 Clover	20.00	.....	.....	19.00	.....	.....	.....	.....	19.00	17.50	.....	20.50	.....	15.50	.....
No. 1 Alfalfa	.....	30.00	.....	.....		36.00	30.00	27.00	27.00	23.00	23.00	.....	17.00	21.75	26.00
Standard Alfalfa	.....	25.50		.....		30.00	28.00	25.50	.....	20.00	20.00	.....	15.50	18.50	25.00
No. 2 Alfalfa	.....	23.50	.....	.....	.....	.....	25.50	22.00	24.00	15.00	17.00	.....	13.50	16.75	23.00
Oat Straw	13.00	14.50	14.00	12.00	13.50	.....	.....	.....	11.50	10.00	9.00	.....	7.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	33.75	.....	33.50	31.50	32.25	35.00	.....	.....	.....	29.50	26.50	.....			
Soft Winter	34.75	.....	35.00	52.50	34.50	35.50	.....	30.00	31.50	.....	.....	26.25	.....	26.50	69.00
Hard Winter	.....	.....	34.50	32.00	...	35.00	.....	29.25	31.00	30.00		27.75	25.50	26.50	.....
Wheat Mid dlings	.....	.....													
Spring (Standard)	36.50	.....	36.00	35.00	34.75	.....	.....	.....	35.50	.....	29.00	.....	.....	.....	.....
Soft Winter	.....	.....	42.00	38.50	35.00	45.00	.....	.....	37.50	.....	.....	35.00	.....	33.00	47.00
Hard Winter	.....	.....	.....	39.00	.....	41.00	.....	.....	37.50	.....	.....	34.25	32.50	33.00	.....
Wheat Millrun	.....	.....	.....	.....	.....	39.00	.....	.....	.....	.....	29.50	.....	.....	20.00	39.00
Rye Middlings	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.00	.....	.....	.....	.....
High Protein Meals															
Linseed	52.50		50.70	49.40	.....	.....			48.50	46.60	44.00	47.50	49.10	49.50	48.00
Cottonseed (41%)	48.00	.....	46.00	45.20	.....	.....	.....	38.00	42.50	43.00	44.00	41.00	.....	.....	.....
Cottonseed (36%)	45.25	.....	44.50	42.70	.....	36.00	.....	36.00	40.50	41.25	42.00	38.00	.....	.....	.....
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	55.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	31.50	.....	.....	.....	29.00	26.00	.....	26.00	25.00	23.00	30.00
Gluten feed	46.95	.....	46.00	43.70	45.50	.....	.....	27.75	42.70	39.80	43.00	.....	.....	.....	.....
Hominy feed (white)	.....	.....	47.00	.....	43.50	45.00	.....	.....	44.50	44.50	.....	42.00	43.00	.....	.....
Hominy feed (y'llow)	.....	.....	45.75	.....	43.25	45.00	.....	.....	44.50	44.00	41.00	.....	43.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	.....	.....	.....	.....	.....	53.00
Dried Beet pulp	.....	.....	.....	...	37.75	.....	.....	.....	.....	.....	32.00	.....	41.00	.....	37.00

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were firm early in the week ending November 29, but showed a weaker tendency at the close. Prices netted gains of about 4c during the week. Markets were irregular at the close and out of line with each other, indicating later price readjustments. Very active movement of storage butter on account of scarcity of fresh. Production reports indicate slight increase. Foreign markets were firm. No exports. Small quantity of butter previously shipped to England returned.

The average wholesale prices on 92-score butter for the week ending Nov. 29, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Nov. 29 1924	Nov. 22 1924	Nov. 29 1923
	Cts.	Cts.	Cts.
New York	46.6	44.0	53.6
Chicago	40.7	43.6	51.8
Philadelphia	46.1	44.0	53.9
Boston	45.4	43.0	51.7
San Francisco	41.4	39.1	47.6

The receipts of butter at these markets were 8,727,568 lbs. for the week as compared with 8,467,466 lbs. for last week and 8,944,928 lbs. a year ago.

October Powdered Milk

(Report by U. S. Dept. of Agriculture)

Producers supplying powdered milk plants during October received from $1.60 to $2.45 a hundred for 3.5% milk. These plants pay from 15c to 25c a hundred for skimmilk and from 6c to 18c a hundred for buttermilk.

During October powdered whole milk sold for 56c to 60c per pound as case goods and for 22c to 28c per pound in barrels. Powdered skimmilk sold for 40c to 44c per pound as case goods and for 6c to 12c a pound in barrels. Dried buttermilk sold for 3½c to 10c a pound in barrels.

CHICAGO, Dec. 8—The butter market today ruled steady, with trading dull and all grades showing an accumulation on dealers' floors. Dealers while not offering concessions, were in most quarters willing sellers. Buyers were critical as to quality and only interested in immediate needs. The centralized car market was steady, but buyers showed practically no interest. Storage centralized cars were about steady, but little business was reported.

Fresh Butter—92-score, 43½c; 91-score, 41½c; 90-score, 40c; 89-score, 36c; 88-score, 35c; 87-score, 33c; 86-score, 32c. Centralized car lots—90-score, 41½c; 89-score, 37c; 88-score, 35c.

MILWAUKEE, Dec. 8—Creamery, extra, tubs, 44c; standards, 42c; extra firsts, 41@41½c; firsts, 38@40c; seconds, 34@37c.

Eggs—Fresh gathered, firsts (new cases including cases) candled 53@54c; miscellaneous lots, shipping cases, returned, candled, 51@52c; seconds, dirties, 30@31c; checks, 29@30c.

Cheese—American full cream, Twins, 20@20½c; Young Americas, 21@21½c; Longhorns, 21@21½c; Daisies, single, 22@22½c; squares, 22@22½c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

FOND DU LAC, Wis., Dec. 5—Average cheese prices (majority of sales), f. o. b. shipping point: Single Daisies, 21c; double Daisies, 20¾c; Longhorns, 21¼c; square prints, 23c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Dec. 6—Single Daisies, 20½c. On Farmers' Call Board Dec. 5—Young Americas, 20⅞c; Longhorns, 20¾c; square prints, 21c.

NEW YORK, Dec. 8—Butter—Quiet; receipts, 8,017 tubs; creamery extras, 44½@45c; specials, 45½@46c.

Eggs—Quiet; receipts, 4,200 cases; white, fancy, 73@74c; fresh firsts, 52@64c; western whites, 38@72c.

Watertown Holstein Sale

At the Watertown Holstein sale held Nov. 19th at Watertown, Wis., 81 registered Holsteins were sold for an average of $114 with some good bargains for many of those who attended. Two hundred seventy-five dollars was the top price. R. C. Stolper of Wisconsin paid this for a very good 25-lb. cow consigned by J. E. Altwies.

J. E. Mack did the selling and Francis Darcey managed the sale.

The averages for cattle of the different classes follow: Twelve yearlings and young heifers averaged $65; 9 two-year-old heifers averaged $105; 8 three-year-old heifers averaged $138; 20 older cows averaged $132; 27 bulls averaged $114.

Lake Mills Holstein Sale

The average of $106 for 94 registered Holsteins sold at the Lake Mills, (Wis.) consignment sale Nov. 20th, really is not indicative of the kind of a sale it was. One large consignment from the northern part of the state which was poorly grown and not in sale shape, brought very low prices and made a very noticeable difference in the sale figures. Aside from this it was the kind of a sale that should have interested the buyer who wanted good straight cattle at fair prices.

Mack, Blake, and Chatfield did the selling with Sale Manager Everson in the box.

The average for cattle of different classes was as follows: 21 yearling and younger heifers averaged $80; 18 two-year-old heifers averaged $84; 14 three-year-old heifers averaged $100; 30 older cows averaged $133; 10 bulls averaged $113.

Waukesha Co. Holstein Sale

Waukesha County Holstein breeders held a two-day consignment sale Nov. 17—18 at Waukesha, Wis., offering 121 head that brought $16,475, an average of $136. The first day was given over entirely to the sale of bulls that averaged almost $10 a head higher than the figure for the entire sale.

Top price was $585 for a 31-lb. 8 months' old grandson of Iowana Sir Ollie consigned by Lewis Bros. and purchased by Geo. H. Die and Sons and R. Klofanda of Wisconsin.

Mack, Walker, and Mann did the selling with Everson and Secretary Baird in the box.

The averages for cattle of different classes are as follow: Twenty yearling and younger heifers averaged $81; 10 two-year-old heifers averaged $115; 14 three-year-old heifers averaged $135; 32 older cows averaged $164; 45 bulls averaged $145.

Says Sam: An attack, to be effective, needs to be softened by tact.

One Little Card

that is putting Thousands of Dollars in Dairymen's Pockets



It's a Milk Record Blank that you get *free* with Purina Service. Here's what one of the biggest feeders said:

"I don't know anything about your feed. I've never fed it nor seen it fed. I don't know any one in your organization, but I do know this: If you folks put out milk scales below cost and distribute milk sheets free and invite people to check you up on cost of production, you *must* be lowering the cost of production or you couldn't stay in business.

"All I need to know about your feed is told me in that plan of yours. The milk sheets and milk scales *make* you lower my cost."

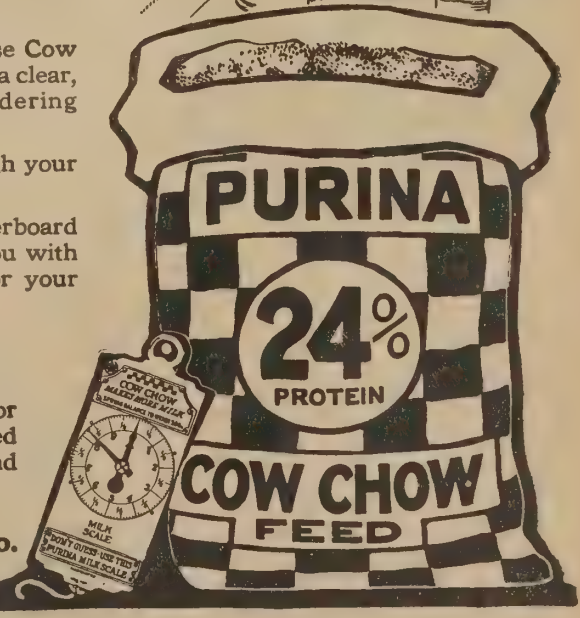
This man is a steady Cow Chow feeder today, because Cow Chow DID lower his cost of production, but wasn't that a clear, commonsense line of reasoning he used in considering Cow Chow?

Isn't he right? Isn't the clear thinking of this man worth your own consideration?

Go to the feed dealer with the red and white checkerboard sign who carries Purina Cow Chow. He will supply you with Milk Record Blanks *free*. Figure on Cow Chow for your Winter ration and make more money.

Cow Book—Free

Ask your Purina dealer for free milk record sheets, or write us. We'll send you the 100-page, illustrated edition of the Purina Cow Book. No charge and no obligation.



PURINA MILLS, 900 Gratiot St., St. Louis, Mo.

Seven Busy Mills Located for Service

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

New Mexico Juniors Meet

The annual encampment of the 4-H club members of New Mexico, held October 14—16 at College Station, broke previous attendance records when over 200 young people, county workers, and chaperons came together for club work exhibits, demonstrations, and judging contests.

The program started before eight o'clock on October 14 and consisted of demonstrations on the various types of work by the different county demonstration teams. At the barracks the exhibits of work done by Juniors in the various lines of extension work were on display. In the afternoon at the college barns county stock judging teams judged cattle, sheep, and hogs in contests to select the superior live stock judges.

In the dairy cattle judging the team from San Miguel County was first with the De Baca County team second. The ranking of individuals from the dairy teams was as follows: Allie Thompson, Frank Herring, and Sidney Turner, De Baca Co.; Ellis Taylor, Lea Co.; Vondalee Page, Curry Co.; Eleanor Gill, Union Co. Each of these six juniors is to receive Hoard's Dairyman for one year.

Minnesota Club Winners

Out of the Minnesota Junior Live Stock Show held recently at St. Paul came two champions that Hoard's



JAY H. SEYMOUR AND HIS PIG

Dairyman Juniors will be particularly interested in, little 12-year-old Marie Sullivan, whose Shropshire topped a class of some 80 lambs, and Jay H. Seymour, club member-leader, who won the purple on Ascension Giant, a 420-lb. Chester White barrow.

Four dollars a pound is the record smashing price that Marie received for her lamb; this gave her a total of $448. Never before has the price of pork reached $1.00 a pound but that's what happened when the bidding was over on Jay Seymour's pig and he received a total of $420. Both juniors received several medals, ribbons, and trophies.

This is the third consecutive year that the lamb championship has gone to a Sullivan. Last year brother John won the honors and in 1922 brother Raymond was the winner. From their club work these juniors have built up a flock of 40 sheep.

"My brother gave the lamb to me for taking care of his sheep," says Marie. "It began to nibble clover when it was three weeks old. In the summer months I fed it oats, barley, corn, and a little cabbage, and let it run on fresh pasture. In the winter months I fed it clover hay, oats, and bran."

Jay Seymour has been a club member for seven years. He made the best record this year of any of the 200 older boys and girl entered in the leadership contest.

Jay fed his pig three times a day, gave him plenty of exercise, a hand-



MARIE SULLIVAN AND HER LAMB

ful of oil meal daily, fed him a mineral mixture in his slop and kept this mixture of 40 per cent ground limestone, 20 per cent salt, and 40 per cent bone meal in a little box to which the pig had free access. Jay trimmed the pig's feet twice.

In the 117 days that the pig was entered in the contest he made an average daily gain of 2.47 lbs. During this time he ate 368 lbs. ground oats, 480 lbs. ground barley, 585 lbs. corn, 45 lbs. oil meal, and 351 gallons skimmilk.

Says Jay, "I chose the Chester White because their color suggests cleanliness and makes them appear prominent. I chose this pig out of a lot of 94 because he showed more desired type, looked more promising, and was sired by good stock."

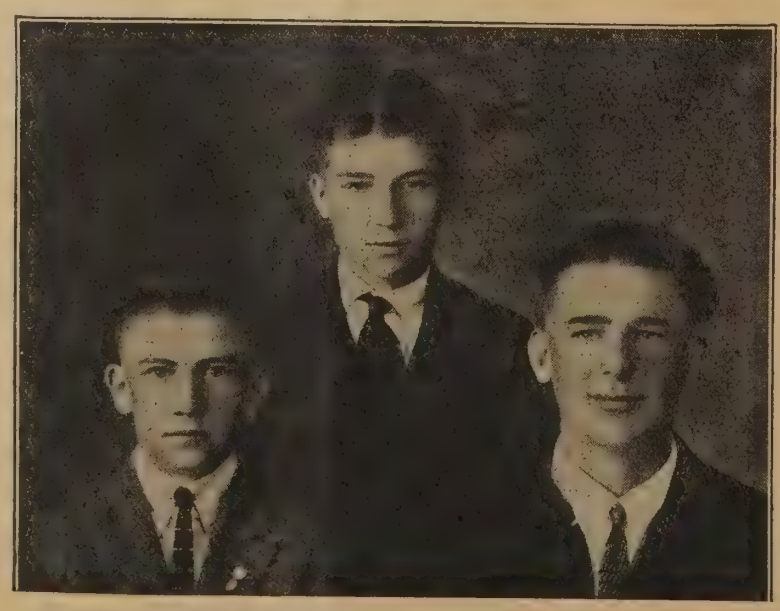
Expert Junior Dairy Judges

Winning first in a state-wide dairy judging contest for Smith-Hughes agricultural students in Illinois was the honor given Avery Vose, Kenneth Clark, and Emil Martens representing the Warren Township high school, D. W. Thompson principal. The boys judged Holstein, Guernsey, Jersey, and Ayrshire cattle.

Avery Vose, age 15, made the highest score of any member of the team and was third in the state. Besides dairying, Avery is especially interested in hogs and had his litter entered in the Ton Litter Club.

Kenneth Clark, 18 years old, is another hog "fan". Kenneth has sold several of his hogs to advantage through private sales.

Emil Martens, 17 years old, has a poultry project. He built his own hen house and purchased twenty Barred Rocks. The money for this he earned on a previous oats project.



WINNING WARREN TOWNSHIP HIGH SCHOOL DAIRY JUDGING TEAM
Left to right: Kenneth Clark, Emil Martens, Avery Vose. They were coached by R. H. Pattison.

Successful Sandy Berry

Sandy Berry, fourteen-year-old club boy of Texas, received the challenge and accepted it.

A year ago Sandy started in club work with a grade Jersey calf. He wanted a pure-bred, however, and set out to get one. He had a pure-bred pig and handled him so successfully that he won $53 in premium money. This made it possible for him to purchase the pure-bred Jersey calf which he is now raising.

Sandy's latest accomplishment is to win first in a judging contest with fifty mature breeders. That's what club work has done for Sandy.

The success of Sandy's club work and that of his older brother has convinced their father of the value of pure-bred animals. They are now beginning to breed on the home farm pure-bred pigs and pure-bred Jerseys. More power to you, Sandy.—American Jersey Cattle Club.

South Carolina Club News

Over 2,000 South Carolina club members learned about better agriculture at 4-H club camps this year, according to The Carolina Club Boy.

Lancaster County again held a very successful calf club exhibit with more than 30 Jersey calves competing. You will recall that on the Junior page of the August 22 issue a report of the first showing of this club was made. There were sixteen calves competing; this year the number was almost doubled.

Furman Hammond, who won first with Oxford's Robbie as a calf at th former show, again won a blue rib bon and senior champion on her as senior yearling. Woodrow Wilso won grand champion on Fern's Kitt C. G. Cushman and W. J. Keega extension specialists placed the rib bons.

Brown Stevenson captured highe honors in county, district, and sta judging contests. Gist Farr mad the highest score in judging dai cattle.

Junior Wins Again

How many of you juniors remem ber Carl Alt? He's a Wisconsi member of our club and had a lett and picture published in the Marc 28 issue of Hoard's Dairyman.

Now he writes us that Lassier Vi let, the heifer whose picture wa published, has a record of 7,846 lb milk containing 376.2 lbs. of butte





Here are two Jersey calf club enthusiasts, Carl Alt and his brother, Curtis (top), Wisconsin, with their winners.

fat. He won first on a senior Jerse calf, Rosabel, and his brother Curti age 6, won first on a junior calf i both open and club classes at thei home fair, making $20 each in priz money. There were 20 calves entere in the club classes.

Bankers Back Club Work

More than twenty banks in eleve of the counties employing junior ex tension leaders in New York Stat are definitely sponsoring clubs amon the boys and girls of their territorie The plan is for the bank, aiding th county leader, to help get improve seed, eggs, or live stock, under a de ferred payment plan to the boys an girls enrolling. The leader supervise during the growing season. In the fal at an exhibit and achievement day prizes are given by the bank, and dinner and entertainment are ar ranged. This program is usuall set forth at the beginning of the sea son through a printed circular.

"Nothing has been of greater valu or proved more interesting to me th past five years than raising dairy calves," says Fred Kypke an "ag" senior in Waterloo (Wisconsin) high school. "Each year I have raised a young calf and keeping careful rec ords, have learned the real expens and work required to raise a calf."

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Articles in the December 5 issue of Hoard's Dairyman give a further discussion of the following:

What may co-operative marketing accomplish? It will help the farmer secure a better price for his products and a certain amount of control over his market.

Where were the first co-operative live stock shipping associations established? In Minnesota and Wisconsin in the year 1908. By 1922 there were fourteen terminal co-operative selling agencies.

Give a brief account of the Aberdeen Centralized Creamery. Since its organization, July 29, 1914, this creamery has sold a total of 11,525,000 lbs. of butter, or about a car and a half per week. The present building was erected in 1920, and cost $175,000. More than 4,000 farmers have benefited by pooling their cream and milk in this plant. It has made a better market for cream. Ice cream and egg departments have recently been added.

Tell about the "town and country" partnership in New York. In 1917 George F. Johnson, wealthy and philanthropic shoe manufacturer, started a public market in Binghamton, a city of about 74,000 population, for his workers. Last month there were 933 farmers on this market.

What is F. B. Morrison's advice to dairy farmers? (1) Cull your herd and get rid of the boarders. (2) Feed your good cows good rations. (3) Do a little figuring and try to feed as economical a ration as possible.

Give a good concentrate mixture to feed with plenty of alfalfa, or soy bean hay, and corn silage or roots. (1) 500 lbs. each of ground oats and corn. (2) 500 lbs. each of ground barley or rye and ground oats. (3) 600 lbs. ground corn and 400 lbs. wheat bran.

This Little Pig Went to Market EARLY

Because



from the day he was born he had a sanitary, comfortable and healthy raising. He was only one of a large family reared in a Natco Hollow Tile Hog House.

A Natco Hog House can be erected at a low cost. There is practically no upkeep expense ever after. Air channels in the walls and floors assure constant interior comfort in all seasons. The glazed inside walls are easily cleaned and permanently sanitary.

Our Free Farm Building Book

illustrates and describes Natco Hog Houses, Silos, Barns and other economical hollow tile farm buildings. Write for it.

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Junior Letters

Climbing the Club Ladder

Hoard's Dairyman Juniors:—This was my second year in dairy calf club work. Our cow tester, Harry S. White, started the Houston Dairy Calf Club and I wanted to join.

I traded my last year's heifer to papa for a young calf from one of our best cows. She was a grade, as we have no pure-bred females.

I started to care for her and keep record of her feed on March 1. Then she was two months old and I fed her three times each day. She was getting 16½ lbs. of skimmilk, 2 lbs. of grain, and all the mixed hay she would eat. I gradually increased her grain and hay till in July she was getting 6 lbs. of grain and 6 lbs. of hay per day in three different feeds.

I always weighed her feed as that is the only way to know just how you are feeding



CECIL BERG AND HIS CALF

and I think that is very important. I also kept her milk bucket clean. Her grain ration most of the time consisted of 400 lbs. corn and cob meal, 500 lbs. ground oats, 300 lbs. bran, and 100 lbs. oil meal. She had clean, fresh water before her at all times.

Every day I led her out and brushed her good and then I rubbed her with my hands. I also used a flannel cloth with a little olive oil on to rub her with. I started to keep a blanket on her the middle of July.

About a week before the local show at Houston I had her clipped all over the body and the evening before the show I polished her horns and hoofs and braided her tail. I was awarded first prize in the grade Guernsey class and the next week at the County Fair I won the trip to the State Fair.

While at the State Fair I stayed at the University Farm and I would go down to the fair grounds real early in the morning so as to feed and groom my calf before the great crowds of people came.

The grade Guernsey calf class was judged Wednesday and I was very happy and proud when I received the blue ribbon and was awarded the reserve championship.

I have learned a great many things about raising calves these two years and it is my favorite occupation. I am now ten years old and hope I can be a member of some club until I am too old. I shall try to do better every year.

My address is R. No. 2, Caledonia, Minn.
Cecil Berg.

Parents Came From Island of Jersey

Hoard's Dairyman Juniors:—It was delightful to see your article about Jersey in the junior department as our parents and eldest brother were born there and knew all the places photographed.

We have had many delightful times this summer. On May 24th we had a May Queen festival. On the May Day the queen is crowned by the retiring queen after she makes her retiring speech and then the new queen makes her speech. After that, Maypole dances and sports and games with all kinds of good things to eat supplied by the ladies, gives us a great time. We also had a picnic at school, breaking up for summer vacation, this year. Our brother, who is secretary of a dairymen's organization, co-operated with the school teacher and got the dairymen to help buy the ice cream and they supplied it in unlimited quantities, free. Don't you think that a good idea? And then other residents contributed for races and other expenses and altogether we had a very delightful time.

We would like to correspond with juniors of 12 years and over and would exchange ideas about our different localities. Next time we write we will tell you about our beautiful Fraser Valley and its glorious climate. Our address is Box 121, Haney, B. C., Canada.
Rhoda, Philip and John Pallot.

The Cold Pack Canning Method

Hoard's Dairyman Juniors:—Canning is as much an essential in home life as cooking or sewing. It is a great help to anyone. The steps of the cold pack method are as follows:

1. STERILIZATION OF JARS, RUBBERS, AND COVERS—Put about 1 gal. of water on the stove in a kettle or dishpan, and let it boil. When it is almost boiling, put in your jars, covers, and rubbers, and sterilize for ten minutes (they may be left in the water so as to be hot).

2. PREPARATION OF PRODUCT—Put enough water in a large can, boiler, or canner to cover all the jars when they are in it. Let the water boil and keep it boiling while it is waiting. Also place about 1 gal. of water in a kettle for the blanching process. Prepare the product you are canning by washing and paring.

3. BLANCHING PROCESS—Place the product in a wire mesh basket or cheese cloth and place it in the blanching water to blanch. Blanch the product until it is a little softened. Lift it from the water, let it drain and put it into a pan of cold water then pour off the water and take a large tablespoon and pack the fruit in jar. (Do not use the fingers as it is unsanitary). Pour on the hot water or syrup and stir the syrup on top of the fruit by using a teaspoon. Place rubber and cover on jar and partially seal. Place the can in the canner and process the required time. When it is done, take a cup or dipper and dip out part of the water. Take a cloth and lift jars from processer, invert and cool. When cool wrap in paper and store in cellar or cool room.

REMARKS

Required equipment for canning: 1 large tablespoon, 1 measuring spoon (for salt), 1 measuring cup, 1 wire mesh basket (or cheese cloth), 2 kettles, 1 processor, 1 paring knife, 1 pan or dish, 1 tea kettle (for syrup water), 1 stew pan (for syrup).

SYRUP

I find that a good, economical canning syrup for 1 pint of fruit is as follows: 1 cup sugar, ½ cup of water (hot for canning). In larger quantities, double the quantity of sugar and water.

SOME THINGS WE DO NOT BLANCH

Strawberries, cherries, raspberries, currants, grapes, tomatoes.

THINGS WE DO BLANCH

Peaches, pears, apples, gooseberries, carrots, beets, spinach, greens, apricots, prunes, cranberries, rhubarb, pineapple.

My address is R. R. No. 2, Stewartville, Minnesota. Elva Gardner.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

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RADIO



IF FATHER'S gift is ATWATER KENT Radio the gratitude of the family will only be surpassed by their sheer delight.

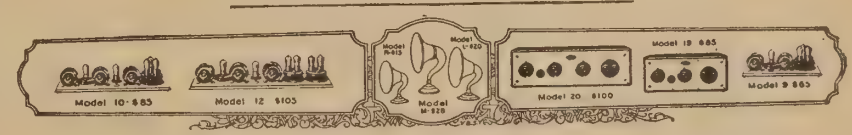
Night after night ATWATER KENT Radio will faithfully serve you. By simply turning the dials, it will put you in touch with the outside world—it will bring you news, music, sermons, lectures and plays—the best from everywhere—clear and strong on the loud speaker, for all the family to hear.

Twenty years before the first radio broadcasting station was opened, the ATWATER KENT name plate on an electrical precision instrument was accepted as a mark of quality. True to this tradition, ATWATER KENT Radio combines engineering skill with exquisite workmanship and the finest materials that money can buy.

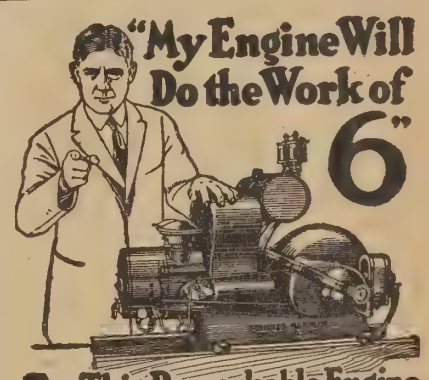
Any ATWATER KENT dealer will gladly help you in the selection of your receiving set and loud speaker.

ATWATER KENT MANUFACTURING CO., 4719 Wissahickon Ave., Philadelphia, Pa.

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Try This Remarkable Engine FREE

The Edwards Farm Engine sells direct to you at low factory price. No other engine like it. 1½ to 6 H. P. in one engine. Change power while running. Efficient at all powers.

Fits Every Farm Job

Pumps, saws, grinds, cuts ensilage, runs spray rig, concrete mixer, washer—anything up to 6 H. P. Portable. Burns kerosene or gasoline. No cranking. All moving parts enclosed. Work it anywhere without fastening down. Endorsed by thousands of users.

Clarence Rutledge, of Ontario, says: "Have given my Edwards four years' steady work and like it fine. Runs 28-inch wood saw, 8-inch grinder, ensilage cutter and does all chores. Have had ten other engines. The Edwards beats them all." Write now for full description of Edwards Engine, low factory price and details of free trial offer.

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For Special FREE TRIAL Mail Coupon Now

EDWARDS MOTOR CO.
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Without obligation, send complete description of engine, also free trial offer.

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Results from study of our CORRESPONDENCE COURSE IN DAIRY HERD MANAGEMENT and help given in solving your herd problems. Course approved by New York State Board of Education.

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SPECIAL OPPORTUNITIES

WHERE BUYER AND SELLER MEET



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

For Sale—My entire herd of 70 high grade Holsteins, own raising. Must sell at once. Bargain. Would exchange for high grade Guernseys T. B. tested. Am going in the bottle milk business. MEURER'S STOCK FARM, Genoa City, Wis. 20-*

For Sale or Trade—Two 1000 yearly record bulls for grade or pure-bred cows. OSCAR WESTERHEIDE, New Douglas, Ill. 20-*

Registered Holstein bulls and heifer calves. Homestead and Matador breeding, $30 and up. O'CONNOR BROS., Watertown, Wis. 21-6

Holstein Bull Calves from large dams. Cheap. Herd under federal supervision. FARMOSA FARMS, Garden City, Missouri. 21-4

Western Dairyman—for sale, one hundred seventy-five high grade Holstein cows and heifers. Seventy-five dollars carload lots. WILLIAMS BROS, Lamar, Colorado. 21-6

For Sale—4 young registered Holstein cows, fresh soon, also 2 calves. FRANK STONE, Kewanee, Ill.

Holstein springers and fresh cows in car lots. W. STRAUSS, R. 5, Watertown, Wis. 22-2

Registered Holstein female calves, Ormsby and Homestead breeding, one to eleven months old. Clean herd. Price right. M. E. HOLCOMB, 374 Hanover St. Milwaukee, Wisconsin. 22-2

Holsteins—Splendidly marked, high grade heifers, 6 weeks old, $20.00 each, shipped C. O. D. Registered bull calf given free with 10 head order. E. HOWEY, 1092 James, St. Paul, Minn. 22-2

Registered Holsteins, bulls and females. Ormsby breeding. EMIL HEINZ, Owatonna, Minn. 22-2

Registered Holsteins—Springing heifers and cows bred to thousand lb. Homestead sire. Accredited. WINCOWIS FARM, Neenah, Wis. 22-4

For Sale—Advanced Registered bull, fourteen per cent May Rose blood. Good individual, sure breeder. ROBERT HARGROVE, Roberts, Wis. 20-spl

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Carload heavy springing Guernsey cows for sale. SHAMBEAU & KENYON, Waupaca, Wis. 10-13

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

City View Farm offers for sale Guernseys, male and female, of all ages; May Rose Langwater breeding out of good A. R. dams Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 20-*

Grade Guernseys—Tuberculin tested. Carload of springers for sale now. Select what you want from my herd. LEE BURLINGHAM, Dousman, Wisconsin. 20-spl

Fifteen registered Guernsey cows and heifers. Bred to a son of Cherub's Prince. For prices write INLAND DAIRY FARM, Little Falls, Minn. 22-2

Write for sale list of 11 Registered Guernsey bulls, 2 to 12 months, 6 have dams and grandams with A. R. records averaging 732 pounds fat. Accredited herd. HOMER RUNDELL, Livingston, Wis. 22-*

Twenty Ayrshires Accredited herd. FOREST EWERS, Richland Center, Wisconsin. 22-2

Pure-bred and high grade heifers and calves for sale. Also high grade Guernsey cows. A. B. RAYBURN, R. 3, Litchfield, Minn. 20-3

Serviceable Jersey Bulls. Hood Farm Breeding. Record dams. $100. Accredited herd. RALPH CONSTANCE, Waupaca, Wisconsin. 21-4

STOCK WANTED

Wanted—Thirty high grade Guernseys, young and T. B. tested. State best cash price; must be a bargain. MEURER'S STOCK FARM, Genoa City, Wisconsin. 20-*

Wanted—Easy milking Guernsey, not over 6 years old. Record must show production of ten thousand lbs. or better of milk, testing not less than four. Quote prices and particulars. F. C. MEYERS, Edgerton, Wisconsin.

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

For Sale—Registered Collie pups 2 months old. HERMAN KING, Sweetser, Indiana. 21-2

SWINE

Duroc boar and sows for sale. PHILIP LEHMER, Princeton, Wisconsin. 22-2

POULTRY

Pure Bred Toulouse Geese, mammoth size. NELLIE CAVANAUGH, Neshkoro, Wis. 19-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

Alfalfa Hay For Sale—Write for delivered price, ALBERT MILLER & COMPANY., 192 No. Clark St., Chicago, Ill., or call our representative LaCrosse, Wisconsin. Telephone 851-A. 19-*

First cutting baled alfalfa hay cured in cocks under cover in field. Price $21.00 per ton. F. O. B. Fort Atkinson. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 21-2

NURSERY STOCK

Apple trees, true to name, northern grown, 2 year; Delicious, Famuese, McIntosh, Greening, Salome, Strawberry and Raspberry plants. C. R. TUTTLE, Baraboo, Wisconsin.

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

TOBACCO

Homespun Tobacco—Chewing five pounds, $1.50; ten, $2.50; smoking, five pounds, $1.25; ten, $2.00; pipe free, pay when received, satisfaction guaranteed. CO-OPERATIVE FARMERS, Paducah, Ky. 19-4

Homespun Tobacco—Chewing five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied UNITED TOBACCO GROWERS, Paducah, Kentucky. 20-4

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50. Smoking, 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and receipe free. FARMERS UNION, Paducah, Kentucky. 21-4

Tobacco—Three year old leaf. 8 lbs. chewing, $2.60; 8, smoking, $2.20; 8 second smoking, $1.40. Pay for tobacco and postage when received OLD HOMESPUN CO., Hawesville, Ky. 22-4

SEEDS

Pure Grimm and Cossack Alfalfa seed, our own raising, hardiest and best. Send postal for samples and folder giving full information. TRIANGLE RANCH,, Cottonwood, South Dakota. 22-*

HONEY

Clover-Basswood Honey. New sixty gallon feed cooker. ELIAS FOX, Union Center, Wisconsin. 21-4

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

PATENTS

Patent-Sense—Free book for inventors seeking largest deserved profits. Write LACEY & LACEY, 753, F. St., Washington, D. C. Established 1869. 19-52

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—Three De Laval milker units, nearly new, good rubber. Bargain. WALCOWIS FARMS, LAKE GENEVA, Wis. 21-*

For Sale—Good used Hinman milker, also some extra units. Address BOX 374, Care Hoard's Dairyman.

For Sale—Two double unit Universal Milking machine pump, and piping all complete for 20 cows. Price $150.00. As good as new. GEO. BRINKS, R. 4, Zeeland, Mich.

Wanted—A churn that will work the butter. C. J. NEWBY, Carmel, Ind.

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep-lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accomodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Will make a fine Christmas present. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 21-3

Milkmen—Use Fiske's Loose Leaf Route Book. Write for description. P. BAKER FISKE, Attleboro, Massachusetts. 22-4

FARMS FOR SALE

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

"Wisconsin Opportunities—Free Wisconsin bulletins. Soil climate, crops. IMMIGRATION DIVISION, Wisconsin Dept. of Agriculture, Capitol 25, Madison, Wisconsin." 19-8

First reasonable offer takes the 1,250 acre farm. Has made over 100 bushels per acre. Good buildings, near town. Address owner, J. A. HINSHAW, Pleasantview Apartment No. 2, Kansas City, Missouri. 20-3

Beautiful Modern Farm Home, only $4300; 17 cattle and horses, hogs, poultry, fine lot new machinery, vehicles included; heavy producer on improved road close fine town; 175 acres, dark loamy fields, 35-cow spring watered wire-fenced pasture, est 1000 cds. wood, 75,000 ft. timber, sugar and furit orchards; excellent 7 room house with bath, hardwood floors, large basement barn, garage. Owner cannot operate, $4300 take it, less than half cash. Details pg. 25 big Bargain Catalog,, illus. money-making farms and business chances. Free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

For Sale or Rent—148 acre farm in Jefferson County, Wisconsin. Good buildings. A. M. Hull, Milton Junction, Wisconsin.

Come to Minnesota, the leading butter producing state in the Union, where clover is a weed and the dairyman is prosperous. Good land at low prices, easy terms. Free map and literature. OSCAR H. SMITH, Immigration Commissioner, Dept. 676, State Capitol, St. Paul, Minn.

220 acre dairy farm, all equipped, for sale or trade. Small payments down. Address BOX 367, Care Hoard's Dairyman.

220 acre dairy farm, well equipped, two concrete silos, permanent pastures, one hundred Jersey cows and heifers. Sell milk fifty cents gallon wholesale. Would consider partner. L. S. HARVARD, Live Oak, Florida. 22-2

Attention Farmers—Own your own farm in the heart of the Tennessee Valley, near Muscle Shoals, where opportunities are unlimited Mild winters, good markets close. I have 300 acres for sale at $25.00 per acre, easy terms, suitable for dairy, poultry and truck farming. Will sell as a whole or in small tracts For full information apply to owner. M. F. GILCHRIST, Courtland, Alabama.

For Sale—Farm equipped, hundred twenty acres, electric lights, concrete road, excellent location. H. M. CULBERTSON, Medina, Wisconsin.

Warm, Sunshiny Winter Days, combined with finest markets and ideal pasturing and feeding conditions, make dairying a pleasant and profitable occupation in the Elephant Butte irrigated district of New Mexico. No zero days, no blizzards. Long pasturing season, four or five cuttings of alfalfa, 12 to 20 tons of corn silage to acre. Highly successful co-operative association pays $3.50 a hundred for 4 per cent milk, returning to producer 64.8 cents of the consumer's dollar. For full information and illustrated folders address Dept. 101, FARM BUREAU, Las Cruces, New Mexico. 22-2

Mississippi Lands—Bargains in farm lands suitable for truck farming, dairying or stock raising. Address R. A. HOLMES, Owner, McComb, Mississippi. 22-2

Improved farm in Minnesota and North Dakota can be purchased on 34 years time on small cash payments by persons who have their own help, equipment and live stock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Railway, St. Paul, Minn. 22-*

FOR RENT

For Rent—Dairy farm, 432 acres. Located at city limits, Beloit, Wisconsin. DON VAN WART, Agent, Beloit, Wis. 21-4

For Rent on Shares—Dairy, hog and chicken farm, 80 acres. DR. ARTHUR G. CATT, Rensselaer, Indiana. 21-*

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Wanted—Married man to look after young stock and do some milking. State age, size of family, experience. Give references. Modern equipment. FOUR PINE FARM, Hinsdale, Ill. 21-2

Mail Service Employees Needed. For instructions write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 16-*

Wanted—Single man for barn work. Guernseys. State wages wanted, experience. References. SHOREWOOD FARM, Crystal Bay, Minn. 21-2

Firemen, Brakemen, for railroads nearest their homes —everywhere; beginners $150—$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 21-4

HELP WANTED

Wanted—Two young men. Must be good milkers clean habits and reliable. Position open at once Excellent wages and living conditions. GRUEL BROS, Hobart, Indiana. 21-

Mechanic Wanted—Would like to hear from some energetic young married man who knows machinery and electrical work, willing to run tractor and make himself generally useful, in this work on a farm. Give full information in first letter. BELL FARM, Coraopolis, Pennsylvania.

Wanted—An all around single farm hand on dairy farm. Milkers used. State wages and experience. L. F. HILL, Winchester, Ind.

Wanted—Housekeeper on farm. Route 3, Box 100 Auburndale, Wis.

Wanted—In Wisconsin working farm manager and wife, no children, between 28 and 40 years. Man must be thorough farmer and hustler. Wife to keep house and board 2 men. References. State experience fully. Position permanent. Wages $75.00 per month and accessories. Address JOHN HENRY, General Delivery, Chicoga, Ill

Wanted—Thoroughly experienced dairyman take complete charge modern fifty cow dairy. Must understand everything pertaining to operation successful dairy Splendid living conditions. Satisfactory salary. References required. Apply H. F. BARKDERING, Charleston, South Carolina.

Wanted—Married man, no children preferred, for general farm and dairy work. Wife to help in house. Must be refined and experienced. Steady employment, good wages, good home. MARIONDALE FARM, Genoa City, Wisconsin 22-*

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Position Wanted—Experienced dairy farm manager wants position on up-to-date dairy farm. Willing to take a real proposition on a profit sharing business. Thoroughly experienced in purchasing herds and erecting modern buildings. Now managing the largest dairy farm on eastern shore of Maryland producing certified milk. Address W. A. SIMPKINS, Salisbury, Maryland. 18-*

Wanted—Position as farm manager—no proposition too large—20 years experience in farm management and County Agent work—graduate of Wisconsin College of Agriculture (long course), experienced breeder of Holsteins. Have bred and developed some of the good cows of the breed. Capable of handling all branches of farming, including cattle, hogs, poultry, orchards, fruit and general field crops. American, age 40, married, salary and commission or straight salary. Address BOX 359, Care Hoard's Dairyman. 21-2

For a well qualified farm manager or herdsman, thoroughly experienced in all phases of the management and development of a herd of high class producing Holsteins, write at once to BOX 369, care Hoard's Dairyman. 21-2

Wanted—position as test cow milker, or general milker where milking machine is used. Address BOX 371, care Hoard's Dairyman. 21-2

Position Wanted as herdsman or milking test cows. 20 years experience all branches dairying. Single. Address BOX 375, Care Hoard's Dairyman.

Position Wanted—As herdsman or foreman on livestock farm. Experienced, married. Would consider equipped farm on share basis. Address BOX 376, Care Hoard's Dairyman.

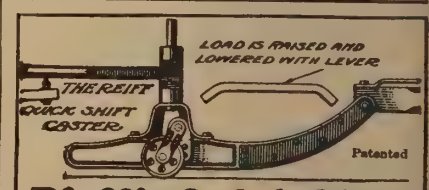
Have you a position open for a good herdsman? Fully understand Holstein cattle and development. Also understand good farming. Like to hear from Minnesota or California. Age 30, married, no children. Reference. Address BOX 373, Care Hoard's Dairyman. 22-2

Married Man with no tobacco habits. Good dry hand milker and stripper desires position. ANDREW LIVERETT, Goodlettsville, Tenn.

Single Man wants work on dairy farm or poultry farm. Age 23 years HOWARD McLAUGHLIN, Reasnor, Iowa.

Wisconsin Agricultural College graduate, single, desires position as herdsman or farm manager. Experienced with dairy cattle, retail milk business, hogs, poultry. Also posted on beef cattle and sheep. Can improve farm methods and expand business. Robert O. Blodgett, 370 River Boulevard, St. Paul, Minn.

Uncle Ab says it's only the good intentions that die which are used to macadamize the lower regions.



Rieff's Quick Shift Sleigh Caster

prevents all slipping, straining or falling of horses, when pulling-on or backing-off barn floors, bare ground or cement streets. Simple, durable, inexpensive. Fits any make of bob. Write for particulars, and guarantee.

DAIRY FEEDER CO.

Fond du Lac Wisconsin

Accredited Bulls

FOUR BULLS born Oct. and Nov. 1923 sired by grandson of May Echo Sylvia, whose five nearest records average 34.96 lbs. butter and from official record dams up to 23.46 lbs. butter. Extra good type.

PRICED FROM $75 to $125.

R. L. ANDERSON, Whitewater, Wis.

Public Sale - Brown Swiss Cattle

Registered and on Accredited List

27 Purebreds — Cows, Heifers, Calves and Bulls

DECEMBER 16th, 1924, SHIPSHEWANA, INDIANA

LEE L. YODER - - - LA GRANGE, INDIANA

SALE ANNOUNCEMENTS

Dec. 17—Holsteins. Consignment Sale at Berea, Ohio. Ohio Holstein-Friesian Ass'n., Mgrs.
Dec. 18—Holsteins. Dispersion of Roice & McQuate Herd at Wellington, Ohio.
Dec. 19—Guernseys. Dispersal sale of the Rundell & Nichalson herd at the Sales Pavilion, Livingston, Wis. Chas. A. Wilkins, Mgr.
Dec. 19—Holsteins. H. L. Dunbar's Dispersal, Wauseon, Ohio.
Dec. 20—Holsteins. Wauseon County Home Dispersal, Wauseon, Ohio.

Minnesota Ton-litter Contest

Results of the first state wide pig n-litter contest in Minnesota were nounced recently from the Uni-sity Farm offices of the committee-n in charge, H. A. Derenthal and ofessors H. G. Zavoral and E. F. rrin.

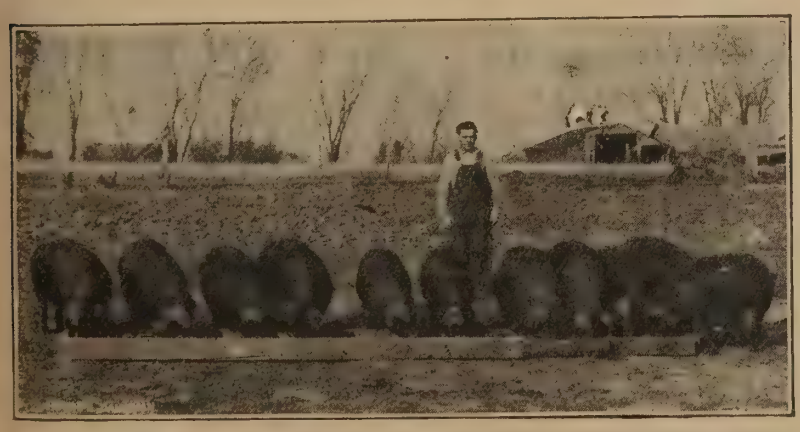
Clarence B. Kraft, a young farm- of Farmington, Dakota County, n the first prize money with a lit- of eleven high grade Durocs ich weighed 3,102.45 pounds at e end of the 180-day contest. John ese of Yellow Medicine County, n second prize money with a pure-ed Poland-China litter of fourteen ich weighed 2,796 pounds at the d of the six months. Gordon E. mmy, a junior live stock club boy Mower County, was third with his ter of thirteen pure-bred Chester hites which weighed 2,720 pounds. Two hundred fifteen farmers from counties originally enrolled in the ntest and 41, or almost one-fifth, ade a ton or more of pork from a ngle litter in the 180 days. The st 20 of the 41 will receive cash emiums, several hundred dollars ving been raised for the purpose. addition, different breed associa-ns will award purses and trophies. The weights of the 41 litters range om 2,008 to 3,102 pounds. The av-age weight was 2,332.8 pounds. The erage number of pigs in the litter as 10.7 and the average weight per g was 216.4 pounds. Five club boys d one club girl brought their lit-rs up to more than 2,000 pounds ch. A pure-bred Chester White tter of ten, raised by Grace Luch-nger, club girl of Washington Coun-, weighed 2,216 pounds.

The contest was organized and pro-oted by the Minnesota Live Stock reeders' Association, the Minnesota wine Breeders' Association, and the gricultural extension service of the tate University.

Mr. Kraft, who produced more an a ton and a half of pork in 180 ays, fed corn, buttermilk, and flour iddlings for which he spent $175.-2. Farmer Reese, winner of the econd prize, began preparing for he contest even before the pigs were orn. His litter of fourteen pigs was arrowed by a large two-year-old ure-bred Poland-China sow which ad been a prize winner at the Minne-ota State Fair. The sire was one of he good animals raised in the state ast year. Carefully planned rations ere fed the sow prior to farrowing nd while she was nursing the pigs. t six weeks of age the pigs were tarted on a self-feeder containing a ixture of two parts oat meal, two arts ground corn, and one part oil eal. They were weaned at eight eeks of age and for the rest of the eeding period were fed some skim-ilk and buttermilk and a grain ixture of two-thirds hulled oats and ne-third grown corn. Most of the time they were on good sweet clover pasture.

Mr. Zavoral, who had general supervision of the contest, says: "It has demonstrated that pure-bred hogs are the most highly developed machines to convert farm feeds into pork. Not one scrub litter made the ton contest, while grades did not do as well as pure-breds. Cross breeds showed up well for pork production."

"The original cost of each pig in the 41 litters averaging 10.7 pigs each was less than the cost of pigs from litters of four or five," Mr. Zavoral said. "This is one of the big factors determining profits in hog raising. The production of a ton or more of pork from one sow means more profit than raising the same amount from two or three in the same length of time."



The winning litter of pigs in the first Minnesota state wide ton-litter contest weighed 3,102.45 lbs. at 180 days. Bred and fed by Clarence B. Kraft, Dakota County.

Child Labor and Education

HOARD'S DAIRYMAN:—I just finished reading your editorial on the Child Labor Amendment. For years I have been studying this question of a national child labor law and I believe we do need the national law instead of just a state law. For there are many states which do not have a law good enough to take care of all the children.

But I agree with you that the amendment should not prohibit all labor under eighteen years of age but should read to "regulate the labor of children so that no child shall be deprived of his or her right to attend school up to eighteen years of age". The right to work before and after school hours and during vacation should not be taken away from any child whether he lives in town or country.

Our own school law of this state is not drastic enough to insure a child enough days in school so that he is sure he can pass from one grade to another. We saw that worked out in our own district last year. A really bright boy was kept at home so much and worked so hard that while he had 120 days in the school room he could not pass.

And this year the Russians have worked their children in the beet fields—just little boys and girls of from 6-10-12 years old from early until late up until the 8th of November. These came from Nebraska and if we do not have a national law, how can such cases be taken care of?

I have long felt the need of having the age limit raised so that instead of being able to have the boys and girls taken out of school at fourteen and sixteen they would have to go on and in many cases that would mean a year or two in high school.

I cannot see how our country boys and girls are going to be able to put agriculture on a sure foundation and keep it there without more general culture than can be received in the eight grades of any common school. A farmer needs to know more of general topics along all educational lines than any other worker; also his wife. If we do not educate our boys and girls so, agriculturists in this country will become mere peasants. Many people think farmers will become that anyway. But it will be impossible to make peasants of us if we are well educated.

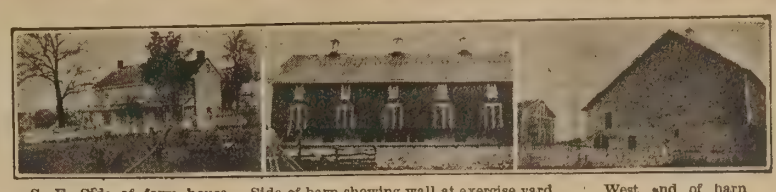
We had a family move into our tenant house last winter who came up from the far south—"poor whites" they would be known as down there. Their reason for coming north was that they wanted their children to have a chance to be educated. Down there, to make a living even seven-year-old Johnny and 5-year-old Mary had to work in the cotton fields all day so they could have something to eat or wear and school was held but three months a year, and that in the early fall.

So, again, it seems to me, we need a national law to make such states come to time. I could cite more instances but I have taken up enough space.

Right here I would like to say that I thought Mr. Wing's letter was a very good answer to his opponents. We must teach our children while they are on the farm the things money cannot buy but which we have in abundance. I never could blame the city man for getting out of the city and going to the lakes and woods for a Sunday outing. Then they can look up and out over large stretches of vistas and to the horizon of nature. This helps them to look up and beyond their pretty world when they get back to their city and work. Their horizon is so narrow when in the factory or at their desk, the country helps to give one a larger viewpoint. But I do wish the city man and woman could see that while we have this larger view of nature there is much we do not have that they do.

As I have said before, I do wish the common laborer without one cent invested would stop comparing himself with us, but compare the city man with thousands of dollars invested in a city business with us who have thousands invested in a farm, and here the comparison stops.

Wisconsin. MABEL HULL PAUL.



S. E. Side of farm house Side of barn showing wall at exercise yard West end of barn

FOR SALE

Valuable Real Estate and Beautiful Country Home Will be Sold at Public Sale, Thursday, Dec. 18, 1924

The farm and home to be sold, consists of 102 acres and 5 perches, located in North Annville Township, three miles northwest from Annville and four miles northeast from Palmyra, Lebanon County, Pa. Tre farm is bounded on the east by the Public road leading from the William Penn Highway to Bellegrove, only three miles from Annville, a college town, eight miles from City of Lebanon, eighteen miles from Harrisburg. The buildings consist of 2½-story, 8-room, stone house and 1½-story, stone, summer house. A large stone bank barn (that cost more to be built than the cost of the whole farm) good as new, with slate roof, wagon shed, chicken house and hog house. All buildings are painted and in very good state of repair.

The farm is divided into six fields all in a high state of cultivation, soil fertile, consisting of gravel loam and limestone soil; a lime kiln ready to burn lime is on the farm. Fruit trees consisting of apple, peach, cherry, plum, quince, pear, etc. A large number of black walnut trees are on the farm and ready to cut. A never failing spring of clear fresh water is located near the house.

This farm is suitable for dairy, poultry and vegetables. All have a ready market near the farm. The land is slightly rolling just enough to give the farm a real good view over the surrounding valley.

Trains and electric cars passing 1½ miles from the farm can be seen from the home yard. This is an ideal place to erect a large mansion or home for some one wanting to live near a good college town and within a short ride to the state capital. Two large mansions are located within sight of the farm. A home and farm of this kind is seldom offered at public sale but here is an exceptionally good opportunity to buy a home that will pay large returns on the investment.

At the same time and place there will be sold at public auction a complete set of farm implements, good as new, also live stock consisting of horses, mules, and Duroc hogs, chickens and turkeys and

22 HEAD OF HOLSTEIN CATTLE — Ten of these are Pure Bred

and consist of Welleson Hengerveld Alcartra, a granddaughter of the $50,000 Holstein bull, "King Segis Pontiac Alcartra", a 2-yr.-old bull, Clear Spring Ruth Sadie Vale; other good breeding individuals are Queen Silva Brookside, Model Burke of Baxter Run.

People coming by train will be met at Annville Railroad Station and taken to farm.

Sale catalogs can be had upon request. Sale to start at 12:30 P. M. when conditions will be made known by the owner.

Auctioneers—S. S. Bomberger, Levi Gilbert

Clerks—Harry G. Light, Morris M. Ellenberger. S. R. Miller, Sale & Pedigree, Mgr.

WAYNE LIGHT **HARBEL MANOR, OHIO**



Stop Backache Drudgery & Waste—

Pat. Pend.

Rieff's Silage Feeder

is accurate. *One* turn of the crank feeds *one* cow; one hopperful feeds 25 cows. Saves 1 to 2 hours back-breaking labor, daily. Nothing like it—*no* wear, *no* waste. *First cost is ALL.* Write for Facts, Testimonials and *Guarantees.*

DAIRY FEEDER CO., *Fond du Lac, Wis.*

Virginia Farms and Homes

FREE CATALOG OF SPLENDID BARGAINS.

R. B. CHAFFIN & CO., Inc., Richmond, Va.

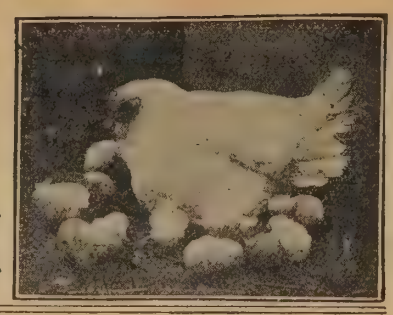
Ayrshires Win in London

A cable from London to the Ayrshire Breeders' Association office announces the winnings of Ayrshires over all breeds at the London Dairy Show, duplicating the sweepstakes victory in 1923 when the same highly prized awards—the Bledisloe Challenge Trophy and the Spencer Cup—were won by red and whites. Nine breeds competed each year.

The Bledisloe Trophy is offered for the best exhibit of cows, to be made up of the first six representatives of the breed in the milking trials. The Ayrshire score was 1,103 points of which 823 were won in the milking trials and 270 on inspection. The total score of the breed's closest competitors was 1,030.2. The Spencer Cup is awarded for the best dairy cow of the show by inspection, milking trial, and butter test. It went to Major C. Randolph Dudgeon on the cow, Cargonholm Sally 3d. This cow also was awarded the Barham Challenge Cup for making the highest score of all cows in the milking trials. —Ayrshire Breeders' Ass'n.

Tom Tarheel says that he and his wife have found that it's nice to keep some eggs, butter, and cream at home instead of trying to sell it all to folks in town.

POULTRY On The DAIRY FARM



Buy Your "Roosters" Now

"It is about time to think about buying our roosters for next year, mother." One dairy farmer made that remark recently and there is a great deal of truth in it.

Call them roosters if you will, but let's consider the proposition here as one of buying males or cockerels. With our improvement in live stock production we have passed by the "rooster" stage of poultry keeping. We now speak only of cockerels or males.

It's early yet—a long time until spring—why bother about next year's cockerels or males now?

The cockerel is half the flock. All the chicks hatched carry one-half the blood of the cockerel. If we place a good egg production cockerel in the breeding pen we will note the improvement in the laying qualities of the pullets. Since the average American hen lays 70 eggs per year and 100 eggs per year are required to pay expenses, we must breed and feed our pullets so that they will lay approximately 150 eggs per year. With pullets of that quality we may easily make a net profit of $2 to $3 on each pullet.

Male is Half the Flock

Since the male is half the flock we will want to choose very carefully the males we are to place with the flock The present time is the most favorable for the buying of the males, especially the pure-bred males. If possible buy a male from some breeder who knows how many eggs his mother laid by having trap-nested her When the flock is large pick those hens in the spring which are laying and have laid during the winter and mate the male with them.

Flock Improvement

If you have a flock containing all colors of chickens, decide which breed you want to keep and sell the rest Cross breeding does not pay since the birds produced are of different colors and weights, which does not make for a uniform product.

Just as improvement is being made in cattle production through the use of pure-bred sires and unmixed herds of cattle, there should be improvements made in poultry production You would not mate a Holstein sire to a Jersey cow—why then mate Leghorn cockerels with Rhode Island Red hens or vice versa?

Grading Up Brings Quick Improvement

To illustrate the effective results to be gotten from the use of pure-bred male on mongrel hens or on grade hens, W. A. Lippincott at the Kansas Agricultural Experiment Station ran a very interesting and educating experiment. Mongrel pullets were purchased and mated with a pure-bred cockerel whose mother had laid over 250 eggs. Part of the pullets were mated with a Mongrel cockerel to be used as a check pen.

The Mongrel pullets mated with pure-bred cockerel averaged 77.3 eggs each that year. Chicks were raised from them and the pullets from these chicks were mated to another pure-bred cockerel with dam's record of better than 250 eggs. These pullets averaged 155.9 eggs each which was a decided improvement over their mother's.

The pullets raised from this pen were again mated to a pure-bred cockerel of better than 250-egg ancestry. These pullets of the second generation averaged 188.6 eggs each and in the third generation these pullets mated to a pure-bred male of high product averaged 192.6 eggs each.

Summary

Resolve to grade up your flock.
Buy your pure-bred males now.
Keep a watchful eye on them to guard against injury.
These males can be used on next year's pullets. O. A. HANKE.

Posting

The internal organs of a fowl are so easily observed and most of the more common diseases are so readily recognized, that one should open every hen that dies to avoid a possible outbreak of some diseases. Knowing what is going on is easily worth at least half of the effort put forth in combating it.

Every fowl that dies should be a suspect. In a great many cases the trouble lies in the digestive tract or obstruction of some kind that is not dangerous. The assurance that one has in finding this to be true is well worth the short time devoted to the examination.

Most of the troubles are internal or are indicated by an internal condition. Such things as roup, colds, canker, or chicken pox are noted from an external examination but will often react internally at the same time.

Placing the fowl on a table with the breast up, an incision can be made from the point of the keel bone through the last ribs toward the wings. Grasping the keel bone, one can break the connections by pulling toward the head and will have the internal organs fully exposed.

In a thin, emaciated bird one will usually look at the liver, for in such cases, tuberculosis will be suspected. The liver will be covered with yellowish white spots that are easily seen. Tuberculosis will only be associated with a fowl that is thin. Where the spotted liver is found in an exceedingly heavy, fat hen it will usually indicate fatty degeneration of the liver.

A hemorrhage of any sort is noted by a blood clot near the heart or within the body cavity. Such things are not at all unusual in heavy laying hens, especially during the late winter and spring months when production reaches the peak. There is nothing to be done in such cases. The hens will appear perfectly normal in every way and the dead ones will be found where they have fallen from the roost or in the house. Such cases present no cause for worry and are part of the loss that one must stand in a heavy producing flock.

Various sorts of obstruction are often found. Most people do not consider that a chicken has a stomach but it will be seen as a slight enlargement just ahead of the gizzard. Fowls are found with an obstruction at this point or a fold of the intestines may become closed and prevent the passage beyond that point.

Worms of several classes are found in parts of the digestive tract. The most important kinds are the round worm and the tape worm which are found in the intestines or the caeca.

The caeca or the blind gut corresponds to the appendix of man. It appears as two pouches that are connected with the intestines.

Cutting a slit in either of these sections and removing some of the contents will allow one to see the worms. The round worms are rather small and only through their own movement can one see them.

In chicks, the possibility of pneumonia is common, especially during a cold spring. This disease is another condition that is easily identified by posting the chick.

While the lungs are ordinarily pink in color, pneumonia will cause them to become filled with pus and rather yellowish. This is about the only disease that affects the lungs as, even in cases of tuberculosis, a lung infestation is decidedly rare.

If one could devote just a little time to each fowl that dies, most of the causes could easily be discovered. There are relatively few diseases that are of paramount importance in the northern states. Some of the southern sections have more serious problems. If we could, by a united effort, rid the flocks of avian tuberculosis there would be more profit and less danger for the average flock owner.

J. B. HAYES.

Better Eggs

A rooster by perseverance rolled an ostrich egg into the chicken yard. He called the hens and said:

Now I'm not casting any insinuations or reproaching any of you hens, but I just want you to see what is being done in other places.—Everybody's Magazine.

New Life for Light Plants

Replace your worn battery with a UNIVERSAL. There's one to fit *every* make of plant—Delco, Alamo, Genco, Lalley, etc. We make a generous allowance for your old battery.



Sealed Glass Cell

UNIVERSAL "Nu-Seal" cells come to you *fully charged*. Nothing to do but hook up—it's easy and they are ready for a long life of work.

No Cleaning, Ever

Ample space below the plates holds all the sediment till battery is worn out.

There's a UNIVERSAL Battery made for every job requiring a storage battery—Automobiles, Tractors, Radio, Farm Light and Power Plants.

They have proven their dependability in over 20 years of service. UNIVERSAL Hard Plates is only *one* reason for their remarkably long, trouble-free life.

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A new UNIVERSAL "B" Battery for Radio! Now you can be assured of *constant* clear reception, steady voltage, a stronger, more even flow of current. No losing of stations—no fading reception. A full line of "A" Radio Batteries also. Write for catalogs.

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Write today for your copy of our 16-page instruction booklet on care of "A" and "B" Radio Batteries. The only book of its kind ever published.

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An interesting book, telling how to get best results from your farm light batteries. Every farm light plant owner needs it. It's free. Just ask for it! [733]

UNIVERSAL BATTERY CO.
3406 So. La Salle St., Chicago, Ill.

Tobacco that says "Merry Christmas" to pipe-smokers

A hint for those who take pride in giving "just the thing"

Evidently there is something about the good-will spirit of Christmas that makes pipe-smokers want to share their contentment with others

Each year a number of Edgeworth Club members make a practice of distributing their favorite tobacco among friends as a Christmas remembrance. In some cases Edgeworth happens to be the recipient's "steady" tobacco. In other cases the gift serves as an introduction to Edgeworth — in fact, we know of instances where it has created a rabid new member of the Edgeworth Club.



At any rate, over a period of years Edgeworth has apparently earned a reputation for being a very successful present for pipe-smokers. There may be a suggestion in that for you.

To supply the gift spirit to Edgeworth at Christmas time the makers have provided appropriate wrappings for the 16-ounce glass humidor jar and the 8-ounce tin. Each contains Edgeworth Ready-Rubbed. Each is packed in a good-looking decorated gift carton printed in colors. Prices—$1.65 for the 16-ounce jar. The 8-ounce tins are 75c each. Please ask your tobacco dealer for the Edgeworth Christmas packages. If he will not supply you, we gladly offer the following service to you:

Send us $1.65 for each 16-ounce jar, and 75c for each 8-ounce tin to be shipped, also a list of the names and addresses of those you wish to remember, together with your personal greeting card for each friend.

We will gladly attend to sending the Christmas Edgeworth to your friends, all delivery charges prepaid.

For yourself—It's just possible that you are not personally acquainted with Edgeworth. If that is so, send your name and address to Larus & Brother Company. We shall be glad to send you free samples—generous helpings both of Edgeworth Plug Slice and Edgeworth Ready-Rubbed.

Smoke a few pipefuls and judge for yourself whether or not you wish to become a permanent member of the Edgeworth Club.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Edgeworth Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound, and also in several handy in-between sizes.

For the free samples, kindly address Larus & Brother Company, 57 South 21st Street, Richmond, Va. If you will also include the name and address of your regular tobacco dealer, your courtesy will be appreciated.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one or two dozen carton of any size of Edgeworth Plug Slice or Edgeworth Ready-Rubbed for the same price you would pay the jobber.

Suggested Plans for Running Cows Loose

(Continued from page 665)

eet wide, across the end of the barn nd leaving the doors open from the arn into this shed. This method of ncreasing the floor space has been racticed very cheaply and satisfacrily on several farms.

A Novel Plan for Small Herd

Another plan is shown in Cut No. in which the barn is 26 by 40 feet. portion of the barn 11 by 40 feet, ot including the manger, is devoted the cows. Here they are allowed run loose and eat their roughage rom a manger which extends along ne feeding alley.

The most interesting feature in onnection with the keeping of this erd, is the way in which the milking done. The cows are all milked by ne man, and when milking time arives, the grain feed for the first cow s placed in the end of the manger. Cow No. 1 is always on hand to take er place and since she stands next he wall and the milker sits on the ide toward the rest of the herd, she s not disturbed by the other cows vhile eating her grain. As soon as he milk is drawn, it is weighed and poured into the strainer. While this s being done, Cow No. 1 moves away nd Co. No. 2 comes up for her grain. As the cows are not tied, no time is ost in changing them. It is surprising to see how quickly they learn to take their places in the same order. This is very important to the success of this method as it makes the milking time come regularly for each cow.

The plan first allowed only 33 square feet per cow. Later a shed 16 by 26 feet was added to the barn and they were allowed to run in this also, which gave them 65 square feet per cow, which is ample space.

Works Well in Round Barn

Cut No. 4 shows a simple plan of a round dairy barn designed so that the cows may run loose. With this method of housing, the cows may be placed in rigid stanchions at feeding and milking time. It must be distinctly understood, however, that rigid stanchions are strongly condemned as a cow tie when the cows are to remain in them all night, but if used merely to hold the cows during feeding and milking, they are both economical and convenient. Gates hung on posts at the outside wall and swung around to the manger are used to make box stalls when these are needed. The large doorway in the cow stable is closed by slatted gates, thus giving the cows an abundance of fresh air and sunshine on bright days, without putting them out in the yard when it is muddy.

The silo is in the center of the barn and the silage and hay chutes are in the feed alley, making it convenient for feeding. There is a small water tank inside the barn, supplied with a float valve, so that cows have access to water at all times.

Keep Our Factories in Wisconsin

MEN in industry, like others who are here, want to stay in Wisconsin. But here are the conditions which they must face:

1. Wisconsin factories, usually started from small beginnings, must now meet world-wide competition because 90 per cent of their products are sold outside the state.
2. Their fair returns are now cut down by higher taxes than paid in other states.
3. They are constantly threatened with yet higher taxes and restrictive laws like the compulsory 8-hour day and wage insurance for idle men.
4. They find, among many, an unfriendly and even hostile attitude toward Wisconsin industry.

This Is What Is Happening:

Wisconsin is becoming a state of branch factories and many of our industrial men are moving away. Call the roll in Kenosha, Racine, Milwaukee, Oshkosh, Kaukauna, Port Edwards, Superior and other industrial centers and you will realize the harm already done.

Our farmers, workers, merchants and all other Wisconsin citizens, are heavy losers when industry is hurt.

The Way to Make Wisconsin Grow

Make production on farm and in factory pay at least as well as in other states. It cannot be done with more burdensome conditions here than exist elsewhere.

Sound business judgment, and not politics, will make Wisconsin grow.

Send for free booklet: "The Story of Wisconsin"

WISCONSIN MANUFACTURERS' ASSOCIATION, Madison, Wis.

THE COMMITTEE IN CHARGE OF THIS "FORWARD" PROGRAM IS:

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FARM AND FACTORY MUST PROSPER TOGETHER

National Dairy Association Year Book

The National Dairy Association has just recently published a 170-page year book, the contents of which will be of great interest and value to the large numbers of people who have contributed to the development of the dairy industry and more especially those who have participated in the affairs of the association since its charter was issued in 1905.

In order to give readers of Hoard's Dairyman a full conception of the scope of this book we are thus calling attention to it. Following is the information given:

A history of the National Dairy Association from 1905—1922; the Ayrshire grand champions from 1910—1922; the Brown Swiss grand champions from 1910—1922; the Guernsey grand champions from 1906—1922; the Holstein grand champions from 1906—1922; the Jersey grand champions from 1906—1922; the judges and superintendents from 1906—1922; the exhibitors of dairy machinery, equipment, and supplies from 1906—1923; the dairy products awards from 1913—1922; the college students' dairy cattle judging contest awards from 1908—1922; the college students' dairy products contest awards 1908—1922; the boys' and girls' dairy cattle judging contest awards, 1919—1922; the boys' and girls' demonstration contest awards, 1922.

A complete report of the 1923 Dairy Exposition is also given and includes the following:

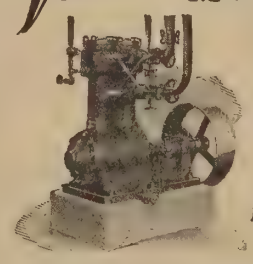
Story of the 1923 exposition; superintendents, judges, and committees in charge of departments; breeders' roll of honor; list of cattle exhibitors; dairy cattle awards, all breeds; grade cow awards; calf club cattle awards; herdsmen's contest awards; college students' dairy cattle and dairy products judging contests awards; boys' and girls' cattle judging and demonstration contests awards; vocational school students' dairy cattle judging contest awards; dairy products awards.

The first edition is nearly exhausted, only 100 copies remaining available. A second edition is contemplated. The price of the book is $2.00. Interested parties should write to W. E. Skinner, secretary National Dairy Association, 910 So. Michigan Ave., Chicago, Ill.

Farmer: "How did ye come by that black eye, Jarge?"

Jarge: "Ole cow had a way o' flickin' me face wi' her tail, so I tied a brick onto it."

Vilter Ice Machinery



For Dairies and Creameries

Send for BulletinNo.29R It is FREE

THE VILTER MANUFACTURING CO.
874 Clinton. St. Estab. 1867 MILWAUKEE, WIS.

Dehorn with the Keystone





Dehorn your cattle in the modern humane way. No crushing—a single stroke does the work. Dehorned cows and steers are gentler and safer.

The Keystone is sold on a money-back guarantee. We also make Keystone Bull Staffs. Write for circular.

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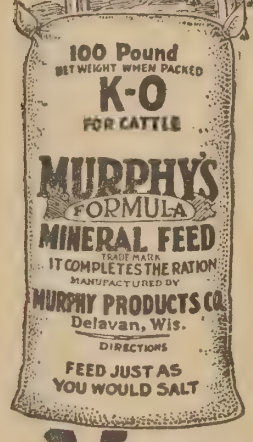
More Than a "Salt Lick"

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No—it was a simon pure *mineral* lick.

All "Salt Licks" were uncovered prehistoric deposits of fish bones, sea weed, sea salt and other minerals left there millions of years ago when the water receded from this continent.

No wonder the deer and buffalo travelled miles to reach these licks. From them they got calcium, phosphorus, iodine, sodium, chloride, etc. All were invaluable in building strong, healthy, rugged animals—the same elements we recommend and use in our feed.

Mineral feeding is not new—it is thousands of years old. In feeding Murphy's Minerals you are supplying Nature's own mineral balancer. Murphy's Mineral Feeds are the most digestible by actual test. Judged by results they are the cheapest.



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MURPHY'S MINERALS

A Christmas Present

For Your Friends, Neighbors and Employees

No need to bother yourself any longer about that present you are going to give to August, Frank, Vic or Charlie

Two dollars will buy one of our new revised pocket herd books. Just what they will appreciate. It is about 3¼" by 5¼" in size and contains pages for herd of 100 head, sire, dam, records, sketch, etc., as well as service records, gestation table and blank pages for notes. Loose leaves and bound with good leather.

A pocket herd book comes in handy very often and frequently at odd moments. You never know when you are going to be asked for a description of the dam of your best bull calf, her exact record, etc.

Order a copy right now — $2.00 postpaid

Hoard's Dairyman Fort Atkinson, Wis.



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ANTI-COW KICKER

Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

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with **Dumping Caldron.** Made of the best cast iron, surface very smooth, extra thick bottom, simple, quickly understood, convenient, no dipping out, emptied in one minute. Water jacket prevents burning. Keeps live stock in thrifty condition.

We make 23 sizes and kinds of stock food cookers.

Also Dairy and Laundry Stoves, Water and Steam Jacket Kettles, Hog Scalders, Caldrons, etc. Write us. Ask for our illustrated free catalogue J.
D. R. SPERRY & CO., Box 13 Batavia, Ill.

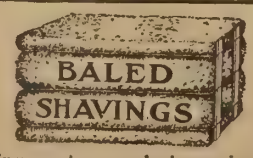
SPOHN'S DISTEMPER COMPOUND

Don't take chances of your horses or mules being laid up with Distemper, Influenza, Pink Eye, Laryngitis, Heaves, Coughs or Colds. Give "SPOHN'S" to both the sick and the well ones. The standard remedy for 30 years. Give "SPOHN'S" for Dog Distemper. 60 cents and $1.20 at drug stores.
SPOHN MEDICAL CO. GOSHEN, IND.

LOWELL'S COW CLEANING PRESCRIPTION



Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It relieves GARGET, BLOAT, CONSTIPATION and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1.00 a package.
Mfg. by LOWELL BLAISDELL & CO.
NORWOOD PARK, :: CHICAGO, ILL.



For bedding most convenient, serviceable and sanitary. Write for prices.
Jagerson Fuel Company, Neenah, Wis.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

That Alien Red Calf

We saw in a previous article that there is no truth in the theory that a previous impregnation leaves an impression upon the womb which may cause subsequent offspring to be "marked" like the previous alien sire. It will now be of interest to consider the similarly prevalent belief that off-color in a new born calf is proof positive that either the sire or dam must be of impure breeding. That belief has also been proved erroneous and a suit to establish a contrary opinion would no longer be liable to succeed were expert witnesses employed to give evidence.

Our pure breeds of cattle have been established by prolonged, repeated selection and mating of anials of like kind, type, or character. The animals employed in such mating have, however, necessarily been composites in blood, representing multitudes of ancestors of varying color and character. Time is too short in a few generations perfectly to breed out the influences of these previously existing characters. They may be successfully hidden, cloaked, or covered up so that not a trace of them is apparent to the eye; but they are there, nevertheless, in some representative or other of the breed, or possibly to some extent in all of them. Just as "murder will out" so any lost character of a remote ancestor suddenly may recur in a newborn animal of pure breeding. That happening is termed an evidence of "atavism", while similar reappearance of the character of a comparatively recent ancestor correctly may be termed "reversion". To illustrate, it may be said that recurrence of extra hoofs in a modern foal, whose ancestors some millions of years ago had five toes, is a good evidence of atavism, while appearance of rudimentary horns, or "scurs", in a calf of a modern polled breed is an evidence of reversion to the character of a comparatively recent ancestor. The red color of a calf from a solid black cow, of a pure black breed, or black and white breed, sired by a bull of solid black or black and white color of the same breed is simply an evidence of reversion or "casting" or "harking" back to the red color of a previous ancestor of as pure breeding. It cannot be taken as proof that a sire, for instance, bought as pure-bred and pedigreed and recorded as such, is in fact a grade, nor is the sire necessarily to blame for the off-colored calf. The dam may be at fault. In corroboration of these assertions let us quote the following condensed explanation of the problem published by Dr. Leon J. Cole, the eminent expert in eugenics of the Wisconsin Agricultural Experiment Station:

Red or red and white calves occasionally appear in black or black-and-white breeds of cattle. In the mating of black and red the offspring are black; that is, black is dominant and red is recessive. Red calves appear only when both parents are red; when one parent is red and the other is black, but carries red from some ancestor; or when both parents are black but carry red, as is the case when red calves appear in pure-bred black breeds. The chance is one in four that a red calf will be produced when two blacks carrying red are mated. The cattle of the Holstein-Friesian breed were largely red up to 1750. When black and white cattle from Jutland were introduced into Holland that color became the more popular. Red and white cattle are still common there and are, in Friesland, registered in a separate section in the official herd book. Red and white calves cannot be registered in the American herd book. Both pure-bred parents are equally to blame for the throwing of a red calf in a black breed. Adoption of breed standards gradually produces uniformity, but recessive characters, such as red color in black, or black and white breeds, are carried as an undercurrent for many generations. Inbreeding is especially liable to bring the undercurrent red to the surface. For full particulars see Bulletin 313 of the Wisconsin Experiment Station at Madison.

Scours

Kindly send me information as to the best way to prevent and cure scours in calves.
Oxford, N. Y. J. R. H.

You should have stated the age of the calves. If the scouring occurs just after birth and proves fatal in a majority of attacks it is germ-caused calf dysentery, commonly called "white scours" or "calf cholera". The infection is present at birth or soon contracted by way of the navel or mouth. There is no certain medicinal remedy but the disease may be prevented, with a fair degree of success, by having each calf immunized at birth with a serum or bacterin antagonistic to the infection. Consult the local graduate veterinarian about that treatment. It is also necessary to saturate the stump of the calf's navel, at birth, with tincture of iodine. Dust it with powdered starch, and also cleanse and disinfect the cow's teats before the calf nurses. Provide a new sanitary calving pen and a similar calf pen. Fully supply the pregnant cows with a balanced ration and minerals. If older calves scour start treatment with a dose of castor oil in milk and then give ½ to 1 teaspoonful of mixture of 1 part of salol and 2 parts of bismuth subnitrate in a little water every 3, 4, or 6 hours according to age of calf and severity of attack. Triple sulpho—carbonate tablets are also effective. Scrupulously cleanse, scald, and sun dry all feeding utensils. Feed skimmilk blood warm (100 degrees F) after removing separator foam. Make calves drink slowly.

Goiter

I have a valuable heifer calf 3½ months old that has not developed according to the care he got. The 4 first days after he was born he breathed very hard and seems to suffer for passage of urine. I thought he would die any moment. He recovered some and started drinking but has always kept thin. The other day I noticed a soft swelling under the throat. It is not sore or tender except when I squeeze so hard that I squeeze the throat.
Cambridge, Minn. A. P.

It would seem from your description that the thyroid gland is enlarged, constituting goiter. If that is the case the proper treatment would be to give the calf two grains of iodide of potash once daily in water for 3 or 4 weeks, and to clip the hair from the lump and apply tincture of iodine 2 or 3 times a week. Feed well on milk, oats, bran, oil meal, and good clover or alfalfa hay. If the swelling is dropsical, however, and not due to goiter the treatment here prescribed would not be appropriate as bloodlessness (anemia) would be the probable cause of weakness, thin condition, and the enlargement. It would, therefore, be best, if possible, to have an examination made by the local graduate veterinarian.

Lady—"You talk like a gentleman, sir."

Tramp—"Yes, ma'am. I'm related to royalty. Wunst I was stung by a queen bee."

Kipling's Six Men

(Continued from page 664)

nember of the county board with us. have learned in today's trip that here is more to farming than corn nd hogs. The men and boys we met re looking out and up. They seem o have enthusiasm and vision. They re satisfied."

The projects mentioned were only few of the many outstanding ones hown us by the county agent. Many inds of problems come to his office. 'Come out and tell me whether I hall cut my red clover for hay or let t run for seed." "When shall I do ny next spraying?" "I have a drain- ge project. When can you run he lines for me?" Yes, and a hun- ired more problems such as these are eing brought to the county leader n agriculture.

SWINE

FOR SALE — BY MAIL

HAMPSHIRE BOARS, PIGS GILTS



Write for FREE Price List.

WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

When writing advertisers please mention Hoard's Dairyman.

GUERNSEYS

GUERNSEYS

are uniformly high producers. It is breed average that tells the story. The average mature Guernsey produces 10,640 lbs. of milk testing 5%, or 525 lbs. of butterfat in a year.

Ask for "The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
Box H. D. 127, PETERBORO, N. H.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

Thorn Hill Farm Guernseys



Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

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CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Hillbrook Farm Guernseys

Herd Sire—LANGWATER HORATIUS, son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested. At 1924 Ohio State Fair we had Jr. champion female and Sr. and grand champion female. At the next show we won 8 out of 9 firsts, 3 championships and 1 grand championship.

CHAGRIN FALLS, OHIO
For prices and information, write
E. S. Burke, Jr., Owner. Wm. P. Smedley, Farm Mgr.

SARNIA FARM
Cherub Guernseys

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

CHAS. L. HILL & SON
Rosendale Wisconsin

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

—Registered—

Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.

RICHARD F. KLEMM, Baraboo, Wisconsin.

We Offer For Sale Young Bulls, Cows and Heifers

I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.

W. R. DUNLOP, ELBRIDGE, NEW YORK

100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address

O. G. CLARK & CO., WEST SALEM, WIS.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

Island Farm Guernseys

Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.

ISLAND FARM, Box A, Floodwood, Minn.

2 SONS OF LADYSMITH CHERUB

The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

Rundell & Nichalson Dispersal Sale

Dec. 19, 1924 Livingston Sales Pavilion **Livingston, Wis.**

70 MILES FROM MADISON; ALL SURFACED ROAD

56 PUREBRED GUERNSEYS — May Rose and Sequel breeding

5 BULLS, 2 herd bulls, 2 yearlings and one calf.

51 FEMALES, 25 cows (15 fresh or close up springers). Six 2-year-old heifers, 10 yearling heifers, 10 heifer calves.

Reason of sale—death of Mr. Nichalson, one of the firm.

Clean T. B. Federal test.

CHAS. A. WILKINS, Sale Manager PLATTEVILLE, WISCONSIN

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

CORIUM FARM GUERNSEYS

FOND DU LAC, WISCONSIN

WE OFFER the show bull, CORIUM SNOWDROP'S ERIC, born Oct. 17, 1923, who won the following prizes: First at Grand Forks, No. Dakota; Central States Fair, Aurora, Ill.; Tri-States Fair, Burlington, Iowa; Wisconsin State Fair; Michigan State Fair; New York State Fair; Illinois State Fair. First prize calf herd and first prize produce of dam, Wisconsin State Fair. Write for price list of bulls we have to offer.

Grade Guernseys For Sale

200 COWS and HEIFERS TO SELECT FROM

DO YOU WANT HIGH CLASS, HEALTHY, GRADE GUERNSEYS? We are offering you a choice of 200 head right now,—some of them close springers. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself.

Every animal sold, guaranteed to be as represented.

RIVERVIEW FARM, Lloyd L. Dewey MUKWONAGO, WISCONSIN
IN WAUKESHA COUNTY

SERVICEABLE BULL, From A. R. Dam — PRICE $150.00

GLENN OF CHIPPEWA is 15 months old, a deep bodied, straight backed fellow, ready for heavy service. His sire is a son of Dairymaid's Glenwood of Pinehurst and from a dam with 762.88 lbs. fat in Class A. His dam is an A. R. granddaughter of King Masher 5th. We consider this fellow a bargain at the PRICE, $150. He is guaranteed to be right.

Write for pedigree, etc. L. P. MARTINY - - CHIPPEWA FALLS, WISCONSIN

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

Serviceable Guernsey Bulls

We have 35 serviceable bulls for sale here now at very reasonable prices. We are also offering several carload of good grade cows and heifers and can supply pure-bred females in carload lots.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec., Fort Atkinson, Wis.

HAYES' CHERUB II and GERAR PEARL

We are line breeding these two great individuals by using our herd sire, Cherub's Dart (out of Pearl's Dot), on our recent purchases at Mr. Stout's and Mr. Marsh's sales.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

EL JANE GUERNSEYS ARCADIA, MISSOURI *(85 miles south of St. Louis)*

Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.

Mr. Farmer, Dairyman, or Breeder, anywhere, take notice!

BULL SALE — Since our last dispersal of bulls we have accumulated 7 that are now ready for any kind of service. We also have 6 calves. These animals are from high producing dams with records. Ten of these animals will go well in show ring. You will want one for fall service. We want to dispose of them NOW. Tell us the age you want, what you want to pay. We will send you pedigree and price list. Our proposition is 25% discount next thirty days on serviceable bulls, and 20% discount on calves. Also have several well bred young cows. Let us both make some money by buying NOW at the right price.

Federal Accredited EL JANE FARMS, - Arcadia, Missouri

This Blood Sells Fast!

Our bull calves are either sons of Anton's King Confidence or out of his daughters. They sell so rapidly that only in rare instances are we able to keep them until they are old enough for service. If you want a bull possessing this blood to head your herd, buy a calf six months' old, raise it yourself and save money. A. K. C. has gained a reputation for siring mighty good udders along with the other desirable characteristics. A bull of our breeding will make money for you and improve your herd.



ANTON KING CONFIDENCE 43517

Hoard's Dairyman FORT ATKINSON Farm WISCONSIN

Illinois Holstein Champions

Illinois has two new champion cows over all breeds for the production of milk in ten months. Both are pure-bred Holsteins owned by Harry M. Wood. Clothilde Lorenzo Pontiac, a senior four-year-old, wins her honors by completing her test period with 16,675.5 lbs. milk and 524.15 lbs. fat equal to 655.1 lbs. butter. Her barn mate, Woodell Mechthilde Superior, a junior two-year-old, produced 16,-159.8 lbs. milk containing 520.5 lbs. fat, equivalent to 650.6 lbs. butter, making her the state leader among cows of her age.—Extension Service, Holstein-Friesian Association of America.

New Jersey Ayrshire Wins Silver Medal

Edgerstoune Farm, owned by Mrs. J. G. Winant of New Jersey, is again brought into the limelight by the high producing Ayrshires which comprise their herd. This time, Thornhill Blanche qualifies as the fourth highest producing senior three-year-old in the Roll of Honor on her yield of 13,348 lbs. milk, 504.65 lbs. fat; carrying a living calf 205 days of the 300 days of her record. This exceptionally good production ranks her among the select class of silver medal Ayrshires.—Ayrshire Breeders' Association.

BROWN SWISS



SWISS VALLEY GIRL 7TH NO. 4678

Breed Brown Swiss Cattle

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N
IRA INMAN, Secretary, Beloit, Wis.
A. E. BOWER, Pres., Union Stock Yds., Cleveland, Ohio

WALHALLA FARMS
BROWN SWISS HERD
R. R. STATION, BRIER HILL, N. Y.

An infusion of Walhalla blood has proven most advantageous in many herds in this country, Canada, Africa, South America, West Indies and Mexico. Let your next bull carry 100% Walhalla blood. Address
J. FRANK ZOLLER, Schenectady, N. Y.
Care General Electric Co.
Federal Accredited Herd

LEES' HILL FARM
Brown Swiss Herd
MORRISTOWN, N. J.

An infusion of Lee's Hill blood has proven most advantageous in many herds in this country. Buy your bull from a herd in which the germ of improvement is active. Herd accredited.

JERSEYS

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; **ALSO REGISTERED JERSEY BULL CALF.**

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

Cedar Crest Farms

For Sale -- TWO REAL BULLS, Raleigh breeding. Ready for light service. Also a few BABY BULLS. Full particulars and pedigrees on request.

J. K. DERING, Owner Lake Villa, Illinois

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

For Sale --- JERSEYS

A few heifers and two young bulls, whose sire is sired by Pogis 99th of Hood Farm and whose dam's record is 690 lbs. fat at 3 yrs. and 2 mo. I also have a couple of springers.
ARTHUR D. KELLY, HUDSON, WIS.

Valley Farm

is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy., R4, Box 5, Springfield, Ohio

FOR SALE—Jersey Bulls

Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.



JERSEYS are the Dairy Animals The Average Farmer Should Own

Write: AMERICAN JERSEY CATTLE CLUB
Dept. B, 324 W. 23d St., New York

The Son of a Silver Medal Bull For Sale

SNOWFLAKE'S TORMENTOR 234788, born Feb. 24, 1924

A fine fellow, tracing to Gold Medal Bull, Sophie 19th's Tormentor, on both sides. Photos, pedigrees and description on request.

Herd Federal Accredited SHERMAN JERSEY FARM, Dept. B, Charles City, Iowa

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1f41 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.



AYRSHIRES

WALLIS FARMS— AYRSHIRES

Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance.
Federal Accredited Herd.
H. M. WALLIS, *Owner* Racine, Wis.

Ready For Service

SONS OF HOWIE'S KING OF HEARTS or CAVALIER'S LORD ROSEBERRY. We are also offering 6 BRED HEIFERS and 10 YOUNG COWS. Write us for prices. Remember our showring success combined with our herd production insures your getting real animals.
ADAM SEITZ & SONS WAUKESHA, WIS.

Ayrcroft Farm Ayrshires

have again proven themselves winners in the show ring as well as producers. Write for what you want. Herd Federal Accredited.
B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale

Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.
Wm. NISBET & SONS, Richland Center, Wis.

Accredited Ayrshires

Good type and production are found in our herd. A special price on young stock. Write for prices.

W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Ayrshire Offering of World's Champion Breeding

Fully Accredited Herd—Certificate No. 10241

BULL born Nov. 13, 1924. Color, mostly white. A thrifty individual. Guaranteed Sire: Penshurst Rising Star, 20922, A. R. 260, sire of 18 daughters in the A. R. and R. H. with 24 records averaging 10,722 lbs. milk, 557 lbs. butter, 4.15%. Dam: Kate's Trophy, 43875, an ideal cow in every respect, with three official records averaging 14,142 lbs. milk 560 lbs. fat. Also a few COWS and a nice line of HEIFER CALVES.
PRICE: $200.00.
GLEN FOERD FARMS, Torresdale, Pennsylvania

FOR SALE

Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

ACCREDITED AYRSHIRES
POPULAR BREEDING—HIGH PRODUCTION

All cows now making A. R. records. Young stock at reasonable prices including young bull from high testing cow. Herd sire backed by world's record producers.
CLOVER BROOK FARM, BRISTOL, PA.

HOLSTEINS

GRANDSONS of SIR P. O. M. 37th

from dams with long time records up to 1024 lbs. butter in year. Federal Accredited Herd. Prices from $75 to $200.
B. A. NORRIS Anoka, Minn.

Grahamholm Herd

We are using Dutchland Creamelle Colanth Lad and Duke Pietertje Korndyke Ormsb on our select herd of over 100 females. W have a few serviceable sons and grandsor of "Dutch" and some of "Duke" for sale also some calves that will soon be ready fo service.
GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesot

P. Frost Spaulding Farm Co

offers choice Bred Bulls from good record dams an sired by KING PEITERTJE MERCEDES ORMSBY one of whose daughters has just broken the World' Record in the senior two-year-old class with 1,119 lb butter in a year. This sire is a son of Sir Pieterj Ormsby Mercedes from an 1,100 lb. daughter of 1,000 lb. cow and is one of the few sons of Si P. O. M. backed by two generations of 1,000 lb. dam Get our prices.
C. L. SPAULDING, MGR., Warren, Minn

30 Extra Fancy Grade
HOLSTEIN COWS

Due to freshen September and October. A young and free from blemishes. Tuberculi tested by Federal Veterinarian and eligible t be placed in an Accredited Herd. These cow are very heavy producers, making from 12,00 to 20,000 lbs. each. Will be sold cheap, qualit considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y

Foundation Stock

HEIFERS, COWS, CALVES both sex of good breed ing, from 2 mos. old up. Prices within reach.
ORCHARD CREST FARMS, SCHOHARIE, N. Y

Foundation Females

19 Registered Heifers

7 months to 2 years old for sale. All sired by 30-lb. bull whose dam was a former Kansas stat champion. We are over-stocked and must sell a are offering this exceptional group of sisters at a ver low figure. Write
FRED HARVEY DAIRY FARMS,
NEWTON, KANSAS

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis from a 30-lb. 1,129-lb. granddaughter of Co lantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

SAUK COUNTY HOLSTEIN ASS'N.

Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
N. T. GILL, Sec'y., Reedsburg, Wis.

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*

Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".
Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.
Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.
A. J. LASHBROOK - - - Northfield, Minnesota



Sir Walker Segis Homestead

Select Your Foundation Females in Northfield Community

WHERE MANY OF THE GREAT HOLSTEINS OF THE BREED, OR THEIR IMMEDIATE ANCESTORS, WERE BRED

Send for the new community circular just out, or better still, come and select those *you like* whether grades or pure-breds. We have them at reasonable prices.

CARLETON COLLEGE FARMS NORTHFIELD, MINNESOTA
FEDERAL ACCREDITED HERD

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.

If you are in need of a Herd Sire, write us for further information.

GUSTAVE PABST HOLLYHOCK FARMS
(IN WAUKESHA COUNTY)
F. J. SOUTHCOTT, Mgr., Dousman, Wis.
A clean herd under state and federal supervision

Choice Dairy Cattle

FOR SALE—200 head of the very best Holstein and Guernsey cows, heifers, 4 to 8 weeks old calves at reasonable prices. Write the

WHITEWATER STOCK FARM
Whitewater : : Wisconsin

Ollie-Ormsby

BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.

WALCOWIS FARMS Lake Geneva, Wis.

BARGAINS

In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION
S. W Pierce, Sec'y, Randolph, Wisconsin

When You Want Holsteins!

Come to Jefferson Co. 1000 herds to select from. Our secretary, an experienced Holstein man, will assist you free of charge. Write

JEFFERSON CO. HOLSTEIN ASS'N, T. W. Anthes, Sec., Jefferson, Wis.

HEALTHY HOLSTEINS

If you want either purebreds or grades from federal tested herds and sold on a retest guarantee write us. Prices are very reasonable.

ROCK COUNTY HOLSTEIN BREEDERS' ASS'N.
John W. Jones, Sec. MILTON JCT., WIS.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

Complete Dispersion

Roice & McQuate Holstein Herd

Dec. 18, Wellington, Ohio

50 REGISTERED HOLSTEINS of show quality, 30 cows and heifers fresh or close up, 20 open yearlings and calves, and our herd sire that has excellent 7 day and year record backing. All but one animal raised on the farm. Only one over seven years old. Several show winners.

Colantha Johanna Lad, Pontiac Korndyke, King of the Pontiacs, Changeling and Creamelle Vale breeding. An accredited herd for past five years. 60-90 day retest.

Write for Catalog
CLAYTON B. ROICE, Wellington, Ohio

OHIO HOLSTEINS FOR SALE

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. State exactly what you want. One or a carload.

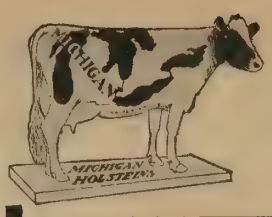
OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Registered Holstein Sale To be Held at Berea, Ohio, Dec. 17

Berea is located at edge of Cleveland. Take bus or electric at Public Square in Cleveland. Sale at Fair Grounds.

65 REGISTERED HOLSTEINS—Mostly springing and fresh cows. Good, straight, sound cattle. Carefully selected. Guaranteed breeders. Tuberculin tested and sold subject to 60-90 day retest. Many from accredited herds. Carload buyers should arrange to attend this sale. If additional cattle are wanted your order can be filled here in northern Ohio. Thousands of registered cattle in this territory. Write for catalog.

W. F. Andrews, Auctioneer. S. T. Wood, Pedigree expert
Sale managed by
OHIO HOLSTEIN-FRIESIAN ASSOCIATION, E. M. Clark, Field Sec'y., 10509 Euclid Ave, Cleveland, Ohio.



Buy Michigan Holsteins



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several car loads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.

L. C. KETZLER, R. 8 Flint, Mich.

2 SERVICEABLE BULLS

One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $150 takes either bull. Herd under Federal supervision.

J. E. BURROUGHS Flint, Mich.

D. D. AITKEN, Flint, Mich.

Breeder of Holstein-Friesian Cattle

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

Gladly answer inquiries from people who want to purchase good foundation females by first class sire.

IF YOU OWNED

SERRADELLA KING DORESS you'd be mighty proud to use him. His dam made 28.38 btr. 527.5 milk 7d and in 229d S. O. 305d test has 17,281.4 lbs. milk. She is a full sister in blood to Dora Riverside Colantha with 31.90 btr, 580.9 milk 7d, 122.37 btr 2176.5m at 3½y and 28.91 btr 628.8m 7d 2½y (State milk record when made) 114.81 btr 2438.0 milk 2½y 30d and winner of 91 points in 1923-24 Honor Roll. Born March 11, 1924. Straight as possible to be and well grown. Price 175.00. Send for picture and pedigree.

SERRADELLA FARM, Albert E. Jenkins, Mgr. A Clean Herd OSCODA, MICH.

Young Bulls AT FARMERS' PRICES!

I am offering for sale several excellent young bulls at very reasonable prices. They are sired by Ollie Pontiac Segis Piebe, one of the finest individaul sons of Piebe Laura Ollie Homestead King, out of a 1625-lb. daughter of King Segis Pontiac Count. and are out of well bred, good producing dams. These bulls are from a few weeks to twelve months old.

WRITE TODAY IF YOU NEED A BULL

LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

A Son of Echo Sylvia King Model

BRED BY TRAVERSE CITY STATE HOSPITAL

Born: December 29, 1923, well grown, nicely marked—80% white. His seven nearest dams average 32.37 lbs. butter in 7 days. Sire: A grandson of May Echo Sylvia from a 36-lb. 4-yr.-old daughter of a twice 37-lb. cow. His 42 A. R. O. daughters include a 32-lb. Jr. 3-yr.-old. Dam: A 29-lb. cow now on semi-official test with 12,361.6 lbs. milk and 550.75 lbs. butter in 182 days. Her sire has 84 A. R. O. daughters, 5 so far above 30 lbs., and her dam is a 25-lb. cow with a 365-day record of 871.86 lbs. butter and 19,696.3 lbs. milk.

Send for pedigree of ear tag No. 540 and new list of bulls for sale from the

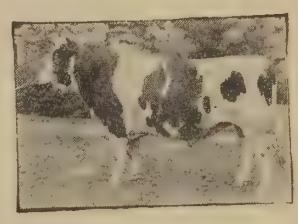
MICHIGAN STATE HERDS
REGISTERED HOLSTEIN CATTLE

MICHIGAN STATE HERDS
BUREAU OF ANIMAL INDUSTRY,
Department B LANSING, MICHIGAN

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



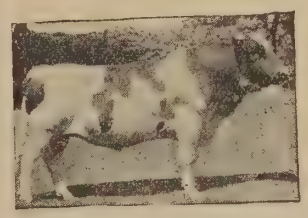
We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

Ormsby-Homestead Bulls

Out of A. R. O. dams and by a son of S. P. O. M. for sale at farmers' prices.

MILFORD MEADOWS STOCK FARM
J. C. Cort, Manager, Lake Mills, Wisconsin.

Oatman Farm Holstein Herd

FEDERAL ACCREDITED

Every cow has an A. R. O. record. World's record and grand champion breeding. Write for bull sale list.

O. A. JENS, Mgr., DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.

BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

Bull Calves For Sale

We have a few male calves from choice dams for sale. They are sired by Meadow Holm Jolie Pontiac Hartog—our 1173-pound yearly record sire. Lots of milk records back of this breeding.

PRICE $50.00

SLIVKA BROS. Plainview, Illinois

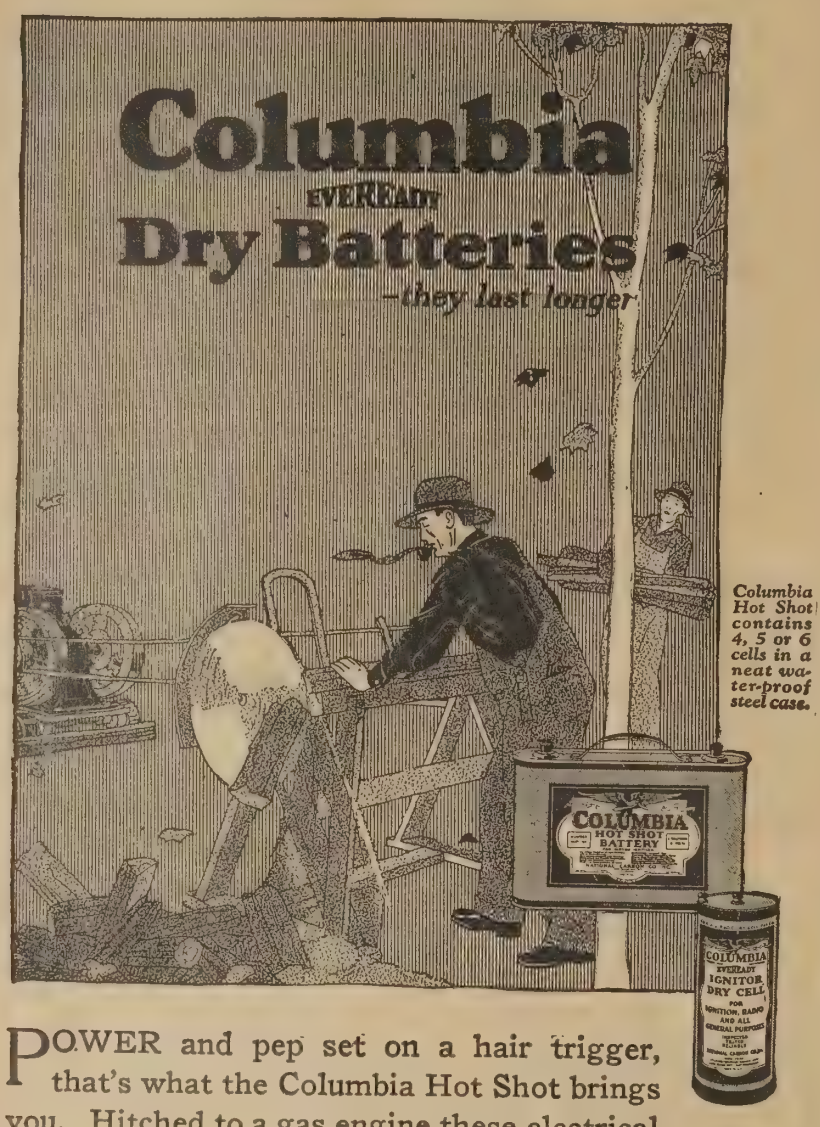
High Testing Show Bulls

ALL AGES

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD Norwalk, Iowa

Concentrated energy—rarin' to go



Columbia Hot Shot contains 4, 5 or 6 cells in a neat water-proof steel case.

POWER and pep set on a hair trigger, that's what the Columbia Hot Shot brings you. Hitched to a gas engine these electrical huskies hop on the job instantly. Their fat, hot sparks explode the whole charge, bringing to the work power that makes saws zip through the heaviest logs. For farm and mine and camp; at home and afield, Columbia Eveready Dry Batteries are ever-ready to put their last ounce of energy into the job.

When idle, Columbia Evereadys do not fret away their strength. Resting, they renew their energy and store up fresh pep to zip through the circuit at the word "go."

Don't just ask for "a dry cell." Ask for "Columbia Eveready" by name and get 100% battery efficiency. Columbia Eveready Dry Batteries are sold by implement dealers, electrical, hardware and auto accessory shops, radio and marine supply dealers, garages and general stores—Columbia Eveready Ignitors can be purchased equipped with Fahnestock Spring Clip Binding Posts at no extra cost to you.

Manufactured and guaranteed by
NATIONAL CARBON CO., Inc., New York—San Francisco
Canadian National Carbon Co., Limited, Toronto, Ontario

for

—gas engine ignition
—telephone and telegraph
—doorbells
—buzzers
—motor boat ignition
—heat regulators
—tractor ignition
—starting Fords
—ringing burglar alarms
—protecting bank vaults
—electric clocks
—calling Pullman porters
—firing blasts
—lighting tents and outbuildings
—running toys
—radio "A"

What Is The Howell-Barkley Bill?

IT is a bill that Concerns every person in the United States. It was written by the leaders of the railway labor unions and introduced in Congress at its last session. Its purpose is to increase the power of the railway labor leaders over the railroads. **Its effect would be to make it much more difficult, if not impossible, to further reduce railway operating expenses and rates.**

The Howell-Barkley bill will soon be brought up for consideration in Congress again. Farmers are much interested in railway service and rates and should, in their own interest, urge senators and congressmen to vote against it.

Railway Wages and Rates

The total wages paid by the railways in 1916, before any freight rates were advanced, were $1,468,576,394. The total wages paid in 1923 were $3,043,161,163, **an increase of $1,574,584,769.** This increase in wages is the principal reason why present rates are necessary. Wages are 60 per cent of all railway operating expenses.

It ought to be possible to advance or reduce railway wages by **peaceable means** when business conditions justify advances or reductions.

Disputes between railways and their employees which cannot be settled by direct negotiations must now be submitted to the Railroad Labor Board. This is an impartial body composed of three representatives of the employees, three representatives of the railways, and three representatives of the public appointed by the President of the United States. The public holds the balance of power.

A Bill That Would Promote Railway Strikes

The Howell-Barkley bill would abolish the Railroad Labor Board. It would create four "National Boards of Adjustment." Only the railways and the "standard national railway labor unions" would be represented on them. **The public would not be represented.** Almost one-half of railway employees do not belong to the national labor unions. They would not be represented on these boards unless they joined the national unions. One reason why the labor leaders want the Howell-Barkley bill is that they hope it will cause all employees to join the national unions and thereby **force the closed shop on the railways.**

The Howell-Barkley bill would also create "a Federal Board of Mediation and Conciliation." **This would not, however, be an arbitration board.** All it could do in a dispute over wages would be to try to get the employees and the railways to agree or to arbitrate. At present if there is a dispute which may interrupt transportation the employees and the railways must arbitrate it before the Railroad Labor Board. **If the Howell-Barkley bill should be passed either the railways or the employees could refuse to arbitrate.**

The time may come when conditions will justify reductions of railway wages. **The labor leaders for many years have followed the policy of always refusing to agree to any reduction of wages or to voluntarily arbitrate any reduction of wages.** There is no reason to believe their policy will be different in future. **This means that if the Howell-Barkley bill were passed no reduction of wages ever could be made without a strike.**

Why The Howell-Barkley Bill Should Be Defeated

First, because it would impose unnecessary expense upon the government which the taxpayers would have to pay. Second, because it would deprive almost one-half of all railway employees of a voice in the settlement of disputes with the railways or force them to join the national labor unions. Third, because it would deprive the American public, which pays all passenger and freight rates, of any voice in the settlement of disputes about railway wages. Fourth, because it would greatly increase the difficulty of reducing railway operating expenses and rates. Fifth, because it would greatly increase the danger of railway strikes.

Congressman Tincher of Kansas, representative of a farmer constituency, denounced the Howell-Barkley bill in a speech at the last session of Congress as "a Resumption of Railway Strikes Bill."

Any senator or congressman who votes for this bill will vote against the best interest of farmers and all others who pay railway rates.

This is one of a series of advertisements published to give the farmer authentic information about railroad matters. Any questions that you would like to ask will be cheerfully answered. Address:

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS
650 Transportation Building, Chicago, Illinois

S. M. FELTON, President, Chicago Great Western Railroad;
L. W. BALDWIN, President, Missouri Pacific Railroad;
RALPH BUDD, President, Great Northern Railway;
H. E. BYRAM, President, Chicago, Milwaukee & St. Paul Ry.;
W. H. FINLEY, President, Chicago & North Western Railway;
CARL R. GRAY, President, Union Pacific System,
J. E. GORMAN, President, Chicago, Rock Island & Pacific Railway,
HALE HOLDEN, President, Chicago, Burlington & Quincy Railroad,
C. H. MARKHAM, President, Illinois Central Railroad;
C. E. SCHAFF, President, Missouri-Kansas-Texas Lines.

A C Ed. 30 July 25
Expt. Sta.
Urbana Ill.

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



Merry Christmas
1924

The De Laval Milker



Helped Make A World's Champion

"I am very proud," says R. R. Stevens of Ontario, Canada, shown above with his wonderful herd of Holsteins, "and naturally much gratified over my success in producing these champion animals (World's Champion Holstein in 305-day class; also Champion Jr. and Sr. 2-year-old Holsteins for Canada), but it is only right that I should give the De Laval Milking Machine its full dues as the most important agency in the development of these records. These facts are all beyond question and should settle the matter conclusively for those intelligent dairymen who are asking the question as to whether the De Laval Milker will pay them."

Produces Clean Milk

"We were doubtful at first whether or not we could keep our bacteria count down with the De Laval Milker, also about the ease of keeping machine clean; but we have been very well pleased with the results, as the bacteria count return from Abbotts Co., Philadelphia, has been very satisfactory. The count taken by Abbotts at Philadelphia, May 25 (43 miles from farm) was 700.

"We also find that the machine when properly cared for and handled by careful, fast milker, will milk more cows, and milk them cleaner, than any other machine we have had experience with, one of our men milking and stripping 20 to 24 cows per hour."—Blue Hen Farm, Delaware, (shown below).

Dr. C. H. MAYO, Owner J. M. PUNDERSON, Supt.

MAYOWOOD FARMS
3000 ACRES DEVOTED TO THE PRODUCTION OF DAIRY CATTLE AND DAIRY PRODUCTS
• • HOLSTEINS AND GUERNSEYS • •

ROCHESTER, MINN. Nov. 3, 1923

De Laval Separator Co.,
29 E. Madison St.,
Chicago, Illinois.

Gentlemen:

We have been milking eighty registered Holstein and Guernsey cows with your machines for the past six months. About thirty-five have been milked four times a day, twenty of them three times a day and the others were milked twice daily. All these cows are run in the Cow Testing Association and many of them are on Advanced Registry test, and are making very creditable records.

One nine year old daughter of Sir Pietertje Ormsby 14th has just finished with 850 pounds of butter made in a stanchion and milked with machines. Another daughter of Johanna Ondine Grahamholm Lad is just finishing the year with 20,000 pounds of milk and 800 pounds butter made in a stanchion with machine milking. Our Guernsey herd is doing equally well having topped the Cow Testing Association for the past three months.

We have used several other milkers with more or less success but up to the present time have seen nothing that will get the all around results that the De Laval machines get. They are popular with the boys that do the milking. Our milk is produced under the supervision of the Rochester Health Department and is sold to a high class trade as raw milk. We are able to produce milk of low bacterial count and excellent flavor with the De Laval milkers.

Yours very truly,

MAYOWOOD FARMS
J. M. Punderson
Superintendent.

JMP s

Dr. C. H. Mayo, owner of Mayowood Farms, is one of the internationally famous Mayo Brothers of Rochester, Minnesota, who are considered the greatest surgeons in the country.

"The Better Way of Milking" says Owner of World's Champion

Mr. L. C. Daniels of Oregon, owner of the world's champion Sr. 2-year-old Jersey who recently made other splendid records, writes as follows:

"All the above-named cows (three daughters of Belle's St. Mawes Lad, who qualified for a silver medal) were milked the entire time with a De Laval milker, and I firmly believe their production proves conclusively that it is 'The Better Way of Milking'."

Sold on Such Easy Terms It Pays for Itself

After eight years of successful operation, and with more than 25,000 in actual use giving remarkable satisfaction, there is no longer any question that the De Laval Milker is superior to any other method of milking.

We could go on quoting from hundreds and hundreds of satisfied De Laval owners from all sections of the country. If you are milking ten or more cows you need a De Laval. Sold on such easy terms that it will pay for itself. Send coupon for complete information.

READ THIS LETTER



THE DE LAVAL SEPARATOR COMPANY, Dept. HD1

New York	Chicago	San Francisco
165 Broadway	29 E. Madison St.	61 Beale St.

Send Milker [ ] Separator [ ] catalog
(check which)

Name .....

Town .....

State .....

R. F. D. ..... No. Cows .....

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Entered at Fort Atkinson, Wis., as second class matter.

Copyright 1924. W. D. Hoard & Sons Co.
Volume LXVIII FORT ATKINSON, WIS., DECEMBER 19, 1924 Number 23



The Land of Peace and Promise

Walter H. Ebling



DO you remember how we all hung our stockings in a row—the children, mother, dad, and the hired man? How cheerful in spirit and how rich in good fellowship were those old time Christmas days on the farm, and how we did look forward to all the things that went with them! There was the thrill of the Christmas tree with its trimmings of tinsel, brightly colored paper, and candles. There were candies and cakes, nuts, popcorn, apples, and other goodies that mother had made. Then, too, there was the drive to church in the big bob sleigh. Do you remember the clear jingling of the sleigh bells and the crunching of the snow under runners, and how you tucked the blankets close about you as the team sped down the wintry road?

Truly, it is a beautiful holiday custom which has come down to us through all the ages since the first celebration of the birth of the Christ Child in the little town of Bethlehem in Judea. The simple, homely Christmas customs of the countryside have perhaps been best preserved in our farm homes. Indeed, of all the days in the year Christmas is truly the farmer's holiday.

It is well that the country boy of today can roam the hills and study the swamps for a suitable Christmas tree. Some have even improved on nature and learned to make beautiful trees from juniper boughs where the evergreens are not available. Certainly, the farm boy of today can get as much joy from the Yuletide festivities as could the boys of old.

But far greater are the changes which have taken place in our other phases of farm life. From the time when David tended his flocks on the hills of Judea to the period of the Civil War, there were fewer changes and developments in agricultural methods than have come in the last sixty years. Most farm boys have heard their grandfathers tell about farming in the pioneer days. Log houses and barns were common then and the farm family tried to raise and make nearly everything it needed. Often grandfather has told of the times when a yoke of oxen, a plow, a wagon, a scythe, a cradle, a wooden rake, an axe, and an old muzzle-loading gun with its hickory ramrod, powder horn, and lead pouch, and perhaps mother's spinning wheel made up nearly all the farm equipment.

After the prairies were broken and patches of the woodland were cleared, wheat and other grains were commonly produced for market by the early pioneers. Like a great wave the wheat industry swept westward across the American continent and before many years we were the leading wheat growing nation of the world. The wheat era brought with it many things new and wonderful in agriculture. It helped the early pioneers to pay for their land and homes; it caused the lines of railroads to extend rapidly and brought the widespread building of wagon roads; and greatest of all it gave to the world the twine binder, which was made possible by John Appleby, a Wisconsin farm boy, when he hammered out the world's first twine knotter in a gunshop at Beloit. Little did he realize that his tiny invention would do more for civilization than anything that had been produced since the brain of an English boy, Jimmy Watt, more than a hundred years before got the idea of making the first steam engine as he watched the throbbing lid of his mother's teakettle rise and fall in the escaping steam.

But, after a time, wheat growing began to wane in many sections; and while the great wave of this industry still lingered in the newer regions, some parts of the United States were soon looking for a change in their methods of agriculture. Many of the hillsides were gullied and washed; the wheat kernels often were shriveled and small and almost each year the fields were devastated by chinch bugs. Clearly the older lands no longer yielded as well as they formerly had.

Following the westward migration of wheat, many things were tried in the older sections, and our wonderful systems of diversified farming grew out of this period. Oats were soon extensively grown, and also corn which the Indians had raised for centuries in their little wilderness openings or on woodland mounts sloping toward the South. Instead of the red man's squaw corn, however, our fathers grew the already improved

"PEACE UPON EARTH," whisper the falling flakes of snow,
That softly mantle o'er the garnered fields below,
Shielding secure from dreary winter's biting blast,
Kind Nature's stores of seeds and buds that slumber fast.

Not dead but sleeping are the grasses, ferns, and flow'rs,
The folded fronds that green will clothe the forest bow'rs,
When spring with balmy breath and gently show'ring rain,
Wakes from their cozy beds the tender leaves and grain.

Seedtime and harvest, summer heat and cooling rain,
Are promises to man that hearten him again;
The darkest hours are those which usher in the day,
The clouds that threaten now will quickly pass away.

"GOOD WILL TO MAN," ring out the chimes across the snow,
And echo clear—"Praise God from Whom all blessings flow."
The earth which furnished food when warmed by summer's sun.
Again shall nourish man when winter's sleep is done.

—A. S. ALEXANDER.



flints and the dents developed in the eastern states.

Then came the prophets and the doers in dairying. Soon highly diversified systems of live stock farming gained a foothold in some of the older sections and rapidly spread elsewhere. Organized effort and the far-seeing leadership, together with the work of the Agricultural College and men like Hoard, Henry, and Babcock, extended the industry until it reached many states in its scope.

Yes, things are greatly changed since the pioneer days. On the very ground where the Indians hunted wild animals and the rich red blood of their killings drained with a soft oozing sound into the spongy, moss-covered soil and mold of dead leaves, now stand our fields of clover, our orchards, and gardens. Where grandfather grubbed stumps and trees all day long, and the fires of his brush piles and logs reddened the heavens far into the night, we run our machinery almost without obstruction. And where men started to town, to the grist mill, or saw mill in the small hours of the early morning, long before daylight came, and went laboriously cracking their ox whips and loudly sounding their "Gee" and "Haw", "Whoa" and "Giddap" as the creaking carts moved slowly down the timber trail for hours, we now cover the same ground over modern roads with an automobile in but a few minutes.

Indeed, no group of boys ever had so much handed down to them as the farm boys of today. No similar group has been given more to enjoy. Several generations have gone before in the building of our farm homes and machinery has added much to the pleasure of the entire business.

The farm boy of today should, if he remains on the farm, inherit all of these efforts of the past. His business will be one of using very largely what others have built, and it is hard for him to realize that only a few generations ago the sharp twang of the red man's bow string and the swish of his arrow sounded in the wilderness which covered the very ground he now works.

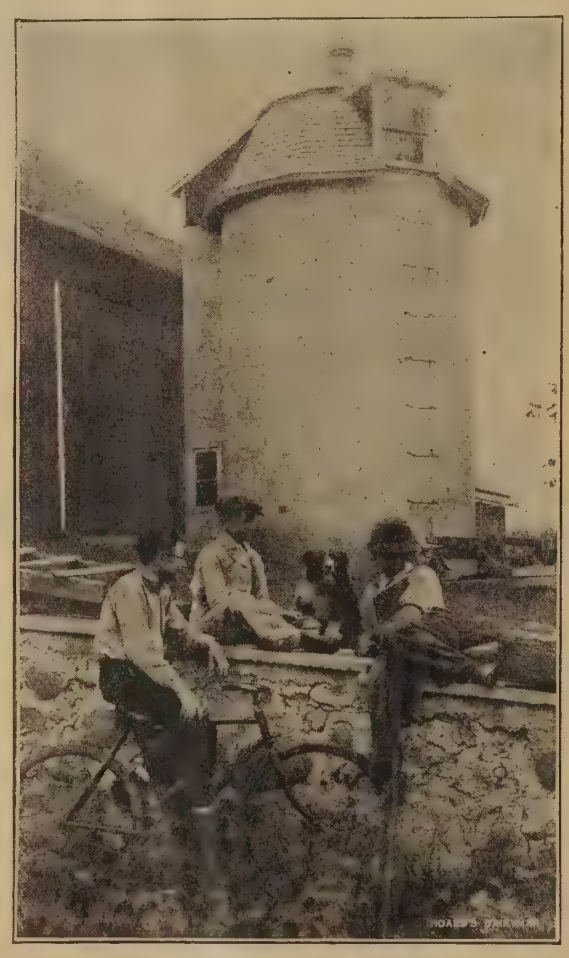
But it is true that even now millions of people are leaving the farm for the city. Right there is one good reason why many a bright boy will stay on the farm. He knows better than to yield to the call of the city and to follow the crowd. He knows very well that some day many of this same crowd will return tired of the city's confusion and wishing they had never left home in the first place. Of course, some must go to do the work of the cities, and then, too, many are better fitted for city life than for the farm. But fortunate is the farm boy who can enjoy the country which he knows well enough so that he can find his life work and happiness there.

Go into the street cars of any great city at the close of the working day and see some of the old men who are past the prime of life. They are alone in a great hurrying crowd; they look wistfully forward uncertain of the future. For a livelihood many are dependent on an uncertain job which may vanish overnight. Think of the sadness of that story. Many of these men were once healthy, happy boys on the farm. When you speak to them of that old home on the farm, a far-away look comes into their eyes. They see again their boyhood days and think of Christmas days by the family fireside; of coasting on the hillsides; winter sports on the ice and snow; the warmth of springtime and the budding of flowers; the songs of birds and the aroma of the orchard in bloom. They think of the horses they used to ride in the pasture, of the baby animals they helped to raise, and the old farm dog who did everything from driving the cows out of the pasture to hunting rabbits on the hillsides and treeing raccoons on frosty nights in the fall.

Yes, there are millions of such city men. If given one last wish in life, they would ask to go back to live on the farm from which they came. They can see that they could have found peace and comfort and happiness simple and satisfying. In the recollections of home they can easily become that old farm richest reality. But beautiful well spent life. In the recollection of home they can now see a satisfaction which could easily become one of the richest realities of a well spent life. Why should the country boy want to leave his father's farm and go to the city? If he only knew it, he already has in his possession so many of the things that city folks most desire. His is a business that is the most fundamental to the life of the nation, and from days immemorial it has been looked upon as the oldest and noblest of the efforts of man. There are now about 110 million people in the United States and of them the number on farms is less than 30 per cent. Our population is growing rapidly and it will continue to grow. All of our people will have to be fed and in a growing country, such as ours, somebody will certainly have a chance in the long run to do that job at a profit. The United States as a nation is rapidly becoming an importer rather than an exporter of foodstuffs. It is well to remember that the food supply for our millions must in the main come from the soil and that it must and will be paid for.



W. H. EBLING



EVEN THE DOG IS INTERESTED

In choosing his life work it is important that the farm boy chooses intelligently. The grass over the fence always looks greener and sweeter to the old cow than that at her feet, but many times she has found it most unwise to go into the neighbor's pasture. Likewise the lure of the distant city may hold out false hopes to the bright boy from the country. Whatever he does, he should get the truth before he decides upon where he will seek his place of service.

By training himself for it, the farm boy may find his greatest opportunity right in the country where he was born. Most states have provided the schools to give him the training he needs and it will pay him to work toward it. Most states have agricultural short courses which are particularly adapted for the training of the farmer of tomorrow. The cost of taking these courses is not great, in fact many who have very little money work their way through. They do this, not only in the short courses, but also in the full college courses.

The call for men trained in agriculture is insistent. In Wisconsin where the Short Course in Agriculture has been given for forty years, there never have been enough men so trained to meet the existing demand. A very large number of them go back to the farm from which they came and some take positions on other farms, with cow testing associations, dairy companies, and other organizations.

Men taking the full college course in agriculture also have found openings in many fields of service. Indeed, the possibilities of this kind of training are as great as in any of the other university courses. In agriculture, like in other fields, opportunity comes seeking those who are prepared.

In going into any field one should know something of the rewards expected for service. Analysis of the work of many graduates of agricultural schools has shown that the training so received has paid. It pays in money, but even more so in happiness and satisfaction. Education teaches one to live and it rids the mind of prejudices and false judgments which have handicapped mankind through all ages.

The trained man learns to surround himself with the things which he needs to make life more worth while. While the ownership of a farm means the owning of a home and a life of at least personal independence, it also provides a place for the ideal family life, the kind of family life from which many of the country's greatest men have come. The good farmer with a farm of the right sort is always sure of a living, sure of a job, sure of a good home, and secure in a place for the investment of what money he makes.

Furthermore, the trained man's broader grasp of the problems of the farm enable him to overcome many of the troubles that otherwise hold him back, and rural leadership comes quickly to him. In a few decades you see him occupying an important place in all the business and social relationship of the country and the town, or ever and anon chosen by his community to represent it on the county boards or in the state legislature. Over half of the members of the last Wisconsin legislature were from farms.

Proper education may easily become the means toward the attainment of some of the highest rewards of life. Its value can never be fairly measured in terms of money, for money, though necessary in our complex society, is by no means to be made an end in itself. To the farm boy who faces the world with his whole life before him, one can only say:

"Study carefully the things that are offered by that old home farm. Overlook not those deep satisfactions which enriched the lives of the patient builders who have gone before us. Hold fast to the things that are good, lest they be lost through the distant lure of false lights and glittering hollows of high vibration which seldom are what they seem. May your Christmas fireside on the farm be a happy one for many years!"



"AND STILL WITH REVERENT HANDS WE CULL THY GIFTS EACH YEAR RENEWED."—WHITTIER.



Stabilizing the Dairy Industry

Frank O. Lowden

WE are just coming to understand the importance of the dairy industry. Dairy cows have been scattered so widely over the country that the relative importance of dairying until recently has been generally overlooked. The vast cotton areas of the South, the great corn fields throughout the corn belt, the waving stretches of wheat in Kansas and in the Northwest, all appeal to the imagination and are likely to be regarded as the measure of agriculture's might in the United States.

The fact is, however, that the dairy industry, in the value of its products upon the farm, greatly exceeds the total value of the cotton crop of the South or the corn crop of the United States, and is considerably more than double the total value of all the wheat produced in the country. It is stated by Professor Hatch, of the University of Wisconsin, that four billion dollars of the national income is derived directly or indirectly from the dairy cow. Its rewards, too, are distributed among a larger number of farmers than participate in the proceeds of any other product of the farm.

Its relation to the health of our more than a hundred million people is just beginning to be appreciated. It is the cheapest balanced ration in the dietary of the human race.

The importance, therefore, not only to the dairy farmers but to our entire business structure, of stabilizing this great industry is readily apparent. No industry can be stabilized without rewards to those engaged in the industry sufficient to induce them to go on producing.

After the deflation in 1920, which hit the farmer first and hardest, other farm products declined more than dairy products. This in itself tended to encourage farmers generally to look upon dairying with more favor, with the result that latterly there has been a larger production of dairy products than the markets could easily absorb. I would not say there has been an overproduction of milk. If the per capita consumption of dairy products was as great in this country as the health and well-being and ability on the part of the consumers to buy justified, there would now be underproduction. Our exports and imports of dairy products during the last year have about balanced each other. Prices of dairy products, however, latterly have been depressed, and many dairy farmers are now discouraged. This, in my opinion, is but a passing stage, and the future of dairying in America is at least as bright as any other form of agricultural activity. With the greatly increased price of all grains, many farmers who were driven by necessity to the dairy cow will return to their former activities. The consumption of dairy products is steadily increasing in the United States. The genuine dairy farmer who now persists in going on with his cows may expect, in my opinion, a relative increase in the price of dairy products until dairying again is on a satisfactory basis.

In the meantime, the dairy farmer should aim at the most economic production possible. He has an instrument at hand for accomplishing this. I mean the cow testing association. It seems hardly possible that I shall be able to say anything in favor of cow testing associations has not been already better said by Hoard's Dairyman. And yet the benefits to be derived from these associations cannot be reiterated too often.



F. O. LOWDEN

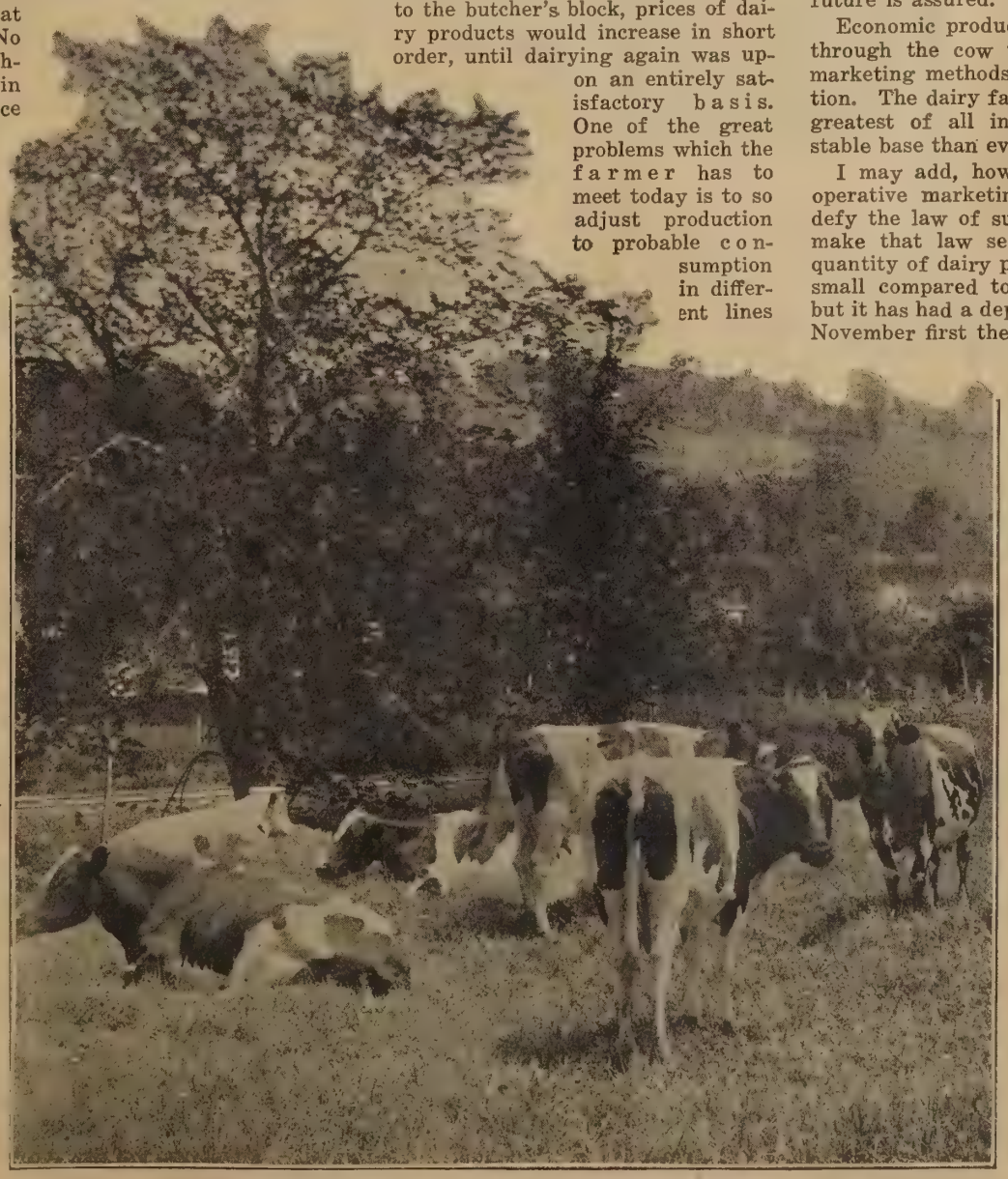
It is generally admitted that about a third of the cows upon the farms of America, even in normal times, do not produce enough milk to pay for their feed, to say nothing of the labor and other items of cost. When feed is relatively high and milk relatively low, as at present, it is probable that considerably more than a third of the cows now being milked are milked at a loss. The only practical way known by which the farmer can discover which of his cows are profitable and which are not is through the cow testing association. Whenever in any community a cow testing association is organized, the unprofitable cows begin to disappear. Now, if half the cows that are being milked today at a loss were sent to the butcher's block, prices of dairy products would increase in short order, until dairying again was upon an entirely satisfactory basis. One of the great problems which the farmer has to meet today is to so adjust production to probable consumption in different lines as to receive a reasonable price for the things he has to sell. Other industries highly organized have been able to accomplish this more successfully than the farmer with the result that the tendency in other lines of production is to stabilize the prices. The farmer will some day accomplish this himself, as I believe. I realize the difficulties in the way generally. However, in the dairy field it can be accomplished more easily than with any of the other products of the farm of which I know, and this by employing the agency of the cow testing association. If the bulk of the milk produced in America were produced by members of cow testing associations, such a thing as overproduction would be impossible. For, if for any reason the price of milk were unduly depressed, the least profitable cows would be eliminated until consumption had again overtaken production, when the proper price would be restored. In no other field of agricultural production is so efficient a device already in existence for regulating supply to meet the demand.

The dairy farmers of America too are just beginning to realize the tremendous service which co-operative enterprises can render them. In Denmark and in Holland dairying has been transformed through various co-operative enterprises, and it has been greatly aided in the same way in many parts of our own country. This, however, is too long a story for this brief article.

The dairy farmers of America, in spite of many difficulties, have succeeded in making theirs the greatest industry in all the land, ministering to the health and well-being of more people than any other single industry. It is an industry whose future is assured.

Economic production is easily achieved, largely through the cow testing association, and better marketing methods are possible through co-operation. The dairy farmers can, if they will, put this greatest of all industries upon a higher, more stable base than ever yet has been reached.

I may add, however, that the purpose of co-operative marketing of farm products is not to defy the law of supply and demand, but only to make that law serve the farmer. The present quantity of dairy products in storage is extremely small compared to what we consume in a year, but it has had a depressing effect upon prices. On November first there were in cold storage in this country 135,251,000 lbs. of butter and 87,808,000 lbs. of cheese, not enough to supply our demands for a single month. To permit such a small quantity of surplus to depress the prices of dairy products immediately reveals the necessity of a better system of marketing. It requires but a moment's reflection to come to the conclusion that it is to the consumer's interests to have at least a month's supply of butter, cheese, evaporated milk, etc., on hand. Since the days of Pharaoh we have had the lean years and the fat years. It is only prudent that we should have on hand at all times a surplus stock of foods. It is not fair to the farmer to permit such a surplus to depress the prices of his products below the cost of production, when it is to the advantage of all to have several months' supply of food on hand. Co-operative marketing when fully developed will do much toward preventing necessary surplus depressing the prices of our agricultural products.



CONTENT WITH WHAT LIFE GIVES OR TAKES—Lowell



Bossies Have Christmas Dinner at John Feedwell's

W. J. Fraser

IT was a New Day in Cow Emancipation, and in its happy celebration these ever-giving creatures of the highest good will, found voice in an irresistible and fateful challenge to all dairydom.

A goodly number of bovine mothers from Hidairy Valley had come to Bossies' Delight Farm for Christmas dinner in answer to the invitation of Madam Bountiful, the chief matron of John Feedwell's herd.

After much eating and merry gossip, John Feedwell came in and asked, "May I help you to something more?"

"No, no. We couldn't eat any more."

"This is the choicest alfalfa we ever ate, the silage has just the right flavor, and the grain is wonderful. It is the best dinner we ever had and there's every bit we want. This has been a wonderful treat for Christmas." So spoke Molly Standby from a neighboring herd.

"But this is our regular fare all through the winter months," said Madam Bountiful.

And Betty Brightdaughter spoke up: "Yes, and all summer we have the sweetest clover pasture you ever saw, and it never dries up or stops growing. Our greatest task is to eat it down so we can see out."

Chorus: "Isn't that wonderful?"

"What nutty-flavored, sweet-smelling, leafy alfalfa hay this is! Do you really mean that you always have it done to a turn like this? Down at our farm we have old stemmy, burnt leafless hay that wears out our teeth and scratches our throats raw as we try to swallow it. The woody stems nearly punch holes in our ears." This was Spotty Goodtaste from the lower end of the valley.

"Yes, that is all true," said Madam Bountiful. "John Feedwell has learned how to put up hay so as to double its value. So many dairymen don't seem to know the difference between good and poor hay, but they would if they had to chew and swallow it themselves."

"My boss knows just how to put up silage, too. It is so juicy, sweet, and delicious that we eat all we can hold of it, 40, and even up to 44 lbs. a day. And you can't deny that's what makes the milk. But I can remember years ago when the boss cut the silage too early and it had that fierce rancid taste that made us sick. It was sourer than green apples and gave us the gripes. We couldn't make half our record of milk on that." This was Molly Standby speaking again.

Then Madam Bountiful rapped for attention: "There have been great changes for the better in this Valley as you all know, and it seems fitting that we should talk over this matter and see what we can do to carry the good work throughout dairydom. Who would ever have dreamed that we should have increased our giving more than 50 per cent in three years, and that we should have lived to see this day of good eating and great giving. We don't go hungry any more, and, would you believe it, I have almost forgotten the dry taste of that old corn fodder; yes, and the still drier timothy hay."



W. J. FRASER

Here John Feedwell came in again and interrupted: "Madam Bountiful, will you permit me to present at this time a tribute to the achievement and Christmas spirit of your kind—a matter of long and growing conviction in my mind?"

"Shall we pause to hear what this good man has to say?"

"Yes," "Yes," "Yes." "After such a dinner and such co-operation with us."

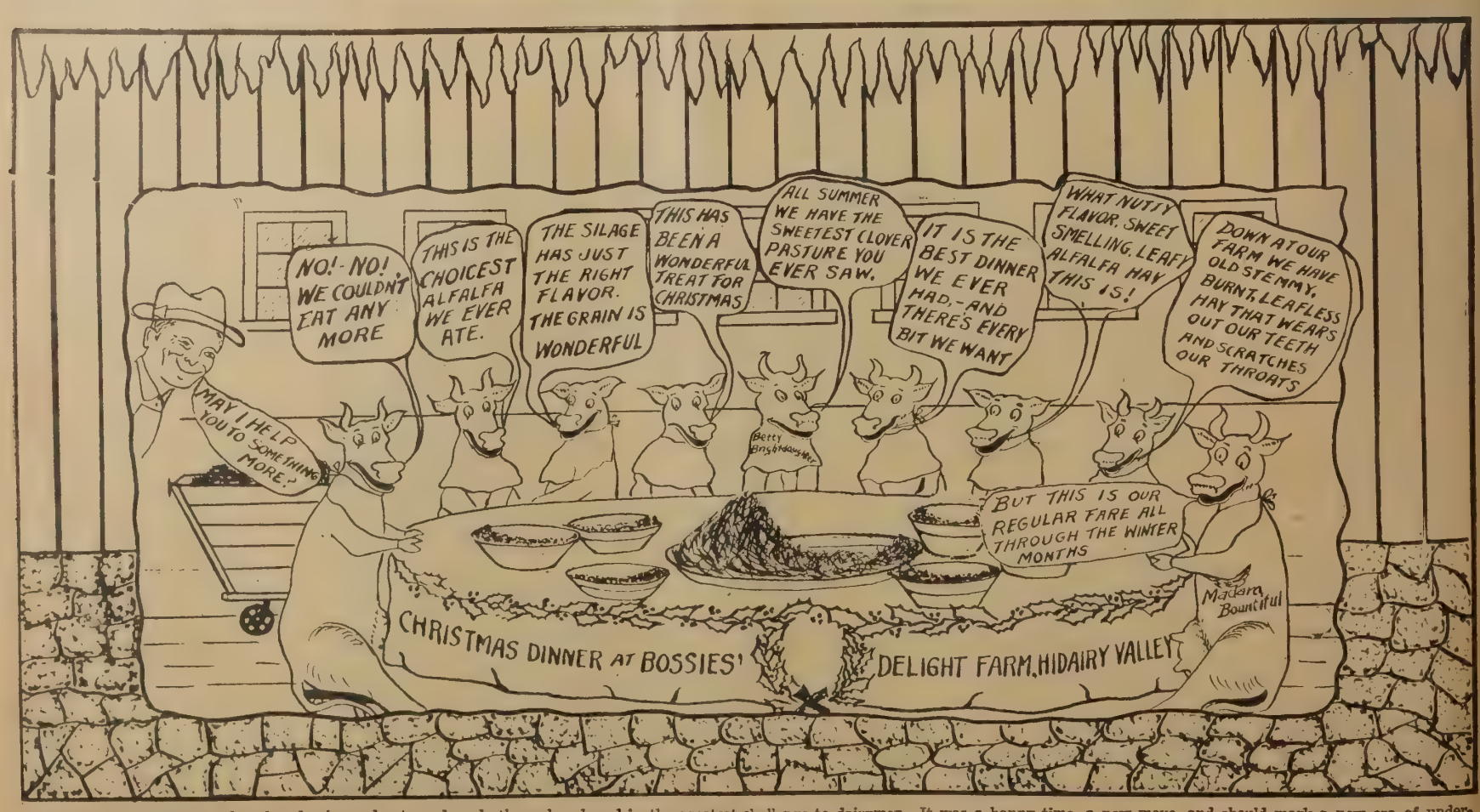
Then John Feedwell read the following tribute:

"The Greatest Giving from Creature to Man"

"Who has ever thought to measure the place of the dairy cow in the affairs of men, to sum up her contribution to world achievement? Her gift is above gold and more precious than rubies. It is the highest of man's necessities—food—and the most perfect food man has ever found. Milk is more than bread, more than meat, more than all the roots and grains of the field; it is the first food of man and the greatest material gift to mankind.

"The Mississippi is justly the Father of Waters, but a greater and longer river is the stream of milk flowing from its bovine source to all the children of men—and it is the Mother of All Food.

> The cow is the foster mother of the human race. From the day of the ancient Hindoo to this time have the thoughts of men turned to this kindly and beneficent creature as one of the chief sustaining forces of human life."
>
> W. D. Hoard



It was here that cows first found voice and vote and made themselves heard in the greatest challenge to dairymen. It was a happy time, a new move, and should mark a new era of understanding and appreciation on the part of the dairyman for his cows. The cows revealed that they knew more about their specialty of milk production than dairymen and chemists ever suspected.

"Milk is a mystery; we cannot tell all that it contains, nor explain all its magic service in nutrition, but we are sure that it supplies whatever the body needs for vigor and growth. It is the crowning perfection of exquisite nourishment. Milk is the material essence of mother love for her young. It is the *real* elixir of life.

"The highest food of earth is the handiwork of this humble creature. There is no speech nor language where her benefactions have not come. There are no children of men whom she has not nourished. Her food line is gone out through all the earth, and her gifts to the end of the world.

"Many other animals give milk to their young and some of them give a little for man, but no other creature has caught the world vision of giving. The dairy cow alone is the perfect giver, and her devotion and development in giving exceeds all bounds and measures of comparison. Other creatures have brought great and various gifts to man, but she is supreme among them all—queen by the only divine right—by service and achievement. Their ponderous strength and prowess of battle and skill of craft and cunning of sense, all put together cannot approach her quiet attainment.

"The dairy cow is the greatest economic ally of the farmer; the soundest basis of his business. She is the greatest specialist in the world in both her skill of labor and total of product. There is the silence of the library and the awe of a superior work being carried on as one comes into a dairy herd. All the laboratories of the earth and all the delicate and precise operations of the most skilled chemists cannot equal the easy endeavor and perfect product of these silent, contented workers.

"This quiet, unassuming dairy cow, so familiar in any wayside pasture or common stable, is a creature in disguise. We have barely begun to understand her partnership in our fate and fortune. She is not only the queen of all the fairies in beautiful benefaction, but she is a leader of forces and a Niagara of power in the economic realm.

"How did the dairy cow find the secret of her marvelous development and strike the master chord that was hid from all the wise and prudent? Was it not in her pure motive and good will and highest ideal of motherhood? With her it is Christmas all the year, as she gives herself utterly and willingly in this meek and glad endeavor, and she has found the highest expression of God's creatures in a giver of food for man."

After a long minute of intense silence, a chorus of response came from around the table. "Thank you, thank you, John Feedwell. Now we know that you understand cows."

At this point the chairman rapped for attention and spoke as follows: "How can we respond in the greatest measure? How can we bring such good feed and prosperous times to other dairy herds and dairymen? It can only be done by starting a movement, giving to other dairymen the understanding of cows which John Feedwell has just expressed. I believe it is fitting that we put this idea into words which will be a challenge to all dairydom, and I would like to have an expression of opinion on this subject."

"Yes, yes, we should by all means," came the chorus of response.

"It seems unanimous, and I think we should now discuss the basis of this co-operation," said Madam Bountiful, and she continued to this end. "You all know that the secret of the success of John Feedwell and a few other men in this valley is that they have learned to feed their cows good silage and fine alfalfa hay, absolutely all they can eat of it, and grain as they need it; with luscious sweet clover pasture that never fails all summer and is so plentiful that the cows can eat their fill in less than an hour."

Here Molly Standby asked Madam Bountiful to explain how much good roughage cows will eat.

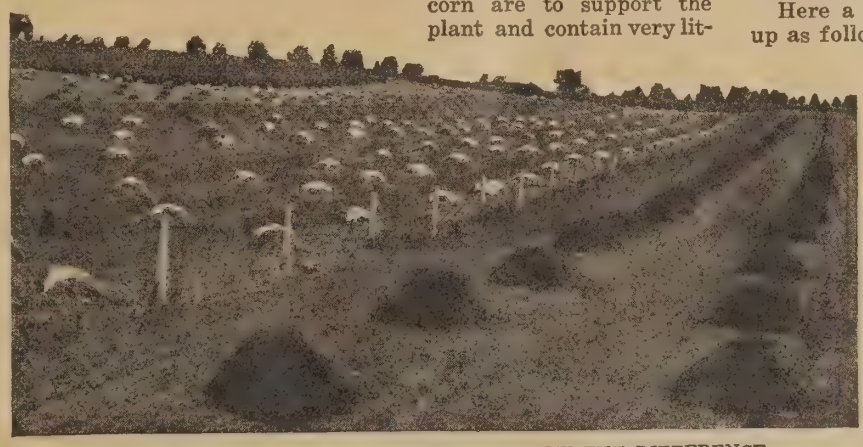
"Well," said Madam Bountiful, "we eat all we can but, of course, large cows can eat more than small ones. It is well demonstrated, however, that good producers weighing 1,200 lbs. will consume 40 to 45 lbs. of silage and 15 to 18 lbs. of alfalfa hay, while cows weighing about 900 lbs. use 30 lbs. of silage and 12 lbs. of alfalfa hay. That has been the experience in this herd and on the best dairy farms in this valley. But the fact is that very few dairymen know how much good roughage cows will eat because they have never tested it out thoroughly. Of course, if the cows are fed more grain than they need, they will not eat so much roughage."

John Feedwell's Ration

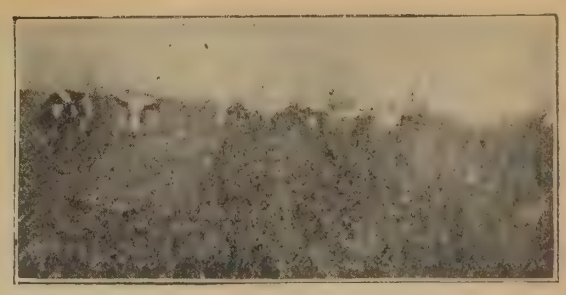
	For cows weighing: 1200 lbs.	900 lbs.
Good silage	40 lbs.	30 lbs.
Fine alfalfa hay (All cows can eat)	16 lbs.	12 lbs.
Ground corn and oats	9 lbs.	7 lbs.
Daily production	40 lbs.	26 lbs.

"But there's Sam Skimpem down our road." broke in Betty Butterfat. "He gives his herd good feed but never enough of it, and he expects the cows to clean up all the coarse alfalfa stems and the cornstalk butts, every scrap. They never get more than 25 or 30 lbs. of silage and 8 to 10 lbs. of hay. They never have a full meal of nice rich feed, and of course can never fill the pail with milk."

"That's a shame," replied Madam Bountiful. "Isn't it strange that so few dairymen have learned that the stems of alfalfa hay and stalks of corn are to support the plant and contain very little nutriment. Does he eat the bones of his Christmas turkey? Skimpem told Feedwell that we would eat all the stems and stalks if they were ground. I suppose we couldn't help it, and it would be an equally good suggestion for Skimpem to have the turkey bones ground and mixed into the dressing. But John Feedwell doesn't want us to clean up those coarse, unnutritious stems and stalks. If we did, he would know that we were starved to it and immediately increase the good roughage part of our ration. He says he is feeding for milk and not to see how long he can make the feed last. He wants us to be full of this rich, juicy, cheap feed because he says you can never have the ration which combines productivity and economy in the most efficient manner and skimp the cows on roughage. "*All the Good Roughage They'll Eat First, and Plenty of Grain When They Need It*" is his motto and it hangs right here in this barn. He says he is feeding not only for milk which requires a large productive ration, but also for profit which requires an economical ration. These two things in a ration are the dairymen's goal and John Feedwell has certainly combined them in his, as our production and his bank account will show."



"SO MANY DAIRYMEN DON'T SEEM TO KNOW THE DIFFERENCE BETWEEN GOOD AND POOR HAY"



"OUR GREATEST TASK IS TO EAT SWEET CLOVER DOWN SO WE CAN SEE OUT"

"We want to carry this message to the thousands of Sam Skimpems, Roughage Skimpems, and Grainful Thinknots throughout dairydom. None of them are producing milk in the most economical manner. There are other thousands of dairymen who skimp their cows just as truly and limit their production just as much when they feed an unbalanced ration containing the wrong kind of roughage such as poor silage, timothy hay, or corn stover, as though they did not feed enough. To balance this ration a large amount of high priced concentrates is often fed, but this makes an expensive ration, and is not economical when the right roughage could be used instead."

Here a cow from the lower valley road spoke up as follows: "Now our dairyman is a real good fellow and feeds us plenty, lots of corn meal, some oats, and corn silage, and timothy hay, but there is something lacking in it; we simply cannot make a lot of milk from it, and we know it with every mouthful. He has a funny name—Timothy-Taken-In—and I think it fits him exactly."

"Oh, I know what is the trouble," broke in Brightdaughter. "That is what mother was just talking about—an unbalanced ration. It lacks what Farmer Feedwell calls protein. Your ration contains plenty of feed, but you're wasting a third of it because you can't use it without the protein which we get such an abundance of in our alfalfa hay. Yes, and you lack the vitamins and minerals too, which the alfalfa contains, and without these you can't keep well and strong to make milk. John Feedwell says so!"

Sam Skimpem's Ration

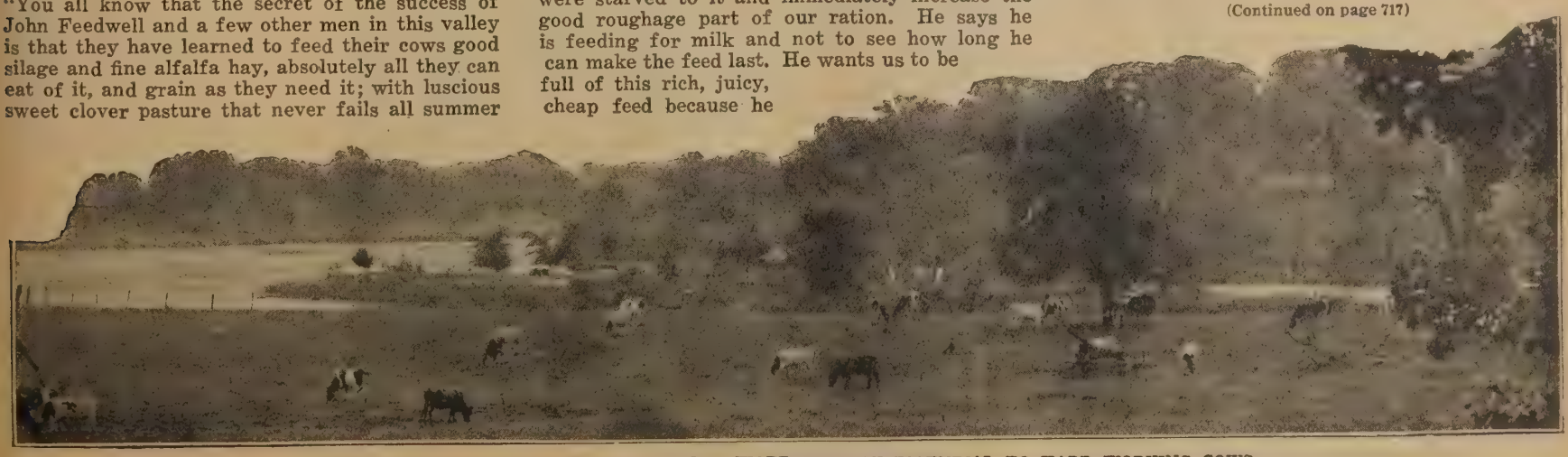
	For cows weighing: 1200 lbs.	900 lbs.
Corn silage	30 lbs.	24 lbs.
Alfalfa hay	10 lbs.	8 lbs.
Ground corn and oats	5 lbs.	4 lbs.
Daily production	12 lbs.	10 lbs.

Timothy Taken-In's Ration

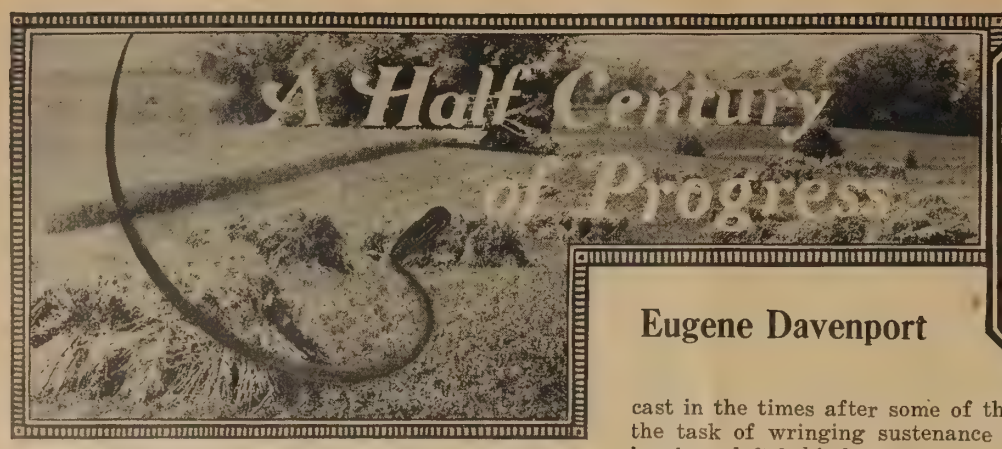
	For cows weighing: 1200 lbs.	900 lbs.
Corn silage	40 lbs.	30 lbs.
Timothy hay	12 lbs.	9 lbs.
Ground corn and oats	9 lbs.	7 lbs.
Daily production	15 lbs.	10 lbs.

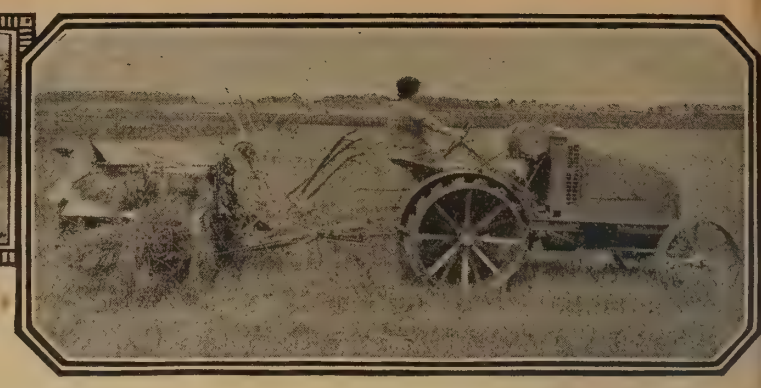
Here Madam Bountiful looked very serious and said: "Yes, it is true, that is the greatest and saddest delusion in American dairying. Half of all the dairy cows in the principal dairy states are fed timothy hay, and half of the rest are fed a mixed hay that is mostly timothy. This never can

(Continued on page 717)



GOOD SHADE, GOOD PASTURE, AND GOOD WATER SUPPLY ESSENTIAL TO HARD WORKING COWS





Eugene Davenport

AGRICULTURE must have stood still a half million years or so when countless generations of primitive men hunted and fished for food, gave way every now and then before advancing ice, hibernated during a glacial period, and thawed out from time to time along with the tiger and the bear. But it is moving now—moving at a rate and with meanings that stagger the judgment and challenge the imagination.

The beloved founder of Hoard's Dairyman, personally known to many of us, learned to reap grain with a sickle, the illustration of which is shown in the above heading. But he lived to see that ancient implement displaced by the cradle, which is a kind of glorified sickle, and that in turn by the self binder, the header, and that moving wonder which cuts, threshes, and sacks the grain at what is virtually a single operation.

W. D. Hoard knew in boyhood what it meant to drive "the critters" to the woods in a hard winter and cut down succulent basswood, red elm, or lusty beech that they might "browse" on the buds and tender shoots and so live through till grass should come again with the opening of another growing season.

But he lived to see and to use the silo and to know how to feed a balanced ration which was not only more economical than any his father had known but a vastly better milk producer as well.

He saw tradition give place to science, superstition to reason, and his single lifetime bridged the gulf between the days when cows were supposed to suffer from "holler horn" and "wolf in the tail" to those of the tuberculin test and the serum treatment, even systematic disinfection.

He saw the Babcock test invented and brought into use and with it the scrub cow began to disappear. He saw the horse shoe that had been heated and put into the churn to drive out the witches displaced by the ripener and the starter. That was when luck gave place to certainty and butter began to have something like a definite flavor, a reliable character, and an honorable reputation.

He saw the milking machine go through a seemingly long but actually brief experimental stage and come into general use. He saw the evolution of the cream separator, displacing crocks, pans, and deep setting. More than all, he saw the weight of buttermaking and cheesemaking lifted off the shoulders of the farmer's wife and laid upon the machinery of the factory.

All this and much more within the brief period of half a century. Why so much and such rapid change in these later days when agriculture had stood still so many thousands of years back in the primitive days of our ancestors?

These are good questions to ponder for they help to keep us hopeful for the future as well as thankful that our lot has been cast in the times after some of the hardness of the task of wringing sustenance from the soil has been left behind.

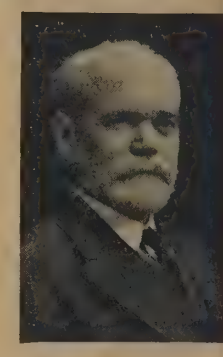
The student of industrial evolution is struck by the almost revolutionary change that came to agriculture as well as to other forms of handicraft when men once learned to use power beyond the strength of their own bodies and employ manipulative operations outside the skill of their own bare hands.

Agriculture in the old days, even of our fathers, was strictly a manual operation. Today we employ the labor of twenty million horses and mules in the United States, equivalent to that of one hundred million men at the usual ratio of five to one, not to mention the tractor and the gas engine.

Not only that but by the use of machinery of many kinds this crude energy is converted into almost superhuman skill, even to the tying of knots and the milking of cows.

What improvements in this machinery within the recollection of men not yet old!

For example, how does the mowing machine compare with the scythe, or even the machine of the 60's cutting a three-foot swath, with the six-foot cut of today? The revolving wooden rake with the modern side-delivery or the pitchfork with the hay loader and the sling? How does the cradle of a half century ago compare with the modern harvester either in ease of operation or efficiency in work?



E. DAVENPORT

In nothing perhaps has there been more significant improvement than in machinery for the fitting and cultivation of the soil.

The modern plow is an achievement of a hundred years of experiment. The old time A drag with two lines of big "teeth" has given place to a small multitude of disks, floating harrows, cultipackers, drills, floats, rollers, and eveners, each adapted to a special service on a particular kind of land.

The coming of the gas engine has all but revolutionized farm labor and life within the last decade or two. It provides cheap and reliable power for pumping, grinding, and the operation of milking machines and separators.

It was inevitable that this new source of power should be geared to wheels and made to afford transportation and power for moving tools. This has given us the automobile, the truck, and the tractor—machines whether for pleasure or for work that our fathers never dreamed of.

It was inevitable, too, that the gas engine should be hitched to a generator for the production of that most convenient and fluid form of power, electricity.

Gasoline or kerosene now gives us not only water under pressure, but it provides light for the house and barn, operates the washing machine, the mangle, the flat iron, the vacuum cleaner, and the ice machine for the family.

The telephone and the radio, especially to the farmer, cannot be counted as luxuries even if the phonograph should be so counted. For the business of the world could not now be conducted on the plan and with the facilities that served in Washington's time.

George Washington, father of his country, sleeping peacefully at Mount Vernon! How little would he recognize in modern life, even upon the farm, if he could come back to us! And the same could be said of Lincoln, gone but half a century. All of which means that we live more in a year these days than men ever did before, commanding forces whose existence was not suspected when the father of his country gave his farewell address or when Lincoln spoke at Gettysburg.

In nothing that spells racial progress have we progressed so much in the last fifty years as in the free public schools. Instead of the quill pen, the three R's, and wooden benches of our fathers, we now have, in all the better sections, the consolidated school in which the child of the poorest renter prepares for college if he so elects, and aid from the father's door at public expense.

Fifteen years ago the less said about the public highways the better it would look in print. But

(Continued on page 716)



A HARVEST SCENE IN IRELAND

"Ye happy fields unknown to noise and strife, the kind rewarders of industrious life."—JOHN GAY



Old Aunt Mary's

WASN'T it pleasant, O brother mine,
In those old days of the lost sunshine
Of youth—when the Saturday's chores were thru,
And the "Sunday's wood" in the kitchen, too,
And we went visiting, "me and you,"
Out to Old Aunt Mary's?

It all comes back so clear today!
Though I am as bald as you are gray—
Out by the barn-lot, and down the lane,
We patter along in the dust again,
As light as the tips of the drops of the rain,
Out to Old Aunt Mary's!

We cross the pasture, and through the wood
Where the old gray snag of the poplar stood,
Where the hammering "red-heads" hopped awry,
And the buzzard "raised" in the "clearing" sky
And lolled and circled, as we went by
Out to Old Aunt Mary's.

And then in the dust of the road again;
And the teams we met, and the countrymen;
And the long highway, with sunshine spread
As thick as butter on country bread,
Our cares behind, and our hearts ahead
Out to Old Aunt Mary's.

Why, I see her now in the open door,
Where the little gourds grew up the sides and o'er
The clapboard roof!—And her face—ah, me!
Wasn't it good for a boy to see—
And wasn't it good for a boy to be
Out to Old Aunt Mary's?

The jelly—the jam and the marmalade,
And the cherry and quince "preserves" she made!
And the sweet-sour pickles of peach and pear,
With cinnamon in 'em, and all things rare!—
And the more we ate was the more to spare,
Out to Old Aunt Mary's!

And the old spring-house in the cool green gloom
Of the willow trees,—and the cooler room
Where the swinging-shelves and the crocks were kept—
Where the cream in a golden languor slept
While the waters gurgled and laughed and wept—
Out to Old Aunt Mary's.

And O my brother, so far away,
This is to tell you she waits today
To welcome us:—Aunt Mary fell
Asleep this morning, whispering—"Tell
The boys to come!" And all is well
Out to Old Aunt Mary's.

—James Whitcomb Riley.





Light and its Influence on Farm Animals

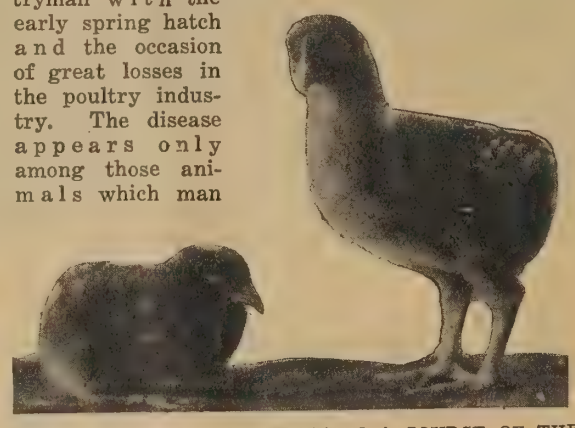
E.B.Hart

EVERYONE knows that plants must have sunlight in order to grow. The direct rays falling on the leaf make possible the building of sugars and starches, and from these substances other compounds that constitute our foodstuffs are built. From the carbon dioxide in the air and from the water and salts in the soil, plants, through the green coloring matter of their leaves, the chlorophyll, and sunlight make the sugars and starches. This carbon dioxide is a gas and is inhaled by the plant through tiny openings mainly on the underside of the leaves. If these pores become stopped up, as they may from particles of dust, the amount of dry matter made by the plant will be decreased. This restriction of growth is often seen in fields located near main highways where clouds of dust are constantly being raised by the automobile traffic. The formation of chlorophyll and the conversion of carbon dioxide and water into sugars and starches cannot take place without *sunlight*. The plant is like a machine run by a motor, the sun. All parts of the machine may be perfect and in readiness but work will not proceed unless the motor is in action.

These are old facts—many years old—and we all knew our *indirect* dependence for life was on the sun, for without the sun no plant life can exist and with no plant life animal life must ultimately cease. But who suspected that we and our animals were more directly the children of the sun and that its rays play a *direct* part in the animal life on this globe. This is a new finding, a finding of the twentieth century, and was developed largely through studies of a disease of animals known as *rickets*.

Rickets is an old disease and a disturbance in the metabolism of the growing organism of such a nature that the salt balance and particularly the balance of calcium and phosphorus in the circulating fluids is disturbed and lime salts are no longer deposited in the bones. It is a disease found in cities. It is most prevalent in those nations whose wealth and industrial development have brought about most fully the substitution of artificial conditions of living for the simple conditions which nature intended. It affects man and all classes of mammals. The disease never occurs among peoples living under natural conditions. Savages may starve and become victims of pestilence, but they do not develop rickets. It is said that the disease does not occur in the native parts of Africa and is exceedingly rare in China and Japan. It occurs rarely in the tropics and is rare in the Arctic regions.

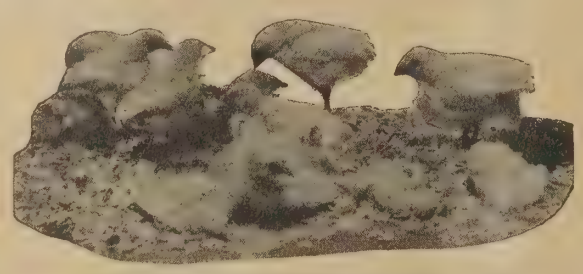
Rickets is a common disease among pigs, puppies, lambs, and kids, but less common among colts, calves, and rabbits. It is the scourge of the poultryman with the early spring hatch and the occasion of great losses in the poultry industry. The disease appears only among those animals which man has been able to make captive or slave and upon which he has been able to impose successfully artificial conditions of environment and diet as he has developed for himself in his struggle for existence.



GREEN FEED NOT SO EFFECTIVE A SOURCE OF THE ANTIRACHITIC FACTOR AS LIGHT

Two birds of the same age (37 days), the one on the left, 85 gms. in weight, received our ration plus green clover daily (75 gms. of green clover crushed with 100 gms. of our ration); the bird on the right, 135 gms. in weight, received the same ration as the one on the left but in addition 10 minutes daily exposure to ultra violet light. The contrast is marked and illustrates how important light is in the growth of the chick.

Osteoporosis is rickets in the mature animal. The same factors that produce rickets produce osteoporosis—porous bones. In the latter the lime salts once deposited in the bones are dissolved away faster than they are replaced and a porous, easily breakable bone results. Further, in the blood the lime and phosphorus do not remain in normal relation. The same factors that operate in causing rickets operate in causing osteoporosis. This trouble is most prevalent in milking animals and affects the nursing mother and the dairy cow. So often we hear of women nursing their young suffering from decay of the teeth, looseness of the teeth, etc. This is the result of greater lime losses from the skeleton than there is replacement through the food supply. Rickets and osteoporosis are old diseases. Osteoporosis is not so readily detected as is rickets, which exhibits itself in knocked knees, bowed legs, and other bone deformities, as well as in retarded growth. It is in the retarded growth that its effects are most seriously felt by the producer of live stock and that is one reason why it becomes an important matter for the farmer. Retarded assimilation of lime as in osteoporosis also affects milk secretion in time and here is where the problem touches the dairyman. His winter feeding with low lime roughages grown on acid soils is a part of this problem.



NO. 1. LACK OF SUNSHINE OR ITS EQUIVALENT AS A CAUSE OF RICKETS

This group of chicks received yellow corn 99, common salt 1, and skimmilk *ad libitum*. They were kept in the basement of the poultry building and away from direct light. Leg weakness developed in 5 weeks and in 7 weeks practically the entire group was dead.



NO. 2. SUNSHINE IN THE PREVENTION OF LEG WEAKNESS OR RICKETS

This group of chicks received the same ration as those shown in No. 1 but were kept out of doors in direct light. They received no green feed and no scratch. Their ration was yellow corn 99, common salt 1, skimmilk *ad libitum*, and sunshine. They were photographed at 5 weeks of age and were in fine condition. No leg weakness had developed at that time and did not develop throughout their entire life on this low lime ration.

Cod Liver Oil Cures Rickets and Osteoporosis

As a cure for rickets or osteoporosis physicians have long recognized cod liver oil as a potent agent. It has been used from time immemorial as a folk remedy on the coast of England, Holland, and France. Cod liver oil was introduced into France as a specific by Bretonneau and its use became general through the teachings of Trousseau.



E. B. HART

Trousseau was convinced that cod liver oil was also an effective agent in the cure of osteoporosis. But it remained for investigators in this century to definitely show that cod liver oil can control the distribution of lime and phosphorus in the skeleton tissue and be responsible for the building of strong bones.

Mellanby in England, working with puppies, was the first to show that certain food materials had antirachitic properties and that among the oils cod liver oil was of the greatest potency in this respect. Further, he showed that the vegetable oils, such as peanut, olive, linseed, and cocoanut, had little or no power in protecting the animal from rickets. All of Mellanby's experiments were performed indoors and *this point is of the greatest importance.* Another English experimenter, Findlay, in 1908 published his work on the production of rickets by confinement. He did not believe that rickets was a dietary deficiency disease as was believed by Mellanby for the reason that puppies confined to the same ration but kept indoors developed this disease, while those allowed to play daily in the open air did not develop it. But Findlay missed the point. He stated with great positiveness that rickets in his indoor puppies was due to lack of exercise, which usually goes along with confinement, while as a matter of fact it was the *lack of direct light of the sun* that was the preventive and not the exercise. How often have we heard visitors inspecting our animals say the same thing, "Why they are stiff and do not grow well because you do not give them exercise".

As already stated, many observers have noted the tendency of rickets to appear in children who live in crowded, dark, ill ventilated rooms of city dwellings; but most of these observers became fixed with the idea that the bad influences at work were poisonous gases or infection and failed to consider the principal curative force, which is sunlight.

Sunlight Cures Rickets and Osteoporosis

Even before Findlay's experiments, Palm in 1890 recognized the full importance of sunlight in the eradication of rickets, but, like many such discoveries, it went unheeded. It was 20 years later that Buckholz attempted to treat children, suffering from rickets, by means of light from artificial sources—the carbon filament electric light bulb—and reported favorable results. Because of a lack of accurate information concerning his work, this great discovery of the important relation of light to rickets and its prevention is usually assigned to Huldschinsky who in 1919—only five years ago—reported that the ultra violet light exerts a curative action in rickets. He treated four children who had advanced rickets with the emanations from a quartz mercury vapor lamp and found



THE RESULT WITH THE BALANCED RATION OF 1924

The same wheat ration proportions as used in 1907 but supplemented with bone meal 2 per cent, common salt 1 per cent, and raw cod liver oil 2 per cent. The cow was sleek in appearance, active, and apparently in normal nutritive condition. She produced twins which were strong and active. The cod liver oil supplied the antirachitic factor. Sunlight would have done the same thing, and that is the farmer's common source of this factor.

through the use of the x-ray that at the end of four weeks, lime salts had deposited at the ends of the bones. Other investigations with *sunlight* soon followed and its favorable action was also established. Further, it is now known that only the rays of short wave length are active in this phenomenon of control of the deposition and retention of lime salts and that the light that falls through our ordinary windows is robbed of its effects because the waves of short wave length are absorbed. Animal life in a room well lighted through ordinary window glass is about as safe from contracting rickets as life in a cellar. In this article I am speaking of the effects of direct sunlight or of ultra violet light, and not the diffused light of our rooms.

Thus, there is now established the fact that cod liver oil and sunlight are equally powerful in controlling the assimilation and retention of calcium and phosphorus by animals. In cod liver oil there exist two substances of importance to animal life—vitamin A and this antirachitic factor. In sunlight there exists but the one factor, the antirachitic factor. This is the present state of our knowledge and it may be incomplete. Further, *it is now established that this antirachitic factor is essential for growth.* All the factors of nutrition may be present in a diet but without this factor growth will not proceed normally. Further, in mature lactating animals an absence of this factor will ultimately lead to decreased milk production.



LEG WEAKNESS OR RICKETS IN OLDER BIRDS

The group of birds to which this individual belonged received skimmilk *ad libitum*, white corn 97, calcium carbonate 2, common salt 1. They developed leg weakness (rickets) after confinement to the ration for 5 or 6 weeks. Leg weakness will develop on any ration of common natural foods if that ration is low in lime and phosphorus and the antirachitic vitamin. It can be prevented by an abundance of sunshine or by cod liver oil or by egg yolks or by a proper adjustment of the mineral content of the ration in the presence of a small amount of the antirachitic vitamin.

The distribution in foods of the antirachitic factor appears to be limited, although investigation of this point is also limited. It does occur in fish liver oils, in hen's egg yolks, in green plant tissue, and finds its equivalent in sunlight or ultra violet light. Probably *sunlight*, after all, is our common practical source of it. Further, the potency of daylight in this respect is not so great in the winter time as it is in summer.

Relation of Light to Poultry Raising

The absence of the antirachitic factor in the ration has effected the poultry industry enormously. A successful broiler industry operating every month in the year has not been established, because of ignorance in poultry nutrition. Many an early spring hatch has been lost because of our lack of knowledge of the importance of the antirachitic factor in chick rearing. The chicks died of leg weakness or rickets. In this disease the bird flutters and squats frequently; the feathers become badly ruffled; the ash content of the bones is markedly reduced below normal; the lime and inorganic phosphorus are not in normal relations in the blood; growth ceases and death soon follows. The ration being fed such chicks may be a good one in our ordinary accepted terms and may consist of yellow corn and skimmed milk, together with plenty of lime and common salt, but nevertheless failure results because these foodstuffs carry too little of the antirachitic factor. If to such a ration cod liver oil is added to constitute about 1 per cent; or, better, if these early hatches are placed out in the direct sunlight, then growth becomes normal and the chick a normal specimen. Even the addition of one egg to the ration for 20 to 30 chicks will prevent leg weakness under confinement. The poultryman has long recognized the desirability of getting chicks out of doors as early as possible, but he has also thought, just as Findlay thought in regard to his puppies, that the factor that was operating was the need of exercise or fresh turned up ground on which they could work; while the actual factor operating *was the direct rays of the sun.*

Recently we have constructed a successful ration for rearing chicks under confinement which consists of 80 parts of yellow corn, 20 parts of middlings, 5 parts of pearl grits (ground marble), 5 parts of raw bone, 1 part of common salt, and skimmed milk *ad libitum*. By introducing the middlings and thereby raising the phosphorus content of the ration and, further, by introducing the pearl grits and raw bone and thereby raising the calcium and phosphorus content of the ration, we are able to build a ration which will successfully rear baby chicks in confinement for seven or eight weeks without their developing rickets (leg weakness). This ration, however, is deficient in the antirachitic factor and attempts to carry the chicks indoors or without the provision of the antirachitic factor for too long a period of time will fail. On the other hand, if 0.5 to 1 per cent of cod liver oil is added to such a ration the chicks can be reared through to maturity indoors and develop into normal specimens. Further, this ration *supplied out of doors* will give excellent results without the use of cod liver oil, *because of the access to sunlight.* The ration can even be simplified where sunlight is available. We have had successful rearing of baby chicks to maturity where the ration consisted only of 99 parts of yellow corn, 1 part of common salt, and skimmed milk *ad libitum*, but the birds *were kept in the sunlight.* No extra amounts of lime or phosphorus were added, showing what a tremendous influence an abundance of the antirachitic factor can have even in the presence of low supplies of lime and phosphorus in the ration.

Since these facts in regard to chick rearing have become known, one poultry man in New Jersey has made plans to produce 20,000 broilers every eight weeks in the year. He intends to use cod liver oil. He can do it with cod liver oil, egg yolks, sunlight, or the light from a quartz mercury lamp. While green plant tissue possesses the antirachitic factor, not enough of it can be consumed by a young chick to ward off leg weakness.

Light and Pork Production

Swine suffer from rickets, particularly in the winter time, although they are not so sensitive to this trouble under housed conditions as are chickens. The extreme condition of rickets exhibited by crawling on the knees is not so likely to appear with this class of farm animals as is retarded growth. That daylight influences the rate of growth and the rapidity of the development of rickets in swine, we have recently demonstrated experimentally. Two groups of young pigs receiving the same ration of yellow corn and skimmed milk, supplemented with limestone and common salt, differed in their environment only in that one group was kept indoors in the dark, while the other group was allowed access to an outside pen fairly well lighted by direct sunlight. Those receiving the daily bath of sunlight grew at a faster rate than the other group and exhibited no signs of stiffness or rickets which the group kept in the dark did show. In winter feeding of swine access to a lime rich legume hay such as alfalfa and clover will greatly aid in preventing this trouble. The application of the same principles in feeding swine under confinement that we have applied in constructing a baby chick ration, namely, providing generously of lime and phosphorus in the ration, will go a long ways in preventing rickets and retarded growth in swine kept under housed conditions in the winter time.

Relation of Light to the Dairy Cow

Our dairy cows suffer from osteoporosis which I have said is analogous to rickets. Under long winter confinement and long milking they draw upon their reserves of lime in their skeleton to meet the needs for milk production. There results no doubt a porosity of the bones and ultimately a lowered milk secretion. In lime balance experiments with cows we, as well as others, have established many times that on rations like the grains, corn silage, and timothy hay, the cow loses more lime than she receives and that the addition of lime to the ration does not lead to its further utilization. *These experiments were conducted indoors* and out of the influence of direct light and consequently do not tell what might have resulted had the animal received lime, *and in addition been out of doors.* Further, we have established that this same situation—loss of lime—may prevail even if a high lime roughage is used such as alfalfa hay, especially where the hay has been unduly exposed during the curing processes. Further, it is now known that if the alfalfa hay is *properly cured*, that is, cured under caps, then it retains more of this antirachitic factor, and fed indoors during the winter will successfully prevent a milking cow from losing more calcium than she is receiving.



COW AND CALF SHOWING RESULTS WITH THE BALANCED RATION OF 1907

Protein and energy the sole factors emphasized at that time were supplied by the use of a ration made from wheat straw, wheat meal, and wheat gluten. Common salt was allowed *ad libitum*. The cow was shaggy coated, slow, and sleepy in movement and had a tendency to drag the hind feet. The calf was born prematurely and died. In other cases the calves were born prematurely, were extremely weak, and died soon after birth. This ration was deficient in lime and in vitamin A.

Later experiments with cows showed that on a ration made of grains, corn silage, and *green grasses*, calcium equilibrium could not be maintained with a liberally milking cow because the lime supply was too low, but that it could be maintained if there were added to the ration certain lime salts. *Again these experiments were conducted in the basement of our dairy barn and away from the influence of direct light.* In fact these newer ideas of the relations of light to calcium balances open new questions and await new experiments. *All the mineral balance experiments with dairy cows up to the present time*, so far as I am aware, have been conducted in rooms lighted through ordinary windows and where the direct light could have no influence. It is apparent then that our dairy cow out on green pasture and in the light may hold herself in calcium equilibrium without extra additions of lime because of the potent influence of the sun in this respect; this condition represents a situation entirely different from where she is confined in a barn. It is very apparent to us from other work that the sunlight is much more potent in respect to its antirachitic effects than is green material, although we know that green material does contain some of the antirachitic factor.

Recent Experiments With Milking Animals

The past year we have studied the problem of the influence of light upon milking animals, using goats for our experiments, and we have found that light does play a tremendously important part in the assimilation of lime in mature milking animals. These milking goats, put upon rations of grains and straws, but fortified with lime salts, would immediately show greater losses of lime than they were receiving, but this resulted when they were confined indoors and away from the influence of direct light. On the same ration but under the influence *for twenty minutes* daily of ultra violet light which finds its equivalent in sunlight, the animals immediately made greater utilization of their lime and passed from negative balances to a storage of this element.

The farmer with his dairy cows may well continue to give them extra lime, not only in the winter but even when they are on summer pasture, because so many farmers report favorable results secured from its use. But it remains yet for science to determine whether these animals on summer pasture and with their daily baths of sunlight are in need of extra lime. Much will depend upon the quality of the pasture in respect to its lime and phosphorus content. Further, it must be determined whether, in the winter daylight when the amount of ultra violet light is very much less than in summer daylight, the influences of the outdoors will be effective in the assimilation and storage of lime.

There is a rapidly growing trade in the use of minerals, mainly lime and phosphorus, as supplements to the rations of farm animals. The provision of rations rich in lime and phosphorus such as the legume hays and grain rations containing wheat bran or the use of mineral supplements to rations poor in lime and phosphorus such as the poorer classes of hays and unsupplemented grains is, of course, sound practice. It would appear at the present time that supplementing the ration of dairy cows on summer pasture with additional lime is good practice because low lime containing grasses constitute our common summer pasture. Where the summer pasture is a high lime legume such as sweet clover, it certainly is yet a question whether additions of lime would be needed. In winter feeding of dairy cows additions of lime, even to legume hays, will do no harm and may perhaps be a benefit. So much hay is badly cured with the resultant destruction of the antirachitic factor and, further, the limited access in the winter time to sunlight of low antirachitic properties, makes the provision of a liberal lime and phosphorus ration a desirable procedure.



How to Increase Profits from Cows

E. H. Jones

A RETROSPECTIVE view of the dairy industry over a period of years impresses one with the fact that its evolution has been a process of steady development. The time when old Bess freshened in March or April, gave a pailful of milk on flush June pasture, and after an ever-diminishing milk flow through the late summer and early autumn closed her lactation period in November, to spend the winter on dry cornstalks and timothy hay, is within the recollection of many of us who dislike to admit that we are yet anything but in our prime.

Nowadays that highly developed creature which we call the dairy cow gets a vacation of only a few short weeks and all the rest of the time is being urged by special care and the consumption of properly balanced rations toward the production of a creditable amount of milk or butterfat. Not every cow would respond to the treatment and prove herself worthy of this effort and attention. Far from it! How, then, could the average dairyman not equipped with testing apparatus or the technical knowledge of its use differentiate between the boarder cow and the profit-maker?

This query was answered very practically by the organization and promotion of local cow test associations. The Dairy Division of the U. S. Bureau of Animal Industry at once recognized the value of this movement and lent its aid toward the development of it. How well the writer remembers riding up and down the fertile Mad River Valley and over its adjacent hills with Helmer Rabild, who then was identified with this branch of governmental activity, together with former commissioner of agriculture, Orlando L. Martin, and assisting to organize one of the first associations in Vermont.

It is difficult to discuss the value of this work without repeating many of the arguments so often made use of that they seem more or less stereotyped. The idea may not appeal particularly to the wealthy farmer who is in position to do systematic test work upon the farm, nor to the trading farmer whose herd is here today and gone tomorrow, but the long-distance dairyman who keeps his business upon an even keel, one year with another, and whose prime motive is the production of the most butterfat at the lowest cost, can, in my judgment, attain his objective more efficiently by this than by any other method.

The farmer who milks his own cows by hand may have a general idea of quantity by differentiating between the large "mess" of milk and the small one as he sees it in the pail, but the most deluded of all mortal men is he who continually milks two or more cows into the pail of a double unit mechanical milker without knowing what part of the aggregate quantity should be credited to each cow. He is the merriest clown of all in this game of blind man's buff. The monthly visit of the cow tester might make him a trifle late to supper, but it certainly would reveal the presence of the cow whose milk was insufficient in quantity to cover the silver dollar in the bottom of the milk pail as well as the one whose milk was so thin as not to obscure the sight of it.

Our cows are our individual factories for converting the products of our farms together with the concentrates which we purchase into milk and butterfat. Who can conceive of an industrial corporation maintaining a chain of factories in blissful ignorance of their relative standing in volume and cost of production? Ours is just as truly a business proposition and we can well emulate the example of those who adhere strictly to the best methods of business. It is "good business" when a farmer compares his monthly record of the production of his individual cows with the record of its cost and governs himself accordingly in formulating and fixing the amount of the ration for the following month. Common sense and good judgment must be exercised, however, and due allowance made for variations in production due to causes other than feed. It is generally conceded that the production of a considerable percentage of dairy cows is too small to yield much if any profit above cost of maintenance and if, by means of these discriminatory efforts, the lower one-third could be eliminated, it would be a long stride toward elevating the dairying to a business of more profitable plane. A study of cow testing associations which are on record files in the Vermont Department of Agriculture register facts which are as interesting as they are valuable. In three of the associations which have been operating longest, it was noted that a larger average amount of grain was being fed than in most of the others. Notwithstanding being charged with an expensive grain ration, the cows in these three associations averaged eighteen pounds more butterfat and not only paid for the extra grain but actually returned $8.72 more per cow above cost of feed than did the cows in the other associations. This emphasizes the fact that cows fed liberally and intelligently pay a higher net profit than those fed sparingly. It should be understood, however, that there is a limit in individual cows as to their capacity for yielding profitable returns, and the following data shows the line of demarcation between feeding for profit and feeding for highest possible production:



E. H. JONES

No. of herds	Average lbs. grain per cow per year	Income above cost of feed
3	335	$48.41
7	1235	62.09
4	1841	85.17
4	2328	63.10
2	3316	30.66

This table indicates that cows which received somewhat less than a ton of grain each per year were better profit makers than those which received more and certainly better than those which received less.

The examination of a table showing the relation of freshening date to income above feed cost shows that while a larger percentage of cows in Washington County freshened in winter and spring than at other seasons of the year, fall freshening cows yield a perceptibly higher profit. The following figures represent income above feed cost per cow: Summer freshening, $58.28; spring freshening, $69.28; winter freshening, $85.04; fall freshening, $91.16.

Butterfat production was not only greater from fall cows, but prices were higher during the best months of their lactation period, which more than offset the winter grain bills.

One of the most interesting facts disclosed by the study of Vermont cow test association records is the benefit derived from the use of a prepotent sire.

The leading cow in an association of over 600 cows finished her year's work with 10,034 lbs. of milk and 516.5 lbs. fat to her credit.

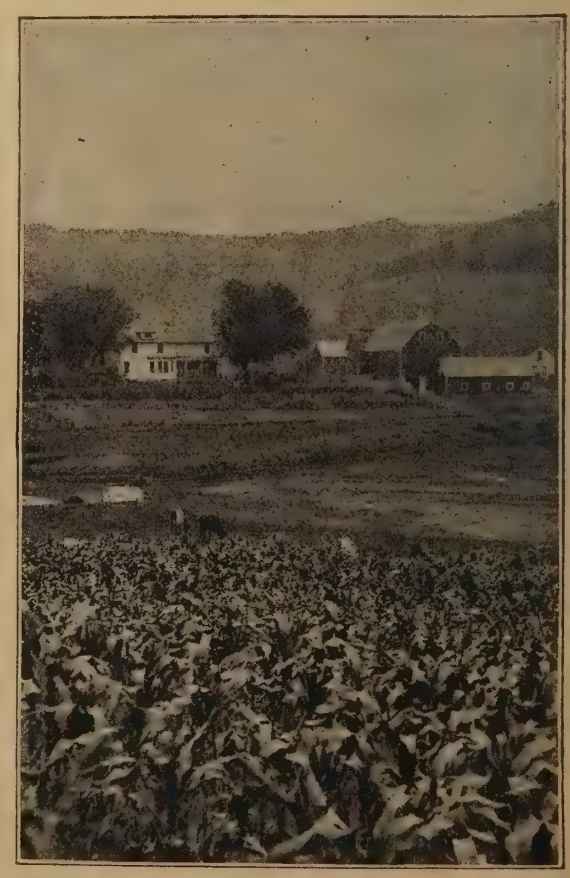
Six others in another herd were largely responsible for that herd winning second place in butterfat production. Sixteen had an increase of 115.7 lbs. of fat over the average annual production of the cows in the association.

The above mentioned cows were all daughters of one bull which was bred by the Vermont Experiment Station. Their dams were mostly rather inferior animals which proves, without question, that this uniformly high production is due entirely to the prepotency of the bull.

How would his value ever have become known if the owners of these cows had been groping blindly along in the old way instead of using the scales and Babcock test?

The crux of the whole matter is that the dairyman who is sufficiently studiously inclined to carefully study his cow test association records is in position to know for a certainty just where he stands with his individual cows. The facts disclosed by the records to which reference has been made are based on practical experience and therefore constitute a sound basis of argument. Progressive dairymen agree that a full measure of success is possible by the practice of intelligent breeding and feeding based upon cow testing association records. The truth of this statement is borne out by the development of the dairy industry in Denmark during the past two or three decades. Reliable statistics indicate an increase in the annual milk yield of nearly 2,000 pounds per cow, and the hereditary transmission of the quality of giving milk rich in fat has been established by these records.

The Vermont Department of Agriculture registers its fullest approval of this movement in the firm belief that its general adoption would be a distinct benefit to the dairymen of the state and nation.



In the quiet of the hills and growing crops men think as they breathe the air of peace and good will.

National Dairy Association

The meeting of the National Dairy Association recently held in Chicago was well attended and the report of the secretary showed a net loss of approximately five thousand dollars for the year. This loss was due to the poor attendance at the recent show held in Milwaukee. Emphasis was given to the necessity of a permanent home for the show, and it seems that this dream may come true. Chicago men of affairs have appropriated $25,000 to make a survey of agriculture as it may touch upon the desirability of building a structure suitable for holding the National Dairy Show and other like agricultural conventions and events. The proposal is to erect a building that would house not only the exhibitions and conventions, but that would contain office room for various phases of the agricultural industry. Chicago sees itself as the capitol of agriculture, and it is believed will provide a building suitable for this purpose.

Invitations were presented for next year's show by Indianapolis, Kansas City, and Chicago. Indianapolis boosters spoke of the splendid accommodations at their state fair park and the co-operation that would be given to make the show a success in point of attendance. The accommodations offered are excellent, as were also those presented by Kansas City. Chicago urged the Dairy Show "to come back home" and offered the use of several large buildings on the Lake Front, including the furniture exposition building and the new Riding Academy building. It is expected the executive committee will make its decision this month.

Resolutions were adopted in memory of B. H. Rawl, as also approving the proposal for a Building of Agriculture in Chicago. The officers were directed to call a conference of representatives of a number of the larger shows and of the various breed associations for the purpose of providing a revised and uniform classification of cattle for premium awards.

Owing to the retirement of Directors Reymann, Wills, and Hallowel, three new directors were elected in their places. The balance of the directorate was re-elected.

Milk Producers Meet at Philadelphia

HOARD'S DAIRYMAN:—Four hundred dairymen from forty counties in Pennsylvania, New Jersey, Delaware, and Maryland attended the eighth annual meeting of the Inter-state Milk Producers' Association at Philadelphia, December 1 and 2. These men met, heard reports, elected officers, discussed addresses delivered by outsiders, banqueted, and returned home in perfect unison because things are going good in the territory served by the association. They are not getting rich but when they consider dairy conditions in other sections they are satisfied and have left the management of the Inter-state in the hands of the same officers for another year.

President H. D. Allebach, in his annual address, pointed to the fact that the basic price of three per cent milk had been held unchanged throughout the year. For producers in the 51—60-mile zone this has meant $2.37 net, not so high as last year but considerably better than lots of places. Surplus prices this year have been adversely affected by the oversupplied butter market and for the first nine months netted the producers $1.634 for Class One and $1.376 for Class Two surplus milk.

Fearing an oversupply of milk this fall the officers of the Inter-state held meetings in practically every local to explain what it would mean at this time. Demand, due to unsettled business conditions, has been below normal and the producers accepted these conditions so that Philadelphia today is a good market without a great surplus. Failures of milk dealers during the year were not so numerous as last year.

Secretary R. W. Balderson, in his report of the year's work of the Inter-state Dairy Council, outlined in a broad way how it had spent over $140,000 during the year and still had $24,000 left from its year's income. Educational health work in the schools, community centers, and similar places, which has been largely responsible for the ten per cent yearly increase in the city's milk consumption, was carried on as in previous years but the big work of the year was done by the Quality Control Division in applying the producers' sanitary regulations adopted at the annual meeting last year.

More than thirteen thousand farms were inspected during the year by the field force of the Council and approximately two hundred dairymen were denied the privilege of selling milk to dealers co-operating with the Inter-state. Temporary permits to ship milk have been issued to over fifteen thousand producers and nearly three thousand have received permanent permits.

Considerable interest was shown in the newly proposed butterfat differential. The Guernsey breeders felt that four cents for every one-tenth of a point was not enough to pay high testing milk, while the Holstein-Friesian Association had its ideas on the subject. These two interests met with the officers of the Inter-state and it was agreed that an effort should be made to base the price on 3.5% milk with a five-cent differential down and up from that point to four per cent. Between four and four and a half per cent six cents was considered the right differential and eight cents for every one-tenth of a point above 4.5. By a vote at the annual meeting it was decided that this plan should be tried.

Resolutions were passed favoring the enactment of legislation that will provide for a system of agricultural observers in foreign countries under the direction of the Federal Department of Agriculture and reaffirming the one passed at the recent milk federation meeting in Milwaukee opposing governmental interference with co-operatives. Backing up the active work of the state departments of agriculture for the eradication of tuberculosis among dairy cattle, the association went on record as approving a regulation which will require all dairy herds to be tuberculin tested.

During the year the membership of the Inter-state was increased 1,753, which brings the total to nearly 20,000 divided into 270 local units. It is estimated their dairy products have a farm value of about fifteen million dollars, Philadelphia alone consuming over 700,000 quarts of milk a day.

Finances of the association are in excellent shape. It works under a budget plan and has not only kept within the limits but accumulated a surplus during the year.

Pennsylvania. THOS. H. WITTKORN.

In a "Ball-Band" Arctic

You Can See Some of the Reasons for More Days Wear

Old Man Winter is a bully. He gets outside your windows and dares you to come outdoors. And when you venture out, Winter doesn't run away. He attacks.

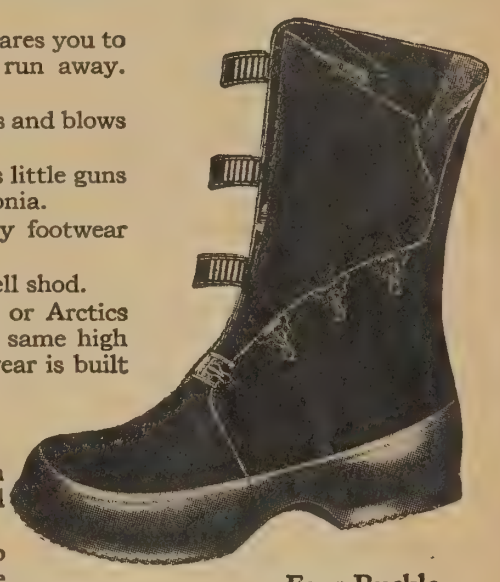
He blocks your path with snow. He puts ice beneath your soles and blows a freezing blast at your ankles.

He uses every weapon from a slip and fall to a frozen toe. His little guns cause discomfort and pain. His big guns are colds and pneumonia.

He is tough. One of his tricks is to wear out and destroy any footwear but the strongest.

When you walk out to meet Winter on his own ground, go well shod.

Your father before you doubtless wore "Ball-Band" Boots or Arctics when he fought his way to barn and field and town; and the same high quality, the same protection against cold and snow and hard wear is built in the "Ball-Band" Arctics you can buy today.



Four Buckle Excluder Arctic

Examine a "Ball-Band" 4-Buckle Arctic

Take it up to the window. Put your hands in it. Feel the smooth woolen lining—not a wrinkle or a loose spot in it—the rubber and the lining are one—they cannot be separated.

Now look at the tongue or gusset that comes up over the instep and protects the front doubly. It is not a separate thing like the tongue in your shoes but it folds, leaving no crack, crevice or seam for the water to get in.

The strong heavy sole will attract your attention. See how neatly it is joined to the upper without a seam. You know it will never break away. The thickness, toughness and flexibility of the sole assure you of long wear.

See the reinforcement at every bend and wherever the strains come. No wonder "Ball-Band" Arctics wear so long.



One Buckle Arctic

Every "Ball-Band" Arctic passes through 33 skilled hands

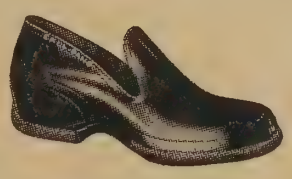
You realize when you examine one of these arctics what skill is required to put together the many pattern pieces of rubber and cloth that make an article of footwear so warm and so durable.

Each of the 33 workmen does his work by hand and he is expert at his particular part of the work.

Over ten million men and women are careful to look for the Red Ball—the "Ball-Band" Trade Mark, for they know that it means comfort, warmth and More Days Wear.

We make nothing but footwear and we know how

MISHAWAKA RUBBER & WOOLEN MFG. CO.
313 Water Street Mishawaka, Ind.
"The House That Pays Millions for Quality"



Boys' Rolled Edge Esko Slipper

"BALL (TRADE Red Ball MARK) BAND"
Rubber & Woolen
FOOTWEAR

Look for the RED BALL

Look for the Red Ball. It is on every pair of "Ball-Band" Rubber and Woolen Footwear. If your dealer does not handle "Ball-Band" write for dealer's name and the free booklet, "More Days Wear." It shows many kinds of Boots, Arctics, Light Rubbers, Work Shoes, Sport Shoes, Wool Boots and Socks—something for every member of the family.

EDITORIAL COMMENT



IT WAS IN A STABLE

The joys and the pleasures of the Christmas season are at hand. The snowfields lie sparkling under the moonlight, crisp and Christmasy. All the ice crystals on the trees and bushes hang glistening, as if expectant of the breeze that will set them ringing like a thousand silver bells, "Peace on earth. Good will toward man".

Some nineteen hundred years ago, a mother wrapped her first born in swaddling clothes and laid Him in a manger. Shepherds from the hills and wise men from the East came to the homely stable to worship the Child as their Savior and King. This auspicious event took place in humble surroundings, yet it has become the central fact of life about which the centuries revolve and from which time itself is reckoned. It is this event that we celebrate at Christmas time and it would be well if we were to turn back to the story as told by Luke and read it to our children.

Through the birth and life of this great Teacher there was given to the world the fundamental principles of the successful living of people in organized society. No one has ever been able to improve these fundamental principles of living, though many have tried to do so. If we celebrate with honor the birth and life of Christ, it seems that we should also at Christmas time give serious thought to a consideration of these fundamental principles of life as a correct principle upon which to base our anticipated happiness.

The pursuit of happiness is a great occupation of the human race. If in this pursuit of happiness we disregard the greatest standards ever given and set up false standards of our own, is it reasonable to suppose that we will achieve the greatest happiness? We will do well at this Christmas time to study the standards whereby we hope to gain happiness.

Christmas Day is peculiarly the day of children, for the child knows the Christmas spirit and lives it. Only as we entertain this spirit and give happiness and pleasure to others do we gain surcease from sorrow and bitterness. The Santa Claus legend is beautiful because it removes all sordid thought of giving. Both giver and receiver are warmed by the spirit and are lifted onto a higher plane of love and service. It is this unselfish expression of thoughtfulness, kindness, and consideration that measures our appreciation of the Christlike principles of life.

We think that the families of farmers will say at the close of Christmas Day that "Dad" has been a little better to them on that day. We think that if the live stock could speak, they would say that they, too, know it has been Christmas Day because of their having been better cared for.

FACTS AND FANCY

In the Berrien—Cass, Michigan, Cow Testing Association a monthly circular is being issued. In November figures were published showing the value of a high protein feed in connection with the home grown grains. This caused ten members to change their rations. The cows being fed the old way dropped 33 per cent in production while those being fed the new way held their previous production.

This is but one of many cases where dairymen through an improved system of dairy herd management and development are making use of improved knowledge. The improved system is the cow testing association and the improved knowledge in this case is the scientifically sound fact that cows cannot make full use of their inherited tendencies to produce milk unless adequately fed.

The cow testing association employing a competent tester and with members who will make use of the facts brought out in the course of the association work, is one of the few really great means of improving the dairy industry. A membership in a cow testing association is worth more to a farmer than all of the political spellbinding during the past half decade has been worth to him.

Advertise a meeting and organize a cow testing association and you are lucky to get enough there to sign up half enough members. Advertise a meeting at which time the Hon. Whosis will expose all of the corruption at Washington, at the state capitol, and at the county court house, and tell how these things will be purified, and the house is packed.

Funny, isn't it?

UNSELFISH LEADERSHIP

Great service is rendered to states and industries when men or groups of men work together harmoniously, unselfishly, and with understanding. The Wisconsin Dairymen's Association has had such men in its leadership and ranks since its formation. It is fifty-two years old, and in that time not a single man has attempted to advance himself at the expense or detriment of this association. The development of the dairy industry of Wisconsin is an outstanding example of what can be accomplished with unselfish and intelligent service. Its organizers, its early pioneers, its leaders to the present time have never considered but one thing and that is how to proceed to build a sound and profitable dairy industry in Wisconsin.

W. D. Hoard, founder of Hoard's Dairyman, in the nineteenth annual convention of the Wisconsin Dairymen's Association, said, "My friends, I do not believe there was ever an association like it in the history of Wisconsin, not a single jealousy, not a single inharmonious purpose, each man with his eye upon the object in view; single-eyed and single-hearted, striving to promote the honor and prosperity of Wisconsin in this line.

"By and by these men will lay down their bundle and be gathered to their rest; they can go with this feeling of satisfaction, that they have not lived in vain; that over this broad and fertile state for years will be seen the evidences of their thought and their purpose and the result of their unselfish labor."

What is needed in this country at the present time is more men in positions of leadership that forget themselves and are concerned only with the industry which they are attempting to build. Harmony, team work, and all that is desirable comes when men think of the industry only and forget themselves.

THE PRESIDENT'S MESSAGE

President Coolidge, in his message to Congress, does not submit any concrete proposals for agricultural legislation, but states that he expects to report to Congress, in time for this session, such legislative remedies as his recently appointed agricultural conference committee may recommend. He briefly discusses the improvement in agricultural conditions and the better balanced supply of agricultural products, but he does not believe that "agriculture has recovered from the effects of the war period or that it is permanently on a prosperous basis. * * * Every effort must be made to restore and maintain agriculture to a complete normal relation with other industries".

The President does not believe in catch phrases or unwarranted promise. He apparently means to emphasize that farming is governed by the same economic laws as other industry and that it would be unwise to attempt legislation that would fix prices or that would artificially support markets. "Still," he says, "we can so order our own affairs, so protect our people from foreign competition, so arrange our national finances, so improve methods of distribution, as to provide a better working machinery for the transaction of business with the least possible friction and loss."

On marketing, the President says: "Everyone knows that the great need of the farmer is markets. The country is not suffering on the side of production. Almost the entire difficulty is on the side of distribution. This reaches back, of course, to unit costs, and diversification, and many allied subjects."

On the problem of Muscle Shoals, he expresses the opinion that it is primarily as an agricultural problem that it should be considered. Concerning its further development and operation he believes this should be left to private enterprise. "I should favor," says the President, "a sale of this property, or long-time lease, under rigid guarantees of commercial nitrogen production at reasonable prices for agricultural use."

THE PRESIDENT AT CHICAGO

The visit of President Coolidge to the International Live Stock Exposition at Chicago gave him an opportunity to develop somewhat more fully the agricultural subjects covered in his recent message to Congress. In his speech he pledged that the government would do everything possible to encourage and direct the effort of farmers to reach prosperity, stability, and security. He urged orderly and centralized marketing, co-operation in producing, financing, buying, and marketing; broadening of foreign markets; freight rates as low as possible; development of navigation in the Mississippi Valley and the St. Lawrence River; and economy in local and national government.

In discussing the problems of overproduction, and possibly with the McNary—Haugen bill in mind, the President said: "We know by experience that government subsidies or price fixing would increase production and aggravate the evil. We might give away the surpluses, or buy and store them indefinitely; still the cost must come from the tax payer, and the farmer is a tax payer. But in the end these efforts always fail. The sound remedy is to reduce production, and that is a remedy that will automatically apply itself if there is not artificial interference."

Besides the above mentioned control by natural laws, the President suggested other measures of relief. Better marketing will assist, the protective tariff is of aid in creating home markets and in protecting the producer against foreign competition, and governmental financial aids can be invoked. "More than anything else," he said, "the farmer needs to know the truth about himself and his business. He needs to know all the facilities that have been created, wherewith he can help himself. He needs to study them and to learn to utilize them, both as an individual producer and through co-operative organizations. Neither the government, nor institutions of agricultural education, nor the benevolent purposes of society as a whole, can in the end do for the farmers the things that only the farmers can do for themselves."

It is quite evident the President believes very largely in self help and that all the government can do is, as Roosevelt put it, "to see that the rules of the game are right and that it is played fairly". The President has faith in the future, for he says: "Unless there are maladjustments absolutely without excuse in the economic relations of industry, agriculture, and commerce, the furnishing of food to a population which is so rapidly expanding should be the soundest and most reliable of all business. The American farmer can look forward hopefully and even confidently to a time when his will again be regarded as the most independent and secure section of our population."

Charge for Silo Filling

I would like to have some information as to what to charge for filling silos for my neighbor. I sold a half interest in my cutter to him and furnish the power with my 10-18 Case tractor one year old. I ran the cutter and the tractor myself. I have kept track of the time spent and the oil and

gas used. We did not have enough teams to keep the cutter going all the time.

We filled a 16x36 full and a 12x32 half full in 35 hours, using 35 gallons of gas, 6 quarts of oil, and sharpening the knives once at a cost of $1.

Waukesha, Wis. J. E. S.

We recently paid a neighbor $2.50 per hour for the use of his 10-20 tractor silo filler and one man to operate the machine. In addition we supplied the gas. The total cost for filling and refilling a 16x36 foot silo was $52.50, plus $5.17 for 45 gallons of kerosene. Two years ago when we supplied the cutter, the charge was reduced to $2.25 per hour. As in this case, the teams were not able to keep the machine busy at all times owing to long hauls. No deduction for lost time was made except for such time as was lost owing to a breakdown in the machinery.

For shredding corn the customary charge in this community is $3.00 to $3.50 per hour for a 6 roll shredder, engine, and one man. For an 8 roll shredder, the charge is $4 per hour. The owner of the farm furnishes fuel.

We would appreciate reports from other communities as to charges for silo filling and shredding.

Gain on Sweet Clover Pasture

Hans P. Peterson doubled his production of fat per cow during July this year when his cows were on sweet clover pasture as compared with their production during July last year on common pasture. Last year eight of his cows got grain and this year only six received grain. In commenting on this in his annual report for the Southern Dodge County, Minnesota, Cow Testing Association, Tester Bruce Gochnauer says:

"During June when the ordinary pastures got short this year because of lack of rain, Mr. Peterson did not have any worry about his sweet clover pasture getting so dry that it would stop growing. The only thing that worried him was, 'Are my cows going to keep it down so that it does not get so large that they won't eat it?' Mr. Peterson says that a dairy cow cannot milk if she has to spend all the time she is not in the barn being milked trying to find enough to eat. 'But', he says, 'they should be able to eat their fill in an hour and then lie down. The grass has to be long enough so that they can get a whole mouthful at each bite and when they have a sweet clover pasture they have that kind of grass. You don't have to worry about your cows falling off every time there is a little dry spell because the sweet clover is not affected by dry weather. The roots go down deep in the ground and find plenty of moisture. And all the evidence I want is to compare the records of my cows this year with those of last year to show me which is the best pasture and which kind of pasture will produce butterfat for me the cheapest.'"

Barley Versus Corn For Hogs

In your weekly dairy paper I note that you deal occasionally with hog feeding and management. I have a stiff hog problem this fall, having lost my corn crop by hail in September. I have at present 75 late May pigs weighing 150 lbs. With 600 bushels of barley, 400 bushels of oats, and about 150 lbs. of skimmilk daily with No. 1 old corn at $1.25 a bushel, what feeds would you advise me to purchase for fat and protein to balance the ration? What mineral mixture do you advise? When would you market them?

Plainview, Minn. L. M. S.

The many feeding experiments comparing barley with corn for feeding hogs indicate that pound for pound barley is worth 90 per cent as much as corn. Under certain conditions it is worth a little more and under certain conditions a little less. We think that if you will have the barley ground medium fine and feed it in a self-feeder to the hogs, allowing them what skimmilk you have and in addition to this give them access to tankage in a separate feeder from the barley feeder, you will be able to make almost as rapid and economical gains as if you were feeding corn.

It would be well for you also to make a mineral mixture composed of equal parts by weight of salt, fine ground limestone, and steamed bone meal allowing the hogs free access to this in a self-feeder. This mineral mixture has been found by several of the experiment stations to be not only efficient as a mineral mixture, but also very economical.

In order to get the greatest degree of efficiency out of the barley, experiments indicate that it must be ground and not fed whole or soaked. By allowing skimmilk the hogs will not consume nearly the quantity of tankage that they would consume if there were no skimmilk in the ration.

Cost of Butterfat Production

What does it cost to produce a pound of butterfat? No fixed price can be given because the cost varies with seasons, sections, herds, and individual cows. An average of the costs from a large number of cases over a varied area, however, may serve as a measuring stick for any dairyman. The following figures showing the pounds of feed, the number of days pasture, and the number of hours man labor per pound of butterfat produced were secured by averaging the results of cost of production studies in eight states reported in twelve bulletins covering the period from 1912 to 1922. Three of the states conducted more than one study.

Cost of Producing One Pound Butterfat

Hay, pounds	17.9
Succulent feeds, pounds	22.5
Grain and concentrates, pounds	7.4
Days pasture	.7
Hours man labor	.7
No. cows included	21595
Average production butterfat, pounds	242

The 21,595 cows whose yearly records are included in the above feed costs were owned and cared for by dairymen on farms scattered from New York to Washington. Regular visits were made to these farms by representatives of the state experiment stations to determine the amount of feed used. Feed costs constituted about 50 per cent of the total cost of producing a pound of butterfat. Feed and labor costs made up 70—75 per cent of the total cost.

For cows producing about 242 lbs. of fat per year these feed costs will hold good. Cows producing above 242 lbs. of fat will require less feed per pound fat while cows with production records below 242 lbs. will require larger amounts of feeds for each pound of butterfat produced. A chart in the U. S. D. A. 1922 Year Book shows the relation of butterfat production per cow to feed cost per pound of butterfat as determined from the records of 18,014 cows in cow testing associations. Using 250 lbs. fat per cow per year as a base from which to compare feed costs when more or less fat is produced, the following are the approximate costs according to this chart:

Production per cow per year	Feed cost
150 lbs. butterfat	122%
200 lbs. butterfat	110%
250 lbs. butterfat	100%
300 lbs. butterfat	90%
350 lbs. butterfat	86%

The 250-lb. production is very near the 242-lb. average used in getting the pounds of feed per pound of butterfat produced.

With the above tables any dairyman who knows what the average annual butterfat production of his herd is, can arrive at his approximate cost of producing a pound of butterfat. The feed cost can be determined by multiplying the pounds of feed as given in the table by the local price of each feed and adding or subtracting a certain percentage from the total amount according to whether his annual butterfat production per cow is above or below the 250-lb. mark. This feed cost should be doubled to get the total cost. This cost figure balanced against the price received for butterfat plus the value of calves and manure will show whether a profit is being made or a loss sustained.

As an example, if hay is worth $15 per ton, succulent feeds $4 per ton, grain and concentrates $40 per ton, and pasture $3 per month, the feed cost of a pound of butterfat from a herd producing an average of 250 lbs. fat per year would be 39.7 cents and the total cost would be 79.4 cents. For a herd producing an average of 150 lbs. per year the cost per pound would be 96.8 cents; for a herd producing an average of 350 lbs. fat per cow per year the cost would be 68.2 cents per pound fat.

If cost of production of butterfat is as high as determined in these studies, dairying has been an unprofitable enterprise in many sections of the country. If these studies are not correct why do experiment stations continue using the same methods in gathering cost of production data? These records show that many herds are kept at a loss yet farmers still keep them and live. Do the other farm enterprises support the dairy herd, or how is this situation explained?

Utah. W. W. OWENS.

We have never seen a time when a cost of production study would show a profit for any but the exceptional cow and the exceptional dairyman. This does not necessarily mean that the cost of production studies were inaccurate, but that they cannot be applied as a yardstick is applied in measuring cloth.

In the first place, we question whether the dairy business submits itself to the kind of cost accounting studies that have been conducted. On a very great majority of farms it is a practical impossibility to separate the dairy business from the other farm enterprises. It is somewhat similar to attempting to determine whether plowing for corn is more profitable than cultivating corn. Both are considered fairly indispensable in the profitable growth of the corn crop.

Another difficulty with the cost accounting studies is that there are many estimates to be made and these estimates are based on rather arbitrary conditions. The cow is charged up with the depreciation of the barn on the basis that the barn will become non-existent in twenty years, whereas this is not a likely occurrence. Then, too, the cow will be charged with bedding at the prevailing rate, whereas straw on the farm in most cases will have no market value. The same could be applied to the corn stover, either when fed as such or when it forms a portion of the silage. Then, too, the cow will be charged with hay at the prevailing rate, when as a matter of fact she is the animal that has created the given value for hay. For instance, in the dairy districts of Wisconsin hay is quoted at anywhere from $20 up, while in other sections where cows and cattle are not in considerable numbers, hay is worth a comparatively low figure.

For the sake of convenience, most cost accounting studies have been based on market values, and there is an eternal argument as to whether this charge is proper or whether the charge should be upon the basis of the cost of production of the crop that is to be fed. It would seem reasonable that if the cow is to be charged market prices for her feed, she should be credited with market prices for the fertility in her manure. If this were done, we would have the rather absurd credit of anywhere from $50 to $75 per cow for manure.

We believe that there is value in cost of production studies, but they are too frequently improperly used. Their value comes from the lessons they give as to the necessity for economical production and for good producing cows. Each farmer needs to apply the data to his own particular herd and to his own particular conditions. In some cases the housing charge is more than is warranted and in others the labor charge can be largely disregarded. Farming is to a no inconsiderable extent an adjustment of labor so that it may be kept effectively employed throughout the year. At some times it will pay to neglect the dairy and at others it may pay to neglect some other part of farm work. This neglect may produce a loss, but in so far as the total operation of the farm may be concerned, it may result finally in profit because it will release the men to do the more important tasks. One of the problems is to keep farm labor employed for a sufficient amount of time so that the farm tasks may generally be well done. If hired labor or home labor is only half employed, it represents an expense to the farm and this time could better be used in what might, according to cost of production studies, be unprofitable; when as a matter of fact it may be an enterprise or a piece of work that will make the entire farm enterprise profitable when otherwise it would not be.

There are many other different things entering into the proposition that do not make it easy to analyze or set down. We have fussed with the matter for years and are less satisfied that we know the truth than we were when we first started to study it. We are only satisfied that dairy farming for fifty years has shown itself to be a sane, safe, and conservative type of farming. Large numbers of men have made good profits and have accumulated a competence. The better men have made the better profits and have shown the largest advance. We sometimes think that the human equation is the biggest item, not only in dairy farming but in all lines of business. Two grocers side by side—one makes money and the other quits business poorer than he began. Both have had the same opportunity, yet one succeeds. Cost accounting studies might help in determining why one succeeded and the other failed, but they would scarcely give accurate measure of the possibilities of the grocer's business. So it is with dairy farming.

We still believe, as we said many years ago, that with a herd averaging 300 lbs. of fat in a year the cost other than feed will be covered by the value of the calf, the skimmilk, and the manure. This applies to dairy farming as it is conducted on ninety per cent or better of the farms in the United States. It is only a rule of the thumb and must be applied with the same discretion that we believe other standard cost of production studies should be applied.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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EDITORS
A. J. GLOVER, P. C. BURCHARD

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Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Jan. 8, 1925—The Massachusetts Dairymen's Association holds its annual meeting in connection with the Union Agricultural meeting in the Massachusetts Armory, Worcester, Mass.

Sale Announcements

Dec. 20—Holsteins. Wauseon County Home Dispersal, Wauseon, Ohio.

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 8-*

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

WASHINGTON, D. C., DEC. 9—As the result of the meetings of dairy interests and others closely allied to this industry held last week in Chicago, the various activities will be increased in Washington by the establishment here of the central office of the International Institute of Co-operation which was started something over a year ago by the officers and members of the National Federation of Co-operative Milk Producers. The leaders in the milk producers' co-operative organizations have associated with themselves the representatives of numerous other groups, both those interested in and those actually engaged in co-operative enterprises, and at Chicago decided to incorporate under the laws of the District of Columbia and establish a central office here. For the immediate future the work of this institute will be to hold at some convenient location each summer—probably at some centrally located college or university—a two or three weeks' session of co-operative leaders for the discussion of methods and problems, and the formulation of a body of text material which may be used in establishing college courses in co-operative marketing and the management of co-operative enterprises. Charles W. Holman of the National Co-operative Milk Producers' Federation will be in charge of the general activities of the institute.

John Brandt, president of the Minnesota Co-operative Creameries' Association, and the sales manager of that organization, Mr. Meyers, have been spending some days here in connection with a project of marketing a part of the output of Land-'O-Lakes butter through a large chain of grocery stores in this city. Washington has been notably deficient in high grade butter and the Minnesota group hopes to take advantage of this situation and create a market here for this product. It is understood that an experiment is to be tried here through a try-out of a system of having every pound of their butter which is sold here go out under a guarantee of quality, each pound to be identified as to the creamery in which it was made and the date of its manufacture and the name or initial of the inspector included in a certificate which will be enclosed with each pound print. The butter will be sold by a chain of stores which has been handling a fairly average grade of butter at cut prices and will naturally be priced somewhat above the regular grade, which will be continued in the same stores so the regular grade and the Minnesota sweet cream butter will be sold side by side, the only appeal for the better butter being a guarantee of its high quality. The U. S. Department of Agriculture, although not a party to the experiment, is to give it some attention and may later on make a study of it and a report on the results of the experiment.

Helmer Rabild, well known to the dairy industry of the whole country because of his work with the U. S. Department of Agriculture, has recently returned to this country, reporting a most profitable and enjoyable trip to Denmark.

A new use for Holstein cows is reported by Dr. Leon A. Estabrook, former chief of the Crop Reporting Section of the U. S. Department of Agriculture, who has been in South America something less than two years organizing an agricultural crop reporting system for the Republic of Argentina. His new experience occurred in Santos province, Brazil, where two-thirds of the Brazilian coffee crop which is two-thirds of the world's coffee crop, is produced. In this country, he says, there is a remarkable development of advanced methods and scientific handling of the land to induce maximum production of coffee trees and their fruit. On one of the great plantations he found a large dairy barn, two hundred feet long or longer, concrete floored, completely sanitary in every respect, and housing more than 200 head of large, fine Holstein cows, with a number of young stock, calves, bulls, etc. In fact it looked like a perfect and very large dairy establishment, but when he asked to have a sample of the milk, and tried to get a drink of milk, he found that they did not milk the cows at all.

"What do you keep them for?" he asked the "administratadore".

"Solely for the manure, which we have found is essential to the high production of the coffee trees," was the surprising answer.

Upon investigation he found that an elaborate system had been provided of manure carriers, manure pits, and spreaders, all American machinery, for the handling of the manure from this barn to the coffee plantations. He did not tell whether or not he found out why Holsteins were used but the inference would be that they were the cows with the largest appetites and capable of producing the greatest amount of the fertilizer.

The agricultural appropriation bill, reported in the House of Representatives this week, is very satisfactory to most interests, especially as compared with some advance reports which were current, although without official confirmation. For the Dairy Bureau the very small cut which the budget bureau recommended, was stricken out by the committee and a small amount in excess of the present year's fund was added by the committee. The same happened, on a larger scale, to the appropriations for tuberculosis eradication work. The Budget Bureau report was overruled and $150,000 was added for indemnities and thirty or forty thousand dollars more added for administration. In the proceedings of the committee which is now published, a discussion of the anti-tuberculosis work and the battle against the foot and mouth epidemic, as told by Dr. Mohler, chief of the Bureau of Animal Industry, is printed in detail. Great success attended the work of the Department in these two special fields and the committee showed its appreciation by a very liberal attitude toward continuing support.

Coolidge Tribute to Live Stock

In his address at the International Live Stock Exposition in Chicago, President Coolidge paid the following tribute to the live stock farmer:

"We are entitled, I think, to look upon live stock as one of the most highly developed products of the agricultural industry. To bring that industry to its present high estate has required a continuing co-operation of unflagging industry, determined courage, sound business, a widespread and intelligent application of scientific methods, and the recognition of the practical advantages to be derived from our American system of agricultural education.

"If anybody questions that the farming community of this country has become a community of men and women capable of dealing with affairs in the broadest and most inclusive sense, I should like to have the doubter share with me the privilege of discussing the problems of agriculture with some of the men and women who come straight from the farm to the White House for that purpose. I should like to have the doubter know, as well as I know, that even in his times of misfortune the farmer demonstrates a most reassuring capacity to keep his common sense intact and to do his economic thinking on sound lines.

"From the beginnings, the prosperity and efficiency of farming have been very accurately measured by the development of its live stock feature. I do not know just when the discovery was made that the profitable mode of marketing products of the farm was to drive them away on four feet. But I do know that this was so long ago recognized in the old New England country of which I am a native that it gave rise to a quaint colloquialism which was employed in stating the size and capacity of a farm. When I was a boy in Vermont, a farm was described, not as containing 60 acres or 80 acres or 100 acres, but as a 10-cow farm or a 20-cow farm or a 30-cow farm. And I am not sure but this old fashioned mode of measurement was more accurately descriptive than any unit derived from the activities of the surveyor.

National Dairy Council

The fifth annual meeting of the National Dairy Council was held in Chicago December 4th. The officers were re-elected, including M. D. Munn as president and M. O. Maughan as secretary. The president presented a budget of $145,000 to be used in promoting the educational work of the Council.

The secretary outlined the work of the Council at the present time, showing that dairy councils are organized in eleven different districts of the country and that the 1924 budgets of all the dairy councils combined were approximately $595,000. There are now 129 men and women actively associated with the Dairy Council in teaching the rules of health.

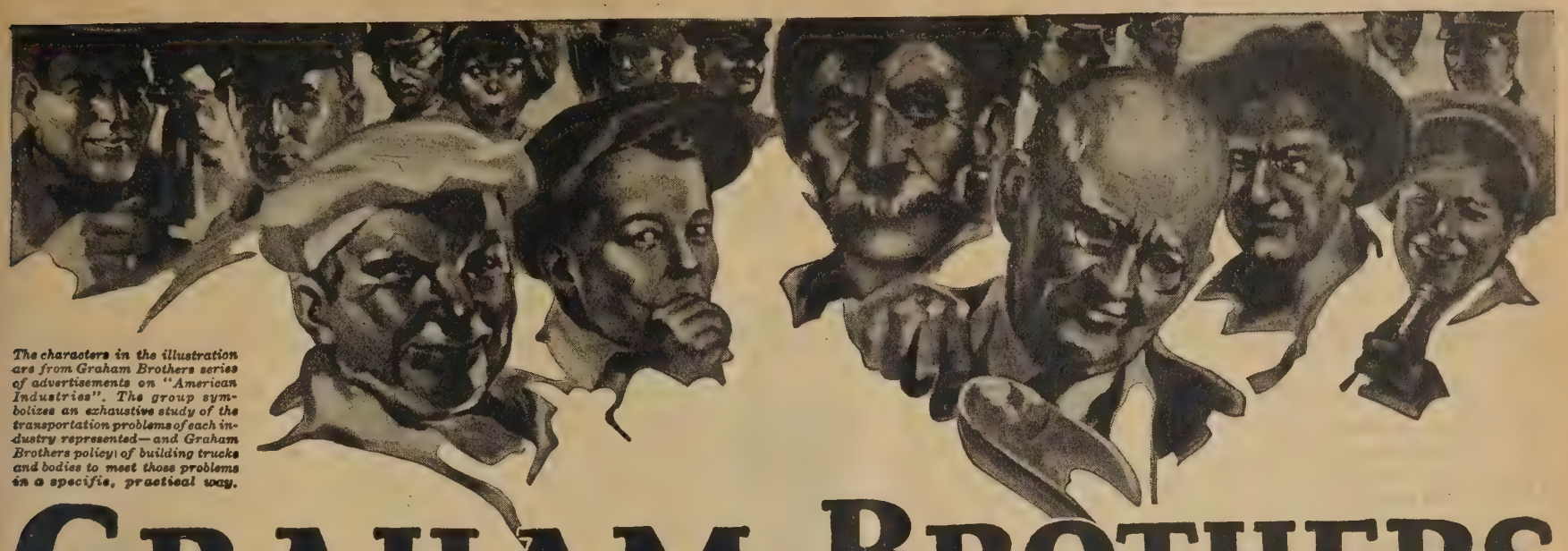
At St. Paul the dairy council has a large group of white rats, dogs, and chickens and experimental feeding tests are being conducted on these animals, under the able direction of Dr. L. S. Palmer of the University of Minnesota. Dr. Palmer was present and gave a most interesting report of his findings. His experimental work is bringing out in a very striking way the superior value of milk in promoting growth and health, and also the superior value of butter over oleomargarine. Most of these animals are available for use by the industry for exhibition purposes.

Hard Master

Hold yourself responsible for a higher standard than anybody else expects of you. Never excuse yourself. Never pity yourself. Be a hard master to yourself—and be lenient to everybody else.—BEECHER.

When the turkey's on the table,
And the mince pie's on the way,
An' my plate is filled with fixin's
That belong to Christmas Day,
I fergit I'm over eighty,
An' about my rheumatiz,
An' it seems to me that livin',
Is the best thing that they is.

ARTHUR BIGELOW PAINE.



The characters in the illustration are from Graham Brothers series of advertisements on "American Industries". The group symbolizes an exhaustive study of the transportation problems of each industry represented—and Graham Brothers policy of building trucks and bodies to meet those problems in a specific, practical way.

GRAHAM BROTHERS TRUCKS

In the Language of the Buyer!

Graham Brothers believe that intimate familiarity with a problem is essential to a *practical* solution.

In accordance with this idea, they began several years ago to make an exhaustive analysis of America's leading industries.

These investigations revealed vital information that has been applied both to the building and selling of Graham Brothers Trucks. Instead of manufacturing to meet general requirements, they build trucks and bodies to meet *specific needs.*

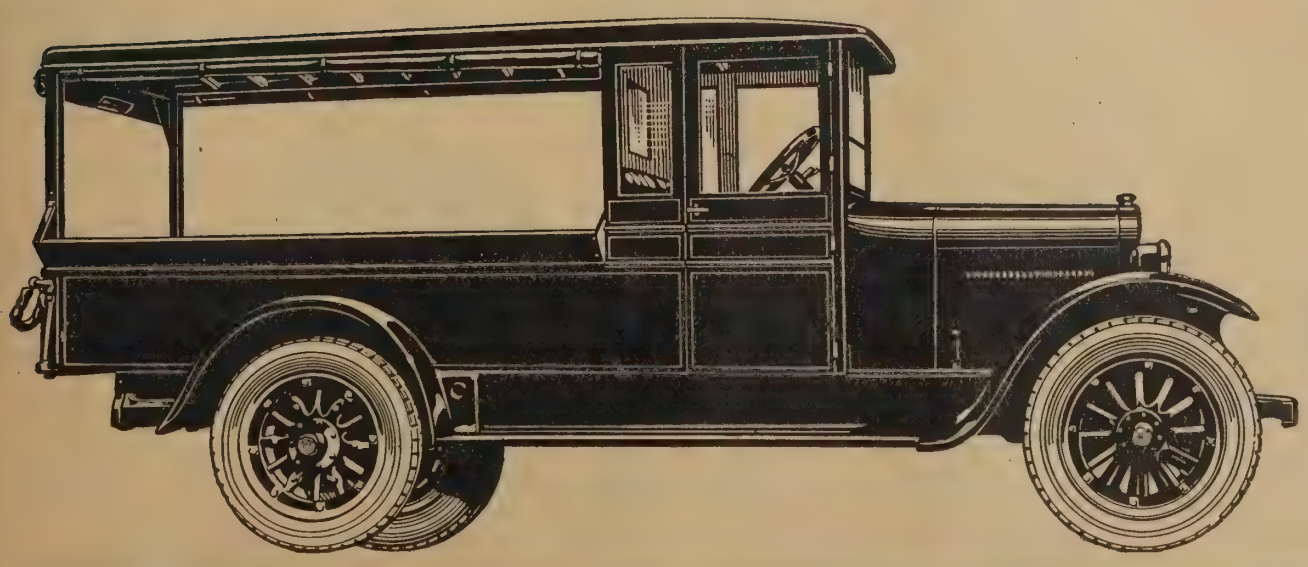
That this specialized method of manufacturing and selling appeals to business men is evident from the fact that a tremendous increase occurred in every industry analyzed, in the exact order in which the analyses were made. In many of the 18 industries upon which the investigations were concentrated during 1923-4, the increases exceeded 1000 per cent and the 18 industries as a whole absorbed 90 per cent of all the Graham Brothers Trucks produced!

In view of these results, it was only natural that the investigation should be extended to include every important business. With this analysis now completed, with a new 1-ton truck, an improved 1½ ton truck and 36 standard body types, it is apparent that Graham Brothers are in a position to discuss any haulage problem—

In the Language of the Buyer!

1 Ton Chassis, $1175; 1½ Ton Chassis, $1375; f. o. b. Detroit

GRAHAM BROTHERS
Detroit & Evansville
A DIVISION OF DODGE BROTHERS



The new Graham Brothers One-Ton Truck (open canopy type shown at right) and the improved Graham Brothers 1½ Ton Truck are now being displayed by Dodge Brothers Dealers. Graham Brothers build a standard body for every business, in their own factories at Evansville, Ind.

SOLD BY DODGE BROTHERS DEALERS EVERYWHERE

Christmas In the Home

Lucy Thompson

In the Glow of Christmas Candles

THERE is something so beautiful about this blessed season that the thought of writing a message to our people brings a swelling of the heart and a great desire for the word that will fit all the circumstances in which, this year, we find ourselves.

Some, since our last Christmas, will have had deep sorrow; some will have had great joy; some will have had a vexing year of small annoyances and disappointments; for others the past year will have been as level as a plain—no hills of joy or deeps of sorrow.

The more I experience of life the more sure I am that, no matter which of these situations may be ours, kindness and love and the simple homely virtues are the only things that really count and that the person who early sets out to fill his life with them will, at the end, have had these blessings returned to him abundantly and in addition a measure of happiness that could not have been bought with any other coin.

If I could get for us all this Christmas just one gift it would be the ability to see things in their true values. The very first Christmas gift the world ever knew was God's gift of Christ. "God so loved the world" that He gave it the greatest gift within His power and that was Love, embodied in His Son. Surely it is the only example we need and the nearer to the divine love we come, the happier we will be.

If we had this gift of real sight we could know that love is the greatest thing in the world. Don't be afraid of loving too much. This, in the high, spiritual sense, is impossible. We all want to have love; let us learn, then, that the only way to have it is to give it and that he who has most is he who gives most.

There is so much in the world to love, especially if we love with the kindly sympathy of understanding. That person who irritates you so—maybe it is only a neighbor or it may be someone in your own family—forget your side of it and see it from the other; maybe you are to blame after all. The old whose deafness sometimes makes you impatient; the man worried by money matters; the child whose affliction tries you so sorely—put yourself in their places and see how quickly your impatience will turn to sympathy and love and understanding.

Christmas is the season of joy. Let us neglect nothing that will make for happiness but let us remember, too, that the Christ child came because God so loved the world and that everything connected with the celebration of His birth must show love first before it can show true happiness.

Christmas Through Other Eyes

"At home, at sea, in many lands
This kingly feast without a rival stands."

NO matter how great a scoffer a man may be at religion, Christmas remains for him the same joyful time that it is for those who truly celebrate it as Christ's birthday. We all fly around our own homes for weeks, preparing for the great event and if we ever think at all of far away people, we feel that they are celebrating in much the same way we are and when it comes to liveliness and jollity they probably are for the most part, but not with the same details.

Some charming stories have been written of Christmas celebrations in other places and lest we forget the poor people, so different from ourselves, crowded into the narrow places of the cold, big cities, let me quote you from "Children of the Tenements":

"The lights of the Bowery glow like a myriad of twinkling stars upon the ceaseless flood of humanity that surges ever through the great highway of the shine upon lodging houses dreds of young helpless upon strange city, their first les lone li ness. u pon the ting his snares on the mis the Salvation disputing his him; upon the past hope and pausing on the pit . . . . Just as the dark of Christmas Eve was setting in, old Mrs. Benoit came from her Hudson Street attic to the office of the charity organization society, with a bundle for a friend who had helped her over a rough spot. The bundle was done up elaborately in blue cheese cloth and contained a lot of little garments which she had made out of the remnants of blankets and cloth of her own from a younger and better day. 'For those,' she said, 'who are poorer than myself'. I found out a few days later when I saw her weaving mats in her attic room that she had scarcely food in the house that Christmas Day and not the car fare to take her to church. 'It is no disgrace to be poor,' she said to me, 'but it is sometimes a great inconvenience'. . . .



LUCY THOMPSON

"Outside the snow is falling. It sifts silently into each nook and corner, softens all the hard and ugly lines, and throws the spotless mantle of charity over the blemishes, the shortcomings. Christmas morning will dawn pure and white."

The thought of Christmas will bring a moisture to the eye and a lump in the throats of many of our readers who will be reminded of old holiday times in the homes across the sea. I wonder how many of our Danish readers will recall this story of Jule-Nissen:

"I do not know how the forty years I have been away have dealt with Jule-Nissen, the Christmas elf of my childhood in far-off Denmark. He was pretty old then, gray and bent, and there were signs that his time was nearly over. . . . When I was a boy we never sat down to our Christmas Eve dinner until a bowl of milk and rice had been taken up to the attic where he lived with the martin and its young and kept an eye on the house. I never met him myself but I think that the house cat must have done so; for when in the morning I went in for the bowl there it was, quite dry and licked clean, and the cat purring in the corner. So, being there all night, she must have seen and likely talked with him.

"The cattle were his special concern; he saw to it when the men forgot that they were properly bedded and cleaned and fed. He was very well known to the hands around the farm who said that he looked just like a little old man, all in gray and with a pointed red night cap and a long gray beard. Christmas was his great holiday when he was made much of. So, for that matter, was everything that lived under the husbandman's roof or within reach of it. Even the sparrows that burrowed in the straw thatch and did it no good were not forgotten. A sheaf of rye was set out for them on the Holy Eve so that on that night at least they should have shelter and food unchallenged. . . . Only last winter when Christmas found me stranded in a little Michigan town, wandering disconsolate about the streets, I came across such a sheaf of rye raised on a pole in a dooryard and I knew at once that one of my people lived in that house and kept Yule in the old way."

One of the prettiest of the Christmas customs is the Norwegian practice of giving a Christmas dinner to the birds. On Christmas morning every gable, gateway, or barn door is decorated with a sheaf of grain from which it is intended that the birds shall make their dinner. Even the poorest manage to have a handful set by for this purpose and what the birds do not finish on Christmas Day is left for them to finish at their leisure.

In the Norwegian towns there is a custom of offering a lady a present hidden in a truss of hay, a sheaf of corn, or a bag of chaff. "A friend of mine," says a traveler, "once received from her betrothed, according to the Christmas custom, an exceedingly large brown paper parcel which on being opened revealed a second parcel with a loving motto on the cover. And so on parcel within parcel, motto under motto, until a lovely piece of jewelry was arrived at."

Germany is the home of much that we love best and practice most in America at Christmas time. A German lady recalls her childhood celebrations of Christmas thus:

"The Christmas tree bore gilded fruits of every species and as we gazed with delight on these sparkling treasures our young voices were ringing out the sweet tune:

"Now let us thank our God;
Uplift our hands and hearts;
Eternal be His praise;
Who all good things imparts."

"A large table stood in the midst, surrounded by smaller ones literally laden with pretty toys. We liked the toys very much but were too happy long to endure the quiet pleasures so, after a dance around the tree we examined our presents, and the variety of them would much exceed the belief of a stranger to our customs. It was then that I received my first Bible and prayer-book and when the precious gift was put in my hand I resolved to accompany my parents to church the following morning at five o'clock.

"The great bell had called us together at five in the afternoon to receive our gifts and though at eleven our eyes and hearts were wide open, we were obliged to retire and leave all those objects of delight behind us. Next morning early I was fully roused and implored so earnestly to be taken to the church that my prayer was granted.

"Arrived at the church, we found it brilliantly illuminated and decorated with holly and evergreens. It is quite certain that a child of five could not understand the beauty of the sublime service she so often witnessed in after life; yet I can recall a peculiarly sweet and sacred feeling taking possession of me as my infant mind received the one impression that it was the birth of the Savior.

"Since early impressions are likely to be permanent, it is considered most important in my country to surround Christmas with all joyous and holy associations. A day of days it is with us—never to be forgotten."

Charles Kingsley's Prayer

CHRISTMAS peace is God's and He must give it with His own hand, or we shall never get it. Go, then, to God, Himself. Thou are His child, as Christmas Day declares; be not afraid to go unto thy Father. Pray to Him; tell Him what thou wantest; say "Father, I am not moderate, reasonable, forbearing. I fear that I cannot keep Christmas aright for I have not a peaceful Christmas spirit within me; and I know that I shall never get it by thinking and reading and understanding; for it passes all that and lies far away beyond it in the very essence of Thy undivided, eternal Godhead which no change nor decay of this world, nor sin or folly of men or devils, can ever alter; but which abideth forever what it is, in perfect rest and perfect power, and perfect love. O, Father, give me Thy Christmas peace."

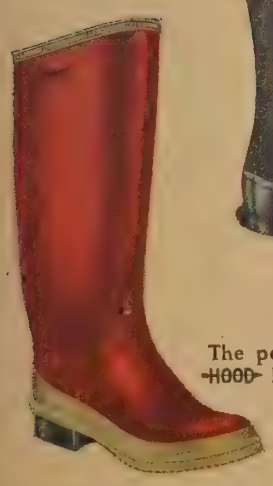


THE
~~HOOD~~
KATTLE KING
fleece lined

Warm and Dry- quickly cleaned



The Four
Buckle Arctic



The popular
~~HOOD~~ Red Boot



White Rock
Rubbers
—for all the family

Here's a wet weather shoe—the Kattle King. Husky tire-tread soles, built for wear under all conditions. Red all-rubber uppers, which established a new standard for life without checking or cracking—and without clumsy weight.

Being all-rubber, the Kattle King is quickly, easily, thoroughly cleaned—of all grime and soil—free from all odors.

Leave them in the shed at night—there's no cloth to soak moisture and freeze. You work in comfort, your feet are always dry, you get longer service.

The Kattle King is typical of Hood service to you in boots. The Hood Red Boot offers the same long wear and freedom from checks and cracks.

In White Rock Rubbers, the same "in built" service cuts down the rubber bills for all the family.

Hood values are sound, of practical every-day benefit. Use the name Hood as your buying guide. It is a time tested guarantee of design, material and workmanship.

HOOD RUBBER PRODUCTS COMPANY, Inc.
Watertown, Massachusetts

HOOD RUBBER PRODUCTS

BETTER RUBBER PRODUCTS SINCE 1896

RUBBER BOOTS AND SHOES—ARCTICS—CANVAS SHOES—ATHLETIC SHOES—HEELS AND SOLES—RUBBER SPECIALTIES—TIRES AND TUBES



A Delightful Delay

It's worth being late for—a cake like this. What a gift for the appetite! What real zest it adds to the Yule-tide meal! Back in 1889 many housewives used

CALUMET

THE WORLD'S GREATEST BAKING POWDER

when they baked their Christmas cake. Today their daughters are using the same dependable leavener—so are millions of other women. And the reasons are apparent—economy—unfailing results—the two big causes for Calumet being called the preferred leavener of the nation.

Use it when you bake the Christmas cake and continue using it throughout the coming year because for light, perfectly baked and always nutritious foods it has no rival. Every ingredient used is officially approved by the U. S. food authorities.



SALES 2½ TIMES THOSE OF ANY OTHER BRAND

Miscellaneous Fashions



No. 2254—Becoming Lines. Cut in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 takes 4¼ yards 40-inch material. Hot-iron transfer pattern No. 718 (blue and yellow) costs 15c extra.

No. 2215—Attractive Style. Cut in sizes 34, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3⅛ yards 40-inch material.

No. 1939—Comfortable Nightgown. Cut in sizes 16 years, 36, 40, and 44 inches bust measure. Size 36 takes 3⅞ yards 40-inch material.

No. 1835—One-Piece Apron. Cut in sizes 36, 40, and 44 inches bust measure. Size 36 takes 2 yards 36-inch material.

No. 2244—Comfortable Pajamas. Cut in sizes 2, 4, 6, 8, 10, and 12 years. Size 8 takes 2½ yards 36-inch material.

No. 2013—Round Pillow. The housewife would appreciate a round pillow like this for Xmas. She could use it in her living room. You could make it of taffeta, velvet, brocade, satin or tapestry. Cut in one size only. For material requirements, see pattern envelope.

No. 1780—Bolster Pillow. This is another gift that the housewife would appreciate if she found it among her Xmas gifts. Cut in one size only. For material requirements, see pattern envelope.

Fashion Magazine

An attractive wardrobe is not entirely a matter of money. It is more a matter of proper selection of styles and correct fit. With the help of our dressmaking Fashion Magazine, the woman forced to be economical in clothing expenditures can dress as well as women of means This book offers a good selection of styles which can be made inexpensively. So in ordering your pattern, we suggest that you enclose an extra 10 cents for a copy of The Fashion Magazine. Address your order to Fashion Department.

Friends

Nae man can be happy without a friend, nor sure of him till he's unhappy.—Scotch Proverb.

When the Tide Turns

No matter how hard we try to have every minute of Christmas Day merry there always comes a time in the afternoon when everyone, overwarm perhaps and certainly over-fed, gets a little fretful.

"Snip-snap" go the children who shouted so happily in the morning and "snip-snap", maybe, go the parents, too, because they are tired out.

Maybe all that's needed is to "blow out the house" as one of my neighbors says. She means open it up and let the fresh air blow through. Don't be afraid you'll freeze for fresh air heats more quickly than stale.

Play a game or two, read the Bible stories of Christmas (Matthew 2 and Luke 2), sing any songs you all know, pop some corn (goodness knows you won't need it but it's fun to do), or take a good brisk walk—do anything that you can all do and do it with good fresh air, either inside the house or out and you'll see good humor coming back with a rush.

The simpler the games, the nicer; ring-on-a-string or buried gold, as some call it, will amuse a crowd a long time and so will "hunt the slipper". Peanuts hidden in all sorts of places will furnish fun for the finders; for out of doors building a snow man or a fort is the most fun provided we have that sort of weather.

Christmas afternoon is a good time to walk to the neighbors or to look in on some old person who is sick. We must never think that Christmas is a day of bustle for everyone just because it is for us. There is a feeling akin to terror to those who are lonely on Christmas Day and there is no medicine for it as good as a lively talk and the sight of a happy face.

Old Christmas Superstitions

Any celebration of long standing is sure to be bound up in superstitions, and Christmas, being one of our oldest festivals, has for decades been surrounded with customs which to our sensible modern eyes look very queer.

Thoughts of the future mate, for instance, have long been associated with this season. An old English custom is here described in poetry with the peculiar spelling of the day:

"In these same dayes, yong gyrles that meete
for marriage bee
Do search to know the names of them that
shall their husbands bee.
Four onyons, five, or eight, they take, and
make in every one
Such names as they do fansie most or best do
think upon;
Thus neere the chimney them they set, and
that same onyon then
That first doth sproute, doth surely bear the
name of their good man."

These same "gyrles" had another way of telling their fortunes. On a dark night near the time of Christmas, out they would go to the woodpile where each would pull out a stick of wood,

"Which, if it streight and even be, and have
no knots at all,
A gentle husband then they thinke shall surelie
to them fall;
But if it fowle and crooked bee, and knotties
here and there,
A crabbed, churlish husband then they earnestly do feare."

An ancient way of getting a good crop of apples or other fruit used to be practiced in various parts of England and France. In England the farmer would invite in several of his friends and after dark had fallen they would arm themselves with guns, blunderbusses, or any other firearms they had and proceed to the orchard. There they would select the most fruitful tree and standing around it one of them would recite:

"Here's to thee, old apple tree!
Whence thou may'st bud, and whence thou
may'st blow,
And whence thou may'st bear, apples anow:
Hats full, caps full, bushels, bushels, sacks
full,
And my pockets full, too!
Huzza, huzza!

The cider jug was then passed around, the guns fired off into the tree branches, and the party then returned to the house where a great feast was ready.

In France the same custom was carried out by only the children under twelve who went out and sang:

"Mice, caterpillars, and moles,
Get out, get out of my field; or
I will burn your blood and bones:
Trees and shrubs
Give me bushels of apples."

An English legend tells us that Joseph of Arimathea went to England, arriving a few days before Christmas. On the summit of a hill in Glastonbury he thrust his staff into the ground and on Christmas morning it was found to have taken root and covered itself with wonderful white blooms. Cuttings from that tree are much in demand for planting near churches, and only last year a thorn tree planted in Washington, D. C., and said to be from Joseph's staff, was in full bloom on Christmas morning.

In some parts of Germany the people believe that if you hang a wash cloth on a hedge on Christmas Eve and then groom the horses with it, they will be fat and sleek all year. Also that if you wear something sewed with thread that was spun on Christmas Eve, no vermin will stick to you and that if you have a shirt that was woven, spun, and sewed by a pure maiden on Christmas Day it will be proof against lead or steel. Other German superstitions are that:

If you are born at sermon time on Christmas morning you can see spirits.

If you eat a raw egg, fasting on Christmas morning you can carry heavy weights.

The crumbs saved up on three Christmas Eves are a good medicine to one who has been disappointed.

It is unlucky to carry anything out of the house on Christmas morning until something has been brought in.

In some parts of Russia the girls have a hard time telling their matrimonial fortunes as the belief is that they will not see their future mates unless they go out and dig a hole in the ice of some lake or pond and then sit by it watching until the small wavelets underneath form the features of the man they are to marry. Needless to say, the Russian girls must have strong powers of imagination.

Sad is the day for any man when he becomes absolutely satisfied with the life he is living, the thoughts he is thinking, and the deeds he is doing, when there ceases to be forever beating at the door of his soul a desire to do something larger which he feels and knows he was meant and intended to do.—PHILLIPS BROOKS.

What Babe new born is this that in a manger cries?
Near on her lowly bed His happy mother lies.
Oh, see the air is shaken with white and
heavenly wings—
This is the Lord of all the earth, this is the
King of Kings.
—GILDER—A Christmas Hymn.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.



Certified Caps For the Holidays

Nine holiday designs await your orders. You have a choice of holly wreath design, the face of jolly Saint Nick, and a variety of "Merry Christmas" salutations; your own name, too, if you desire. Printed in red and green, the caps make an attractive and appropriate article for Christmas and New Year's.

And remember, each cap is a Certified—"the Cap with the RED Flap," with these distinctive features:

(1) the tough Red flap won't pull off;
(2) the Red flap is visible; you know it's there;
(3) no fork or knife is ever needed to lift the flap or to remove the cap—the RED Flap is grasped with ease.

If your jobber cannot supply you, write direct.

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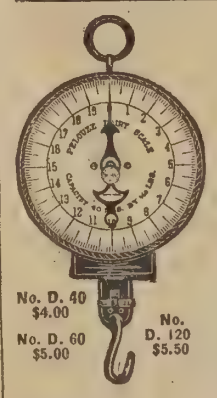
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Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound
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Made to comply with Departments of Weights and Measures. Large Circular Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail. Order direct or through any leading Supply house. Specify "Pelouze."

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Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless and meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores. Write for free sample bottle. Wells & Richardson Co., Burlington, Vt.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Dried Beet Pulp

For Succulence

Makes the whole ration more palatable and digestible—resulting in greater milk production without greater cost.



Ask your feed dealer.

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Substantial and permanent, air tight, more nearly frost-proof than any other silo on earth. No hoops to bother—no top anchors to annoy. Ask the man who has one.

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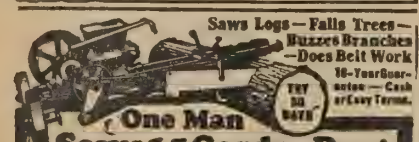


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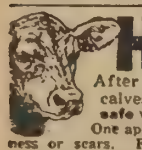


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DAIRY MARKET NEWS

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets firm and moderately active during week ending Dec. 6. Higher prices prevailing during the week appeared to be well supported. General feeling of trade was that market was on firm basis with light production and limited supply of fine cheese principal support.

The average wholesale prices on American cheese, style Twins, for the week ending Dec. 6, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending		
	Dec. 6 1924	Nov. 29 1924	Dec. 6 1923
	Cts.	Cts.	Cts.
New York	22.3	21.7	24.3
Chicago	20.2	19.1	23.7
Boston	22.1	21.6	29.8
San Francisco	20.3	20.0	24.2
Wisconsin Board	20.5	19.2	21.9

The receipts of cheese at these markets were 3,988,696 lbs. for the week as compared with 3,896,179 lbs. last week and 2,795,508 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were very unsettled during the week ending Dec. 6. Acute shortage of fancy grades the previous week was partly relieved and with some accumulation at high prices, declines were inevitable. Markets more nearly in normal relation with each other. Heavy use of storage butter continued. Conflicting reports on production, but generally indicate showing no gain. Foreign markets about steady.

The average wholesale prices on 92-score butter for the week ending Dec. 6, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending		
	Dec. 6 1924	Nov. 29 1924	Dec. 6 1923
	Cts.	Cts.	Cts.
New York	46.1	46.6	54.7
Chicago	46.1	49.7	53.2
Philadelphia	46.4	46.1	55.3
Boston	45.3	45.4	53.0
San Francisco	39.7	41.4	48.5

The receipts of butter at these markets wer 8,517,661 lbs. for the week as compared with 8,727,568 lbs. for last week and 9,414,643 lbs a year ago.

Cheese Prices for November

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese (style Twins) for the three large markets in November:

	Ave. price	
	1924	1923
	Cts.	Cts.
Wisconsin Boards	18.7	23.4
Chicago	19.0	23.1
New York		25.1

Longhorns averaged 19.3 cents in November on the Wisconsin Boards as compared with 19.4 cents in October and 25.2 cents in November a year ago. The receipts of cheese at Chicago, New York, Boston, and Philadelphia totaled 189,298,289 lbs. for the first 11 months of the year as compared with 195,745,500 lbs. for the same period last year. Storage holdings at these markets on Dec. 1 were 20,323,643 lbs. as compared with 20,077,397 lbs. a year ago.

Butter Prices for November

The following table is compiled from daily quotations by the U. S. Department of Agriculture and covers the average wholesale prices during November on 92-score butter (extras) at four of the principal markets, together with the receipts and storage holdings at these markets:

	Ave. price		Receipts	
	1924	1923	1924	1923
	Cts.	Cts.	Tubs	Tubs
Chicago	42.4	51.5	172,134	180,929
New York	42.9	52.6	192,072	201,022
Boston	41.6	51.4	37,596	62,060
Philadelphia	43.0	52.9	61,317	53,455
Total receipts since Jan. 1			8,607,411	7,932,081
Total receipts for November			463,119	497,466
Storage holdings Dec. 1			895,185	407,270

Ninety-score butter averaged 38.8 cents for November in Chicago, with centralized butter at this market selling for 40 cents. Jobbers' prices on extras sold to retailers averaged 44.9 cents in Chicago and 46.4 cents in New York.

Wisconsin October Butter

(Wisconsin Department of Markets)

The following is an average report of the operations of 134 co-operative creameries in Wisconsin for the month of October, 1924.

No. of creameries	Price paid for fat	Ave. Price rec'd for butter	Ave. overrun	Ave. fat rec'd
	Cts.	Cts.	%	Lbs.
13	44	40.1	21.7	26,662
4	45	36.7	23.5	20,669
23	43	37.6	23.6	26,554
25	42	39.1	24.2	26,960
25	41	36.9	22.7	27,287
18	40	36.7	23.4	16,879
2	39	37.0	22.8	10,895
9	38	35.6	22.0	18,935
5	37	36.3	21.7	8,323
1	35	36.2	20.6	4,490
1	34	34.0	17.1	5,190
126				17,531

Milwaukee Milk Prices

The following prices are determined on for the month of November:

For the portion sold as fluid $2.45 per cwt. shall be paid for milk testing 3.5% fat.

For the portion manufactured $1.67 per cwt. shall be paid for 3.5% fat. Four cents added or subtracted for each one-tenth of one per cent variation, up or down from 3.5 fat test.

Seventy-nine per cent of the total receipts was sold as fluid.—Milwaukee Co-operative Milk Producers.

Carload Prices of Hay, Straw, and Feed, Dec. 6, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26.50	26.00	.....	21.00	21.50	25.50	26.00	23.00	19.00	24.00	18.50	24.00	....	16.00	
No. 1 Clover, mixed	.....	.....	....	20.50	18.00	.....	.....	.....	18.00	.....	16.50	19.50		15.00	.....
No. 1 Clover	20.00	24.50	....	20.00	.....	.....	.....	.....	19.00	17.00	.....	20.50	.....	15.50	.....
No. 1 Alfalfa	....	30.00	.....	.....		35.50	31.00	29.00	28.00	23.00	23.00	...	17.00	22.50	25.00
Standard Alfalfa		25.00		.....		31.00	29.00	26.25	....	18.00	20.00	...	15.50	19.25	24.00
No. 2 Alfalfa	.....	.....	.....	.....	.....	.....	.....	22.25	25.00	14.00	16.50	.....	13.50	17.25	22.00
Oat Straw	13.00	15.00	16.00	12.50	13.50	....	.....	.....	12.50	10.00	9.00	....	7.50	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	36.75	.....	36.00	34.50	33.75	36.00	.....	.....	.....	31.00	28.50	.....			
Soft Winter	37.75	.....	37.00	35.00	35.50	.....	.....	.....	32.00	.....	29.00	30.00	.....	28.50	89.00
Hard Winter	36.75	.....	36.25	34.50	...	35.50	.....	31.00	31.50	31.50		29.50	27.50	28.25	.....
Wheat Mid dlings	.....														
Spring (Standard)	39.25	....	38.50	36.00	....	40.00	.....	.....	35.50	33.00	30.00	.....	.....	.....	.....
Soft Winter	44.75	.....	44.00	39.00	35.50	.....	.....	.....	36.50	.. ..	.....	34.50	.....	34.00	46.00
Hard Winter	.....	.....	... .	40.00	.....	42.00	.....	.....	38.50	.....	.....	34.50	33.50	34.00	.....
Wheat Millrun	.....	.....	.....	.....	.....	39.00	.....	.....	.....		30.50		.....	30.00	39.00
Rye Middlings	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28.50	.....	.....	.....	.....
High Protein Meals															
Linseed	50.50		49.45	49.40	.....	.....			47.50	46.60	44.50	47.50	49.60	49.50	46.00
Cottonseed (41%)	47.25	....	46.00	44.70	.....	.....	.....	38.75	42.50	43.50	45.00	41.00	.....	.....	.....
Cottonseed (36%)	44.25	....	43.50	42.20	.....	36.00	.....	37.00	40.50	41.50	43.00	38.50	.....	.....	.....
Tankage (60%)	....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	60.00	60.00	60.00	55.00	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	32.50	.....	.....	27.50	29.00	.....	.....	26.00	26.00	23.50	30.00
Gluten feed	46.95	.....	46.90	43.70	46.50	.....	.....	.....	42.70	39.80	43.00	.....	.....	.....	.....
Hominy feed (white)	49.50	....	49.00	....	47.75	45.00	.....	.....	47.00	45.50	.....	.....	42.00	.....	.....
Hominy feed (y'llow)	49.00	.....	49.00	.....	47.25	45.00	.....	.....	47.00	45.00	42.00	44.00	42.00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	43.00	.....	.....	.....	.....	.....	52.00
Dried Beet pulp	.....	.....	.....	....	37.50	.....	.....	.....	.....	.....	32.00	.....	.....	.....	37.00

FOND DU LAC, Wis., Dec. 12—Average cheese prices (majority of sales) f. o. b. shipping point: Single Daisies, 21¾c; Longhorns, 21¾c; square prints, 22¼c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Dec. 13: Single Daisies, 20½c.

NEW YORK, Dec. 15—Butter—Firm; receipts, 4,263 tubs; creamery extras, 44½c; specials, 45@45½c.

Eggs—Firm; receipts, 4,595 cases; white, fancy, 73@74c; fresh firsts, 58@67c; western whites, 38@72c.

CHICAGO, Dec. 15—The butter market today was steady following an advance of ½c on 92-score butter. Some early sales of 92-score butter were made at 41 cents. Trading, however, was only fair as buyers were conservative and were not inclined to buy beyond immediate needs. The centralized car market was steady and firm, with some inquiry noted for both 89- and 90-score cars. Storage centralized cars were steady, with trading quiet. Fresh butter—92-score, 41@41½c; 91-score, 40c; 90-score, 39c; 89-score, 37c; 88-score, 35c; 87-score, 33½c; 86-score, 32c. Centralized carlots—90-score, 39½c; 89-score, 37c; 88-score, 34½c.

MILWAUKEE, Wis., Dec. 15—Creamery, extra, tubs, 42c; standards, 40c; extra firsts, 41@41½c; firsts, 38@40c; seconds, 34@37c.

Eggs—Fresh gathered, firsts (new cases including cases), candled, 54@55c; miscellaneous lots, shipping cases returned, candled, 53@54c; seconds, dirties, 30@31c; checks, 29@30c.

Cheese—American full cream, Twins, 20@20½c; Young Americas, 21@21½c; Longhorns, 21@22½c; squares, 22@22½c; Limburger, new, 18@19c; imported Swiss, loaf, 42@47c.

"All knowledge is lost which ends in the knowing for every truth we know is a candle to work by."—RUSKIN.

American Farm Congress

At the Eighteenth annual sessions of the International Farm Congress recently held at Kansas City, the name of the organization was changed to the American Farm Congress. Seven major projects were approved for special attention during the next year, as follows:

1. Invite the co-operation of, and co-operate with, all agricultural associations and other friendly agencies, in order that all branches of agriculture and stock raising may be fully restored to a position of economic equality with other industries and occupations.

2. Improvement of inland waterways, with a view to navigation, in order that transportation costs on farm products may be substantially reduced.

3. Encouragement of co-operative marketing.

4. Further study of freight rates, with a view to securing revisions fair to agriculture.

5. Continuation of the Farm Congress policy with regard to the construction and maintenance of public highways.

6. Adequate relief for farmers on the government reclamation projects, and the removal of those projects from all paternalistic control or influence.

7. Development of a proper system of crop diversification.

By unanimous vote, the Congress went on record in opposition to the proposed Twentieth Amendment to the Constitution (child labor), and to the Howell-Barclay Bill which seeks to abolish the Railroad Labor Board in its present form.—American Farm Congress.

Over the Radio

The village tightwad was listening in on the radio at the home of a friend of his. It was Sunday morning and the sermon from the Shady Avenue Baptist Church of Pittsburgh, Pennsylvania, was being broadcast.

All at once he took the head phones from his ears and started to leave the room. "What's your hurry, Hiram?" demanded Mr. Brown. "Don't you like the sermon?"

"Sermon's all right," said Hiram, "but he just announced they were going to take up the collection. Guess I'll be going."—Everybody's Magazine.

Special Dairy Course

The following lines of study will be taken up in laboratory practice and lectures during a ten-day short course to be given at Iowa State College, Ames, February 11—21, 1925:

Buttermaking—This work will include starters, pasteurization of sweet and sour cream, cream ripening, churning, sweet cream buttermaking, butter judging, milk and cream testing, butter analysis, etc.

Ice Cream Making—Standardization, homogenization, testing of milk, cream, extracts, etc., preparation of special ice creams, freezing brick ice cream and fancy molds will be taken up in this course.

Market Milk—In this work, standardization of milk and cream, homogenization of cream, clarification, pasteurization, preparation of fermented milk will be presented.

Bacteriology—A ten-day laboratory course will be offered in the methods of determining the numbers of bacteria in milk, cream, and ice cream and the numbers of yeasts and molds in butter.

Testing and analysis of dairy products—This work is given so as to permit those wishing to do so to spend as much time as desired on tests in which they may be particularly interested.

Factory operators of national reputation are secured by the dairy department to assist the faculty in making an adequate presentation of the work in the short time allotted.

For further information address Dairy Dept., Iowa State College, Ames, Iowa.

Dairymen's League Buys Clover Farms Company

HOARD'S DAIRYMAN:—There is a report circulated quite largely upstate to the effect that certain milk dealing concerns have been purchased by the New York Dairymen's League. As is quite common, it is probable that this report is exaggerated. There seems to be abundant evidence, however, that so far as Clover Farms are concerned, the report is true. Official announcement of this is lacking at the present moment but is expected daily and is almost certain before this can be printed.

Clover Farms is a class one business almost exclusively and ranks well with the Sheffields except for volume. Indeed, it may be said very probably that there is no similar concern in the city having so high a class trade. The business is practically 2,000 quarts daily of bottled milk. There are seven up-state plants, two of which I know. One is at Afton, near my home, and the other at Homer in Cortland County.

There is every reason for the belief that the League will hold the upstate plants and will sell the city business to the Bordens. It could surprise no one if there might be a pretty clear understanding on this point between the Bordens and the League before the purchase has been completed. This in effect is the way the Empire business was acquired. That purchase gave the League about 5,000 quarts of business and it has been of great benefit recently in getting League milk into class one markets. As soon as the League purchase had been made the city end of the business was sold to the Bordens.

There was a wonder-struck membership in the League when the Empire City business went to the Borden Company. At the present time I feel pretty certain that the majority of League membership will uphold the sale of the Clover Farms' business in the city. We have had time to come to a better understanding of the situation and most of us will accept it with favor.

While I am personally not looking for further purchases in the immediate future, we hear of them. However, without any other purchases immediately there are certain to be changes in the League activities that will be favorable. There will still be discouraging features now and then but I have reason for saying that barring heavy withdrawals or other improbable catastrophies, the coming year looks considerably better than the past has been.

New York. H. H. LYON.



To Bring About

A Happy New Year

WELL, here's the close of another year. It hasn't been the best kind of a year, but neither has it been the worst. And the outlook for the future is the best the farmers have seen for several years.

In the meantime, all your farm machines have another season's work to their credit. It's time to check them all over, now, while you remember just what they can do. Which machines are worn out? Which ones are losing you money? Which methods are behind the times?

Important changes have come to pass in ten years' time as every man knows. Good farming has had to change along with the rest, to a faster, more efficient, more economical pace—and that has been largely a matter of change in farm machines. Farm machines today must save more valuable time and take the place of more expensive human labor. Many of the old, small-capacity tools, made for a time when labor was cheap, are wasting profit. Sometimes they eat up the cost of new equipment in a single season. The time for slow work is past. Now is the day of 10-ft. binders, 2- and 3-furrow plows, 2-row cultivators, mechanical power and motor haulage. You can't beat down the price of labor but you can make that labor do two or three days' work in one!

To make money your farm must handle the most productive work in least time, with least labor. Increase your crop yield per acre. Cut down your labor costs. Diversify. Plow more furrows as you go along, cultivate more rows, cut wider swaths. Plant every hill full—the missed hills in a field have a big effect on the yield. Save extra pounds of butter fat by efficient cream separation. Spread manure by the load instead of by the forkful. Let tractor and engine power help you.

Never was there a better time for the use of good judgment, combined with practical vision. Put the right pieces of modern equipment on your farm, handle them well, and you can't avoid a profitable year.

The law of supply and demand is swinging back to the sunny side of farming. Let's be ready for 1925 and ready with equipment to fit these new times. Nature helps him who helps himself—and the McCormick-Deering dealer is ready to show you the very latest in time- and labor-saving, yield-increasing farm equipment.

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Grain Binders	Hay Rakes	Cotton Planters	Riding Plows	Ensilage Cutters	Farm Wagons
Rice Binders	Hay Tedders	Listers	Walking Plows	Corn Pickers	Cream Separators
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Push Binders	Hay Loaders	Grain Drills	Spring-Tooth Harrows	Huskers and Silo Fillers	Feed Grinders
Corn Binders	Sweep Rakes	Broadcast Seeders	Peg-Tooth Harrows	Corn Shellers	Stone Burr Mills
Headers	Hay Stackers	Alfalfa and Grass Drills	Rotary Hoes	Engines	Potato Planters
Reapers	Baling Presses	Lime Sowers	Dunham Culti-Packers	Tractors	Potato Diggers
Harvester-Threshers	Corn Planters	Beet Tools	Orchard Tools	Motor Trucks	Stalk Cutters
Threshers	Corn Drills	Tractor Plows			Cane Mills
Mowers					Binder Twine

SOLD BY 15,000 McCORMICK-DEERING DEALERS IN THE UNITED STATES

Wallace on Co-operation

Agricultural co-operation should be kept free from domination by government agencies or commercial interests, says the Annual Report of the late Secretary of Agriculture, Henry C. Wallace, which has been transmitted to the President by Secretary Howard M. Gore.

Good, sound growth in the co-operative movement, says the report, has been somewhat retarded in recent years by over-enthusiastic persons who have held it up as a panacea for all the ills from which the farmers are suffering. The mere organization of a co-operative association is not the end to be attained. It is only the beginning. Success in co-operation depends on finding men capable of running co-operative associations, on the loyal support of the membership, and on getting a sufficient volume of business. Some converts to the co-operative movement urge that the government should proceed to organize the farmers in co-operative associations. But if the government should ask farmers to join some particular co-operative association it would put itself in the position of guaranteeing an enterprise without having an authoritative voice in its management. There is confusion in the minds of promoters of co-operative enterprises as to what the government may properly do.

Bills have been introduced in Congress in the last two years which would put the government squarely into the business of promoting co-operative associations, it is pointed out in the report. These bills would set up a great federal overhead agency and secondary boards of control and would have these bodies assume control of a number of highly important activities such as the dissemination of market news, a service which is already carried on efficiently by the Federal Department of Agriculture and which in the interest of the farmers should be kept in control of a well-organized impartial permanent government department devoted to the service of agriculture and free from entangling business alliances.

The relationship of the government to co-operation should be one of service. It should help the farmers market their crops just as it helps them to produce crops not by doing the work but by supplying information which the farmers can not get for themselves. To go further would be to injure rather than aid the co-operative movement. The need for strong co-operative marketing associations can not be overemphasized. They are absolutely necessary to bring about efficient and economical marketing and standardization of crops, but the movement should be truly co-operative and should be controlled by its membership.

Christmas Surprises



DANIEL Dare looked out the window and watched the big, white snow flakes flutter to earth. Already the ground was covered with snow. Danny had a big Christmas surprise planned for father and mother—one that he had worked hard for. So far he had been very successful in keeping it a secret. Five more days—a long time to keep a secret! A few minutes later school was over and with a shout Danny and his school mates dashed out the door. Why shouldn't they shout? Christmas vacation had come. As soon as the boys reached the yard, they scooped up large handfuls of snow.

"Hurrah! She packs," yelled one. The next minute a snowball went whizzing past Danny's ear. But Danny was ready and came back with a well-aimed shot that caught the offender smack in the chest.

Little did Danny realize what the near future held in store as he and his younger sister, Ethel, started for home, walking in the road where walking was the easiest. Suddenly a familiar voice called—"Danny and Ethel, don't you want to ride?" Both turned around somewhat surprised to hear their sister, Mary, calling them. High school must have let out early. As they turned they instinctively moved over to the side of the road. Luckily they did, for a big car, without warning and with a reckless driver at the wheel, boomed past. Had they not stepped aside, they surely would have been hit. The suddenness of it all scared them just a little, but Danny was more startled to see his sister's horse jump and rear. "Whoa!" commanded Mary, and she sawed on the reins. But to no avail—a runaway seemed certain.

All this happened in the twinkling of an eye. Danny was all action. He seized Ethel and shoved her almost roughly out of the way. Like a shot he leaped for Pat's head, grabbed the bridle and pulled with all his strength. The struggle was



DANNY HAS SOME CHRISTMAS FUN

short. The colt dragged Danny a few rods and finally came to a stop. Getting on his feet immediately, Danny petted and talked to Pat to quiet him.

Ethel came running up almost in tears, but when she saw that nobody was hurt the rain clouds disappeared. "Get in beside Mary," Danny directed. "Pat'll be all right in a minute. You better let me drive home though, Mary."

"Oh, Danny, that was brave of you," said Mary. "I didn't know what would happen next. I got scared when I saw I couldn't hold him."

"How did you happen to drive frisky Pat today? He's nothing but a colt."

"I know, Danny, but father wanted to use Molly this morning. I asked if I couldn't drive Pat. He didn't want me to, but I was sure I could handle him."

The drive home was peaceful enough though Pat pulled hard on his bit at times. Danny promptly proceeded to forget the incident, in fact his thoughts were on the big Christmas surprise he had planned for father and mother. The girls didn't forget though, and at the supper table told how Pat behaved. Mr. and Mrs. Dare shook their heads when they thought of what might have happened if it hadn't been for Danny's bravery and presence of mind. They were proud of what he had done.

At seven o'clock that evening the family started out in the bobsled for the school house. The program was indeed good, although not different from the Christmas entertainments in many country schools that evening. There were recitations, songs, and a little playlet in which Danny

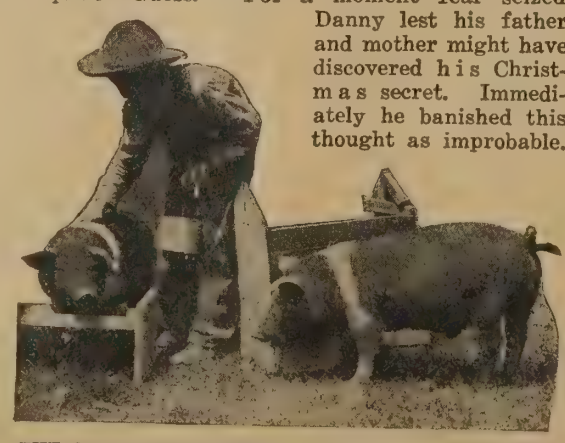


CHRISTMAS VACATION AT LAST!

took the leading part. All at once there was a jingling of sleigh bells and a great noise in the chimney and if there wasn't Santa himself with a big pack over his shoulder!

"My gracious sakes alive, but you are a jolly bunch. It isn't near as cold here as I thought it was going to be. My reindeer almost got overheated coming down into this warm part of the country, but anyhow I am mighty glad you folks have a little snow for my sleigh to ride on. It's a whole lot easier on those reindeer. I left them outside and they don't want to stand very long, so I'll have to hurry.

"I've brought a big pack of presents for you boys and girls. Mrs. Santa Claus wanted to come with me, but she bobbed her hair two days before I started and I told her she couldn't go, because who ever heard of a bobbed-haired Mrs. Santa Claus?" At that the children all giggled and many of the audience laughed. "Well, well, if here isn't a present for Johnnie Jones, and here is one for Tommy Atwood, and here's something for Daniel Dare,"—and so Santa continued until he had distributed a large number of packages to all the boys and girls and to many of the grown-ups in the audience. Miss Edsel, the teacher, received a large box of candy. That which Danny had received was a mysterious note which read, "Danny's Christmas Surprise—Guess." For a moment fear seized Danny lest his father and mother might have discovered his Christmas secret. Immediately he banished this thought as improbable.



THE PIG DANNY RAISED TO HELP PAY FOR HIS CHRISTMAS SURPRISE TO HIS FATHER AND MOTHER

He puzzled for a long time over the meaning of the note.

When Santa and his reindeer had left with loud clattering of hoofs, there was, of course, some little visiting to be done among the parents and many were the greetings of Merry Christmas given to dear teacher, Miss Edsell. In all, everyone thought it a very successful program. The holiday spirit was abroad.

Brother Tom was coming home but nobody knew about it except Danny and Dad. On the pretense that they had some Christmas shopping to do these two hitched up Jerry on the cutter about ten o'clock Saturday morning and drove off.

Sleighing was excellent and Jerry, a retired race track trotter, found the weather very much to his liking and limbered up his old joints enough to make the distance to town in a very short time. The noon train, of course, had to be late but that didn't lessen the joy of the homecoming. There were others down at the train, too, for several homes in that vicinity were expecting holiday guests. At last, afar off down the track, the train whistle split the air. The train was coming! With a roar and the hiss of escaping steam, engine No. 84 came to a stop. Danny and his father crowded up close to the passenger car and watched eagerly.

"There he is! Hello, Tom!" Danny could scarcely wait until his older brother was on the platform beside him.

"Hello, Danny! Hello, Dad! Isn't it great Christmas weather? Does mother know I'm coming? Tom was just bubbling over with questions.

"Hello, son! No, you should surprise her completely!" he chuckled. With that they hustled Tom over to the cutter, untied Jerry, gave him the word and were off. If Jerry had made a good record coming to town, he made a still better one going home.

"This air is more like it," said Tom, as he sucked in great gulps of the country air.



—Courtesy Wisconsin College of Agriculture.
MR. DARE'S SHEEP GET AN OUTING

"No, it isn't so bad," his father replied. Tom kept up a good stream of conversation in between attempts to catch his breath, and before he knew it, they were driving into the yard.

"Why, Tommy Dare!" exclaimed his excited mother, throwing her arms around her big son, "why didn't you tell your mother you were coming? Oh, this is a happy surprise!"

At the sound of Tom's arrival, his two sisters, Ethel and Mary, came hurrying out to join in the greeting. Danny grabbed his brother's bag and started inside, chuckling to himself because of another surprise he had for father and mother.

The day before Christmas Mrs. Dare sent Danny and Tom to the woods for the Christmas tree. Tom and Dan found just what they wanted and were carrying it home—tramping through the soft snow in the woods. Suddenly Danny stood stock still and motioned his brother to do likewise. Was that whining just the creaking of branches overhead or the wind coming up in the woods? No, it sounded more human. Both boys heard it, dropped the tree, and started out in the direction from which the sound seemed to be coming. They stopped now and then to listen and correct their course. The whining became louder and louder. They ran

this manner for perhaps five minutes. All at ce they spied in the brush the form of an ani-al. The whining was coming from there. They proached cautiously.

"Oh, it's a dog!" exclaimed Danny. "Poor fellow, 's got his foot caught in a trap. He's just a ppy, too."

Tom stepped on the trap and sprung it, releas-g the dog. The pup limped painfully out, hold-g his injured paw high off the ground.

"Tom, you go back and get the Christmas tree. l take the dog up to the house and tend to his ot. I think we can fix it up all right in a few ys. I never saw the pup before. Guess he's suf-ring as much from hunger as from his foot."

Under Danny's tender attentions the Collie was on made quite comfortable, with first aid on his ot, a full stomach, and a nice warm bed by the tchen stove. Ethel suggested that the pup be med. Danny named him "Chris" from "Christ-as". Rover, the family hound, took kindly to the w member of the circle.

That evening after the children had gone to bed, other and Father Dare decorated the Christmas ee.

"Now let's get the presents out," Mrs. Dare sug-sted. They came back quietly with their arms ll of bundles. They deposited the packages un-r the tree and Mrs. Dare said, "Now everything ready for the children in the morning. Isn't it retty? I wonder if Danny knows anything about s big Christmas surprise tomorrow!"

"Don't believe he knows a thing about it!" said ather Dare.

"Merry Christmas." It was Danny's voice that oke every one up the next morning. Ethel ran rst to her stocking, and then brought it back to ed with her, emptying its contents upon the cov-rs. There were nuts, candies, and an apple down the toe; besides this, she found two or three ackages which she hastened to undo. There was tiny handkerchief. Wasn't it darling? There was pocket comb. Then she found a string of beads hat just matched her new dress and, my gracious, ere was a game of Lotto. She bounced happily ut of bed and ran to thank her father and moth-r. It did not take the children long to get dressed ecause they were impatient to have breakfast and hores over so that they could get to the Christmas ree.

Danny hurried down stairs. He had to be first o get his packages under the tree before the oth-rs came down. He wanted his gifts to be a com-lete surprise. He dashed out to the machine shed nd returned, carrying a wooden box that appeared uite heavy. This he deposited under the Christ-as tree. From mysterious corners and secret iding places he quickly gathered several smaller ackages which he likewise laid under the tree. Toiselessly he stole out of the house and down to he barn for morning chores, where his father oined him a few minutes later.

The time dragged at the breakfast table, but at ast everything and everybody was ready for the ree and its prizes. Even "Chris" was begging to eave his warm place and get in on the excitement.

"Danny, you play Santa Claus and distribute he presents," said his mother. Whereupon no time vas lost by Danny. Such a wonderful lot of pres-nts! There were handkerchiefs for mother and he girls; Ethel got books, games, and a sled. Tom eceived a beautiful watch chain and penknife, wo ties, two pairs of socks, and a muffler. Danny ot a pair of skis, a pair of skates, a necktie, and knife. Mother received a box of stationery, a vork basket, and a fernery. Mary's big present vas a beautiful wrist watch. In addition she re-eived toilet articles and other delights for a high chool girl. Dad was mighty pleased with a new pair f slippers, a leather vest, and a warm pair of nittens knitted by grandma. Some of these were ifts from outside the immediate family—Aunt Emma, Uncle Ned, Grandpa, Cousins Isabelle and Frank. The pile of presents around the tree grew smaller and smaller. The wrappings and clutter on the floor grew larger and larger. At ast there was but one present left, at least that was all Danny thought were left.

Partly hidden behind the tree was the wooden box. He brought it forth announcing dramatical-y that it was to mother and father from Danny. Father got the hammer and proceeded to open it. Lo and behold, it was—what do you suppose—bet you can't guess. A radio!

"Why, Danny, just what we've been wanting, but didn't think we could afford. Where did you ever get the money to buy it, my son?"

"I've been saving up for quite a while. I earned every penny. Part of it was from trapping last winter, and then, you know, I got paid for keeping fire at school. I got quite a little money doing odd jobs—splitting kindling, helping with the chores, running errands, and I got some more money when I sold my pig—the one you gave me to raise as pay for swilling the pigs. Oh, I haven't spent all my money for this radio present. I still have a pretty good savings account!"

"Well, I'm glad that you're such a thrifty young fellow. I hope you keep it up. This is certainly a wonderful present, and one that the family will enjoy. Do you want to help set it up?" was his father's reply.

"Sure, you bet I do."

"There's one present you have forgotten or overlooked, Danny. There it is—see that envelope?"

"Why, it's for me!" Danny tore it open and read: "Merry Christmas to Danny. This is a day of surprises and rejoicing. We are rejoicing that all members of this family are together and that we have such a splendid, brave son. We are rejoicing in this glad season. There are more surprises in store for all of you. Be prepared!—Father and Mother."

"Gee, this sounds exciting," shouted Danny. "There is certainly mystery about this. Guess I better watch my step."

The boys and dad immediately started to work setting up the radio. While they busied themselves in this matter, mother and the girls picked up the Christmas muss and then went to the kitchen. There would be a big dinner today. At last the radio was ready to "tune in".

"WLS—Chicago—Sears Roebuck station—broadcasting from our Sherman Hotel Studio—" it came in very clear through the head phones.



OUT INTO THE WOODS WENT DANNY AND TOM IN QUEST OF A CHRISTMAS TREE

"She works!" exclaimed Danny thrilled at the wonder of it.

A few minutes later Danny heard sleigh bells in the yard. He ran to the window. He could hardly believe his eyes for there was Uncle Ned and Aunt Emma and Cousins Frank and Isabelle. Unknown to the boys, Mary had driven to town and met them at the train. "Tom—Dad—Look who's here!" he cried. Excitedly they left the radio and rushed to the door.

"This *is* a surprise!" said Tom when the first greetings were over. They all went gayly into the house and after they had taken off their wraps, they *must* see all the presents and hear the radio. What a jolly time they had! The women folks busied themselves in the kitchen and such marvelous smells came from that sanctuary! Why, it made you hungrier and hungrier every minute.

Sleigh bells again, but every one in the front of the house was so busy visiting and listening to the radio that they failed to notice them. When Mother Dare ushered in Ray Runkle and his wife —neighbors who had lost their only boy just Danny's age less than a year ago—the surprise and joy of Uncle Ned knew no bounds. Ray and Uncle Ned had been school boys together years ago and hadn't seen each other for a long time. Wasn't it just like Mother Dare to arrange these surprises and to spread the joy of Christmas to lonely hearts?

To say the least, it was "some feed" they had that day—roast goose, cranberry sauce, browned potatoes, steamed pudding, pumpkin pie, fruit, nuts, and candies, and many other good things. Uncle Ned was a good story teller and he kept the big tableful of folks in a continuous state of mirth.

Danny didn't have so much time to think about the letter he had received from his dad and mother at the Christmas tree. He did remember that it said something about surprises and he had surely had those. He was hardly prepared for the announcement his father made late in the afternoon after the Runkles had left. Uncle Ned and his family were going to stay for a couple of days at least. Chore time had come again. "Danny," said his father, "let's go out to the barn."

The family seemed very much interested so they all went along. "Take a look in here, Dan," said his father. Danny looked into the clean box stall, heavily bedded with straw.

"That calf is yours, son. It's a heifer—born this morning. Her mother has an official record of nearly 1,000 lbs. butter in a year. She's a good one, and I hope you take good care of her. From now on, though, she's your expense. You're a young business man and you must earn the money to pay for her feed. Perhaps we can arrange a schedule of pay for your help with chores.

"Your mother and I have been deeply moved by several of your deeds lately. First, your timely action and ready bravery stopped a runaway that might have resulted in serious injury to your sisters. Then last night your tender and humane treatment of an unfortunate dog that had been caught in a trap touched us. We have sought some means of expressing to you our appreciation of your deeds. Here it is."

Danny was overcome for a moment. He wanted to cry, but choked back the tears and said huskily, "Thank you ever so much. It's just what I've wanted for a long time. This has been a most happy Christmas, and full of wonderful surprises."

"So say we all," said Uncle Ned.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

History tells us that cows are older than Christmas. Some thousands of years before Christ was born in a manger cattle existed on this earth. Dairying as we know it today has been born within the past few centuries. In fact, some of the most rapid advances have been made within the past 100 years. Is it not well to bear these facts in mind as we discuss some of the leading articles in the December 12 issue of Hoard's Dairyman? Whereas in days of old, cattle were used more as beasts of burden, today they furnish food to build nations.

When cotton failed what did Julian Nipper do? In 1920 this North Carolina farmer decided that cows could treat him no worse than cotton so he increased his herd, went in with two of his neighbors and sold milk to a creamery in Raleigh. (See article "From Cotton to Cows".)

Has his venture been successful? "We are milking 18 cows now and I sell about 40 gallons of milk a day," says Mr. Nipper. "I am getting an average of $12.80 a day or $384 a month. My grain costs me $87 a month leaving nearly $300 for my labor and incidental expenses."

How has dairying affected the fertility of the soil? "When I grew cotton," Mr. Nipper declares, "I had to buy high priced complete fertilizers and top-dress with nitrate of soda or I got no cotton worth picking. Now, with the aid of manure, the legumes, and acid phosphate I am building up my land with less labor."

Why did O. S. Larson of Iowa go into dairying? Because he wanted skimmilk for the pure-bred pigs that he fitted for sale every year. He noticed that the cream brought a surprising income, and now he has 40 Holsteins that convert home grown feeds—corn silage, sweet clover pasture, alfalfa hay, and ground grains—into cream checks. (See article "Hogs Showed Way to Profitable Dairying".)

Name some advantages for running cows loose in the barn. (1) The cows can more easily be provided with fresh air. (2) They are more comfortable. (3) They keep clean. (4) The fertility in the manure is saved more completely. (5) Labor is saved. (6) Saving in barn equipment and buildings costs. (See W. J. Fraser's article "Suggested Plans for Running Cows Loose".)



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

For Sale—My entire herd of 70 high grade Holsteins, own raising. Must sell at once. Bargain. Would exchange for high grade Guernseys T. B. tested. Am going in the bottle milk business. MEURER'S STOCK FARM, Genoa City, Wis. 20-*

For Sale or Trade—Two 1000 yearly record bulls for grade or pure-bred cows. OSCAR WESTERHEIDE, New Douglas, Ill. 20-*

Registered Holstein bulls and heifer calves. Homestead and Matador breeding, $30 and up. O'CONNOR BROS., Watertown, Wis. 21-6

Holstein Bull Calves from large dams. Cheap. Herd under federal supervision. FARMOSA FARMS, Garden City, Missouri. 21-4

Western Dairyman—for sale, one hundred seventy-five high grade Holstein cows and heifers. Seventy-five dollars carload lots. WILLIAMS BROS, Lamar, Colorado. 21-6

Holstein springers and fresh cows in car lots. W. STRAUSS, R. 5, Watertown, Wis. 22-2

Registered Holstein female calves, Ormsby and Homestead breeding, one to eleven months old. Clean herd. Price right. M. E. HOLCOMB, 374 Hanover St. Milwaukee, Wisconsin. 22-2

Holsteins—Splendidly marked, high grade heifers, 6 weeks old, $20.00 each, shipped C. O. D. Registered bull calf given free with 10 head order. E. HOWEY, 1092 James, St. Paul, Minn. 22-2

Registered Holsteins, bulls and females. Ormsby breeding. EMIL HEINZ, Owatonna, Minn. 22-2

Registered Holsteins—Springing heifers and cows bred to thousand lb. Homestead sire. Accredited. WINCOWIS FARM, Neenah, Wis. 22-4

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

Milk Producers—Let us figure with you on a load of Holsteins or Guernseys. Clean stock, heavy producers. Write or call EDGEWATER STOCK FARM, Fort Atkinson, Wis. 5-*

For Sale—Carload of Holstein springers from 3 to 6 years old. T. B. tested. E. E. LEWIS, R. 3, Racine, Wis. 23-4

Holstein Bull—Get pedigree. Three of his dams averaged 108 pounds milk 1 day. 40.48 pounds butter 7 days. $100. ROY HARRIMAN, Appleton, Wisconsin. 23-8

$40.00 will buy registered Ormsby calves, both sexes, 1100 lb. breeding. Best individuals. FRENCH BROS., Shipman, Ill. 23-2

$1,000 will buy five registered, six high grade Holstein cows. FARNERHOLM DAIRY, Colfax, Wisconsin. 23-2

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

City View Farm offers for sale Guernseys, male and female, of all ages; May Rose Langwater breeding out of good A. R. dams Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 20-*

Fifteen registered Guernsey cows and heifers. Bred to a son of Cherub's Prince. For prices write INLAND DAIRY FARM, Little Falls, Minn. 22-2

Write for sale list of 11 Registered Guernsey bulls, 2 to 12 months, 6 have dams and grandams with A. R. records averaging 732 pounds fat. Accredited herd. HOMER RUNDELL, Livingston, Wis. 22-*

Registered Guernsey Bull Calves. A. R. breeding. Forty dollars up. B. McADAM, Mosinee, Wis. 15-spl

Registered Guernsey Bulls—Six to twelve months old. Accredited herd, best of breeding, at farmers' prices. G. A. BRUNSTAD, Chippewa Falls, Wis.

Three Registered Guernsey yearling bred heifers, well marked, $100.00 each. MORT WOODS, Ardmore, Okla.

Start in Registered Guernseys with my northern farmer raised and priced May-Rose females. Choice twenty head. Sire, grandson Langwater Warrior, Golden Secret. GLYN SARGEANT, Long Prairie, Minnesota.

Twenty Ayrshires Accredited herd. **FOREST** EWERS, Richland Center, Wisconsin. 22-2

Two Pure Bred Jersey Yearling bulls. Ready for service. Herd accredited. No abortion. RAVINE FARM, Highland Park, Ill. 23-3

Serviceable Jersey Bulls. Hood Farm Breeding. Record dams. $100. Accredited herd. RALPH CONSTANCE, Waupaca, Wisconsin. 21-4

STOCK WANTED

Wanted—Thirty high grade Guernseys, young and T. B. tested. State best cash price; must be a bargain. MEURER'S STOCK FARM Genoa City, Wisconsin. 20-*

Wanted—Registered Holstein bull well bred, extra good individual. Yearling or over. ERNEST SEDGWICK, Greenup Ill.

Wanted—10 grade Guernseys fresh or close up. Must be accredited. ELM HURST FARM, Robbinsdale, Minnesota. 23-2

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

SWINE

Duroc boar and sows for sale. PHILIP LEHMER, Princeton, Wisconsin. 22-2

POULTRY

For Sale—S. C. W. Leghorn cockerels, choicest breeding, $1.00 each. R. J. COLLENTINE, Delavan, Wisconsin.

HONEY

Clover-Basswood Honey. New sixty gallon feed cooker. ELIAS FOX, Union Center, Wisconsin. 21-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

Alfalfa Hay For Sale—Write for delivered price, ALBERT MILLER & COMPANY., 192 No. Clark St., Chicago, Ill., or call our representative LaCrosse, Wisconsin. Telephone 851-A. 19-*

Hay for Sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 23-Spl

Choice baled alfalfa offered $19.00. FRANK THOMAS, Delavan, Wis. 23-2

First cutting baled alfalfa hay cured in cocks under cover in field. Price $20.00 per ton. F. O. B. Fort Atkinson. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 23-3

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

SEEDS

Fore Grimm and Cossack Alfalfa seed, our own raising, hardiest and best. Send postal for samples and folder giving full information. TRIANGLE RANCH., Cottonwood, South Dakota. 22-*

Bargain Prices on 1923 Minnesota grown seed corn, grass seeds, seed grains. Write today. NORTH STAR FARM, Cokato, Minn. 23-4

Jacques' Seed Corn—North Wisconsin grown, field selected before killing frosts, thoroughly fire-dried, every bushel tested. 95-100% germination and strong vitality. 30 days' tiral, money-back guarantee. Golden Glow, Cold Resistant Golden Glow, Wisconsin No. 8, Rustler White Dent. Write for booklet. WM. H. JACQUES, Neilsville, Wis. 23-2

TOBACCO

Homespun Tobacco—Chewing five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe free. Money back if not satisfied UNITED TOBACCO GROWERS, Paducah, Kentucky. 20-4

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50. Smoking, 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and receipe free. FARMERS UNION, Paducah, Kentucky. 21-4

Tobacco—Three year old leaf. 8 lbs. chewing, $2.60; 8, smoking, $2.20; 8 second smoking, $1.40. Pay for tobacco and postage when received OLD HOMESPUN CO., Hawesville, Ky. 22-4

FEED BAGS

We are now paying higher prices for empty feed bags. Write for quotations. THE DAYTON BAG & BURLAP CO. Dayton, Ohio. 23-*

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

Wanted—General Agent to handle our complete line, fruit and ornamental, and appoint sub-agents. Liberal terms. Pay weekly. HOWE-CAMPBELL NURSERY CO., Rochester, N. Y.

PATENTS

Patent-Sense—Free book for inventors seeking largest deserved profits. Write LACEY & LACEY, 753, F. St., Washington, D. C. Established 1869. 19-52

Patents Procured, Trade Marks registered. A comprehensive, experienced, prompt service for the protection and development of your ideas. Preliminary advice gladly furnished without charge. Booklet of information and form for disclosing idea free on request. RICHARD B. OWEN, 86 Owen Bldg., Washington, D. C. 21-Spl

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hunting Hounds, Feeds, Medicines, Supplies, Catalogue. KENNEL JOURNAL, Herrick, Ill. 23-4

Scotch Collie Pups bred from real heeling stock. $5.00 each. Trained dogs eight months old, $15.00. S. C. BUSH, Maple Grove Farms, Pope Mills, New York. 23-4

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

MACHINERY

Dairymen Attention—I have a three unit Sharples milker complete that has been used but very little that I would like to trade for some good Registered Holstein cows that are fresh or due soon. I have no use for it since I have sold most of my herd. LANE W. JOHNSON, Assumption, Ill.

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—Three De Laval milker units, nearly new, good rubber. Bargain. WALCOWIS FARMS, LAKE GENEVA, Wis. 21-*

Wanted—Butter and cheese equipment. State price in first letter. E. G. LEWIS SEED CO., Media, Illinois. 23-2

TRUCKING

Trucking Wanted—Would like hauling dairy products from producer to dealer. Must be on hard road. I have a new International Speed Wagon. Will go anywhere east. State wages, distance and gross weight to be moved. LAWRENCE JARBOE, Clarence, Missouri.

FOR RENT

For Rent—March 1, on share basis, our dairy farm of 224 acres, three miles from town; nine room house, good barn equipped to milk 32 cows. De Laval Milker We buy all the milk produced at good prices. Must be good farmer and understand breeding of pure-bred cattle and know how to produce clean milk. References required. SCHOLL DAIRY CO., La Porte, Indiana.

Farm for Rent—Cash. Ninety-one acres, mostly black loam and 27 acres near for stock. Running water in pasture, tanks in barn and yard and bowl in each cow stall. 2 barns, well, house and machinery, ice and hog buildings, corn crib, 2 chicken houses, one 60 feet long. Silo. Possession at once or in spring. Seven room house. Write H. S. PARKER, R 3, Galesville, Trempealeau County, Wisconsin.

For Rent—On shares or cash, 170 acre farm, Elgin, Ill., good buildings, large silo, spring water. 35 Holstein cows. Require A 1 farmer, must have own help, horses and implements. Possession at once or March 1st. References. Address G. McNeil, 251 E. Grand Ave., Chicago, Ill. 22-2

Dairy Farm for Rent on shares. About 240 acres, 120 under plow, balance pasture. Pasture situated on Rock River and is very good. Farm located on Rockton Road one mile south of Beloit. GEORGE W. SHAW, R 1, Beloit, Wis.

For Rent—Dairy farm, 432 acres. Located at city limits, Beloit, Wisconsin. DON VAN WART, Agent, Beloit, Wis. 21-4

WANTED TO RENT

Wisconsin Agricultural College graduate, married, raised on farm, wants to rent equipped dairy and grain farm in southern Wisconsin or northern Illinois. PAUL A. THATCHER, Danbury, Wis.

COMMENCING JANUARY 1, 1925, the rates for advertising on our Special Opportunities page will be as follows: Eight cents per word each issue for farm labor advertising and twelve cents per word for other classified advertising copy. Always count address. This small increase is necessary because of increased circulation and other publishing expenses.

FARMS FOR SALE

Make more money on a small farm in San Joaquin Valley, California, where you can work outdoors all the year. Splendid opportunities here for the man of moderate means. Twenty and forty acre farms produce alfalfa abundantly. Dairying, hogs and poultry make good returns; and staple varieties of fruits yield dependable profits; a combination of these means a well balanced farm, with good income throughout the year. Winterless California offers much to the man looking for a country where he can get the most out of life. Climate is delightful with long growing seasons; wonderful roads; excellent schools. Nearby markets and co-operative marketing associations afford profitable outlets for all produce. A small one family farm, cutting out high labor costs, insures success. There are no winter handicaps. San Joaquin Valley illustrated folder mailed free on request. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Ry., 951 Railway Exchange, Chicago, Ill. 21-Spl

$750 Get 194 acre farm, horses, 12 cows and heifers, poultry, implements, tools, hay, corn, fodder, etc., included to close now; convenient busy depot town; 100 acres loamy fields, pasture, estimated 150,000 ft. timber, sugar bush, apple orchard, pears, plums, cherries, grapes; substantial 9-room house, large barn, 2nd barn, poultry house. Low price $2,500 for all, only $750 needed. Details pg. 64 big Bargain Catalog, illus. money making farms and business chances. Free. STROUT FARM AGENCY, 150DL Nassau St., New York City.

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

"Wisconsin Opportunities"—Free Wisconsin bulletins. Soil climate, crops. IMMIGRATION DIVISION, Wisconsin Dept. of Agriculture, Capitol 25, Madison, Wisconsin." 19-8

220 acre dairy farm, well equipped, two concrete silos, permanent pastures, one hundred Jersey cows and heifers. Sell milk fifty cents gallon wholesale. Would consider partner. L. S. HARVARD, Live Oak, Florida. 22-2

Warm, Sunshiny Winter Days, combined with finest markets and ideal pasturing and feeding conditions, make dairying a pleasant and profitable occupation in the Elephant Butte irrigated district of New Mexico. No zero days, no blizzards. Long pasturing season, four or five cuttings of alfalfa, 12 to 20 tons of corn silage to acre. Highly successful co-operative association pays $3.50 a hundred for 4 per cent milk, returning to producer 64.8 cents of the consumer's dollar. For full information and illustrated folders address Dept. 101, FARM BUREAU, Las Cruces, New Mexico. 22-2

Mississippi Lands—Bargains in farm lands suitable for truck farming, dairying or stock raising. Address R. A. HOLMES, Owner, McComb, Mississippi. 22-2

Improved farm in Minnesota and North Dakota can be purchased on 34 years time on small cash payments by persons who have their own help, equipment and live stock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Railway, St. Paul, Minn. 22-*

Opportunity awaits you in Southeastern Montana. Corn, alfalfa, beans and small grains are dependable crops on Northern Pacific Railway Company's selected low priced lands—20 years to pay at 6 per cent—direct from Company to farmer. Address J. H. COOK, Eastern Land Agent, 803, Northern Pacific Railway Company, St. Paul, Minn. 17-Spl.

For Sale—Dairy farm, well equipped, metal silo, near market, milk selling 20 cents. Splendid climate. Costs nothing for valuable information. Aged owner. L. B. 394, Southern Pines, N. C. 23-4

Montana grain farms and stock ranches for sale or rent. Correspondence invited. J. B. GERGEN, Division B, Box 1197, Great Falls, Mont. 17-Spl.

Choice farm must be sold. Write FRANK THOMAS, Delavan, Wis. 23-2

FARMS FOR SALE

California State Land Board has a number of desirable irrigated farms of twenty and forty acres in San Joaquin Valley for sale to bona fide farmers on 36½ years' time. Complete irrigation system. Price per acre varies according to location. Five per cent of purchase price payable when deal is made; remainder in semi-annual installments extending over a period of 36½ years, with 5 per cent interest annually. Your opportunity to acquire a farm in winterless California. All deciduous fruits profitably grown; alfalfa is a paying crop. Ideal conditions for stock and poultry. Good schools and unsurpassed roads. Fruit associations market your crops, relieving you of marketing problems. You can farm all year in California. Splendid opportunities here for the man of moderate means. State Board's pamphlet also Santa Fe illustrated folder describing San Joaquin Valley, mailed free on request. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Ry., 951 Railway Exchange, Chicago. 23-Spl

For Sale—Fine 146 acre farm on improved road near high school, church and railroad. Almost all blue grass and clover. Plenty water. Large house and barn. Price $5,000. One-half cash. WILLARD GROVER, Bidwell, Gallia County, Ohio.

MISCELLANEOUS

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-1

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accomodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Will make a fine Christmas present. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 21-

Milkmen—Use Fiske's Loose Leaf Route Book. Write for description. P. BAKER FISKE, Attleboro, Massachusetts. 22-

Pure Wool Comforter batting direct from the mill. Guaranteed 100% All Wool, all weights. Write for prices and free sample. SEIFERT MILLS, Jefferson, Wisconsin.



Advertising in this department is 7c per word. Remit in advance.

HELP WANTED

Wanted—Married man, no children preferred, for general farm and dairy work. Wife to help in house. Must be refined and experienced. Steady employment, good wages, good home. MARIONDALE FARM, Genoa City, Wisconsin 22-

Mail Service Employees Needed. For instruction write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 16-*

Firemen, Brakemen, for railroads nearest their home—everywhere; beginners $150—$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5, Brooklyn, N. Y. 21-

If you can produce results on a farm running good pure-bred Guernseys on A. R. work this is your opportunity. Salary and per cent of net earnings only plan which will be considered. Applicant must give fullest information regarding age, nationality, family, experience, etc., to get any notice from his reply. Address BOX 379, Care Hoard's Dairyman.

Wanted—First class milker on an up-to-date dairy farm, either married or single. Apply Chas. J. Maurer, Supt., GRAPE WILD FARM, Escalon, Calif. 23-

Wanted at once, man who can milk 20 head of cows. Wages $60.00 and board. QUINCY JERSEY LIVE STOCK CO., Y. B. Luchsinger, Mgr., Quincy, Florida. 23-

Young Man wants job on dairy farm. Address BOX 377 Care Hoard's Dairyman.

Wanted—Married man, middle age, with help, experienced in dairy and farming. Good opportunity for right man. Ayrshire cattle. AYRSHIRE BREEDERS & DAIRY CORP., Freeland, Pa. 23-2

Wanted—Single, experienced dairyman for forty cow pure bred herd at Northern Ohio. Welfare institution. Good living conditions, pay and assistance. Address BOX 380, Care Hoard's Dairyman.

Wanted—Young single man with reference, for general farm work by year, month's trial. Good equipment. HORACE REDDELIEN, Oconomowoc, Wisconsin.

Wanted—Single man for barn and milk house work. Only clean, reliable men need apply. State wages expected first letter. THOS. BOHLANDER, R 3, Elwood Indiana.

POSITION WANTED

Position Wanted by Dairy Farm Superintendent, American, New Yorker, do not drink or smoke, 40 years of age, life time experience, 15 years managing large estates in Illinois, Texas, and Maryland. Enviable reputation as a real business manager with systematic methods prevailing through entire organization. A close student with years of practical experience on Dairy Sanitation, the production of select, certified or pasteurized milk, the breeding of cattle for production and individuality, the making of "Advanced Registry" records without physical injury to the producers. All modern farm methods, especially those related to successful dairying such as propagation of alfalfa, ensilage, and grain crops. Can start your proposition from "ground floor" if necessary, select lands, cattle, or take a losing proposition and plan, execute, and operate under these plans, to an economic success if proposition is worth effort. My breeding experience is broad, besides dairy and beef cattle I have bred as many as 1200 sows and 100 mares in one year and have managed the largest herd of hogs in the world. I want a big, hard job and am available January 1st, 1925. Satisfactory reference as to ability and honesty. Address W. A. SIMPKINS, Salisbury, Maryland.

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Position Wanted—Experienced dairy farm manager wants position on up-to-date dairy farm. Willing to take a real proposition on a profit sharing business. Thoroughly experienced in purchasing herds and erecting modern buildings. Now managing the largest dairy farm on eastern shore of Maryland producing certified milk. Address W. A. SIMPKINS, Salisbury, Maryland. 18-*

Have you a position open for a good herdsman? Fully understand Holstein cattle and development. Also understand good farming. Like to hear from Minnesota or California. Age 30, married, no children. Reference. Address BOX 373, Care Hoard's Dairyman. 22-2

Single Man wants position. Experienced test cow feeder and milker also producing Grade A milk. $60 a month. BOX 77, Merrillan, Wisconsin.

Dairy or Estate Manager—At liberty March 1, 1925. Consider only high class proposition. Salary or percentage, age 40 years. Address BOX NO. 378, Care Hoard's Dairyman.

Wanted—Position as working manager on small, well located farm, with good buildings, stock and equipment, where I can do the work alone most of time. Life experience, best of references, married, age 41. C. EICHINGER, 134 Maple St., Waterloo, Iowa.

WAYSIDE MUSINGS

"But Mary Kept All These Sayings, Pondering Them in Her Heart"

JOSEPH S. MORRIS, WISCONSIN

THE Christmas story is one of utmost simplicity and full of gracious, heart-stirring beauty. It is a story to be meditated, to be felt, rather than one to be argued and quarreled about. Life may be cher by carrying in the mind and eart the narratives of the Gospels: he wise men, seers of the Orient, ho had seen His star in the ast and came seeking Him; the hepherds out on the hills who had eard angel-messengers singing in the reamy night and hurried away to ok into the face of a babe; St. John riting of His coming as the incarnaon of Deity, the expression of the ternal Heart and Mind in a perfect uman life—these are the priceless reasures of Christian thought.

The long-anticipated event had indled human hope and stirred the nagination. In the necessarily excitg incidents of that birthday one annot lose sight of the mother of esus. As Wise Men came, bearing ifts and kneel to worship, and simple hepherds came to adore, Mary was to ponder these things in her heart". hrough devoutness and loving serve she was to guide the early life of his child who came to fulfill a great ope of the human heart and whose ords and teachings were to go down he ages challenging the souls of men.

We are living in a very wise age ut still we, humble folk, need hopes nd dreams and prayers, and the lorious thought that the Divini that touches all the universe, verywhere, has a care for our imple humanity. We need food nd clothing and shelter and a measre of pleasure, but we also need poetry and music and the mystical presnce of God. We need assurance that ve are not battling against a blind orce that tears and hurts and destroys but are struggling to understand our powerful world and the "God within the shadow keeping watch above His own".

Following in the footsteps of the loving mother of Jesus, mothers down the ages have looked with a holy joy upon their newborn babes, and have carried in their hearts and minds, dreams, hopes, holy ambitions, and have, sacrificially, guided the feet of their children in the path of useful and noble life. When the mother-love of the world dies the world itself will die. In spite of all that is unjust, unkind, lacking in brotherhood, still, the good we have outweighs the ill. The good will of the world is the compounded interest of the investment of love.

It is a good thing that we have this Christmas holiday once in every year to remind us how much of good will there is on earth.

Let the emotions of generosity and good will have free play. Christmas comes but once a year. We'll all be the better for having given our souls the chance to expand under the Divine impulse to give good gifts. In all our giving let us make sure that we do not omit to give to someone who is really in need. Make it a good gift, a gift with joy and gladness in it.

This is essentially a holiday of childhood. I have never seen anything more beautiful than the light in the eyes of children at this time of awe and wonder and anticipation. I cannot think of anything more cruelly unnecessary than that assumed wisdom that would rob childhood of all illusions. Children have a right to dreams and angels and laughter and Santa Claus. When illusions are gone then for our soul's peace and happiness we need to be reillusioned.

"Glory to God in the highest,
And on earth peace among men."

Friendly Talks for Farm Folks

Mrs. James Calkins has been conined to the house with a severe illess for the past three weeks, which ecessarily kept her entirely off her eet and out of the thick of the housevork. After the lady was able to be p and doing once more—at the ternal round of duties which only a arm wife and mother could possibly ccomplish in one of God's twenty-our hours—her husband asked her f it didn't seem pretty good to be so aid up for once that she could lie ll day and rest, no matter how pressng the chores. "Land Sakes!" answered his recovered and once again nergetic spouse, "I never supposed 'd get so tired of just plain resting hat I could fly right out of the winlow! As far as I'm concerned, Jim, I'd ather wear my fingers and feet to the one working and rustling around, han lie abed and idle. How some folks tand it is more than I can see. Why, t was the happiest day of my life when I got off that old bed for good and went to doing dishes! I'll never complain again about *work*."

The new ice cream slogan for which a $1,000 prize was awarded goes to a Canadian girl. It is, "Serve it, and please all". A most excellent slogan in our opinion, though perhaps a bit too similar to other very successful ones—that of the Paint and Varnish Makers'—"Preserve the surface and you save all", and the Dairymen's League Products' slogan "Convince yourself". However, if it persuades people to use more ice cream —made of milk—we and the rest of the world should worry about similarities.

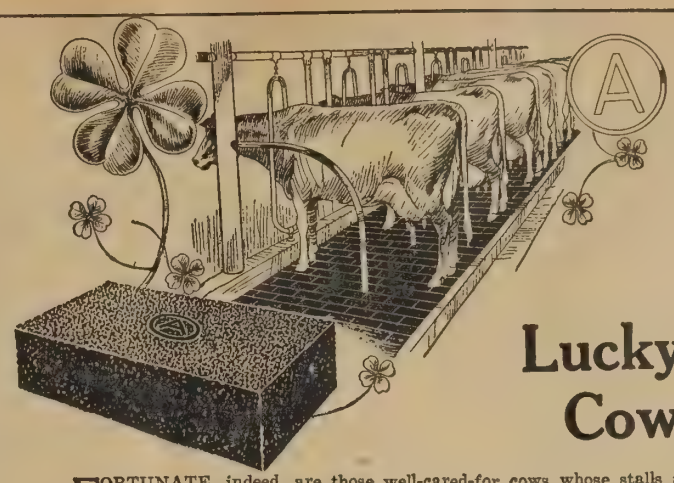
Little Roy Johnson is certainly going to be one of the country's leading financiers some day, as he has announced to his thoroughly cowed parents that his price for taking castor oil next year will be 25 cents a spoonful instead of the former ten cents.

It's so cold in Barney Wright's old cow stables as usual this winter that the hired man complains to the neighbors that Barney's cows all give ice cream instead of warm milk.

Folks who aren't used to eating uncolored oleo make some shocking mistakes when they visit the neighboring farmers who are penny wise and pound foolish in this respect. For instance, Sid Chantler stayed for dinner one day at Porter Hitchcock's, and when the brick of oleo was passed, Sid cut off a generous hunk, thinking it was cheese and being very fond of the latter food, started to eat it "au natural". Of course, he quickly discovered his error, but all the Hitchcock children snorted and giggled. So Sid got up on his ear a little and decided to play the game his own way. He ate his bread dry. Of course Porter noticed that, and inquired if Sid had sufficient butter. Sid said he hadn't. So Porter again passed the plate of oleo. "Oh, thought you said 'butter'," said Sid, very impolitely, it is agreed. Upon which Porter got red in the face and his kids forgot to laugh. Queer, isn't it, how such little misunderstandings get neighbors so down on each other in time. Sort of on the order of poolers and non-poolers.

The idea of a lot of farmers, county agents, and agricultural experts is to make a spear of grain grow where now grows a weed. It sounds all right, but until grain year in and year out is worth more than weeds, why bother?

New York. HELEN S. K. WILLCOX.



Lucky Cows

FORTUNATE, indeed, are those well-cared-for cows whose stalls are floored with Circle A Cork Brick. They are protected against chill and dampness, safeguarded against dangerous slips and falls. They are comfortable, contented and healthy because their stall floors are resilient, warm and sanitary.

And fortunate, too, are their owners, for cow comfort is repaid in milk dollars. Warm, dry, nonslippery floors of Circle A Cork Brick *save* dollars in veterinary bills and *make* dollars in increased yield.

Every dairy man should have the 32-page, illustrated Circle A Cork Brick booklet. Mailed free with a sample brick. Just write Armstrong Cork & Insulation Company, 112 Twenty-fourth Street, Pittsburgh, Pa.

Circle A Cork Brick Floors

For Dairy Barns and Hog Houses



Gives Lifetime Service

This mill has corrugated steel rolls like big mills. Grinds twice as fast as burr mills at half the expense. No burrs, no stones to wear out. Trouble-proof. Guaranteed to get the wild oats. You'll get lifetime service from the

HOWELL *Roller Feed Mill*

Many farmers are making extra profits out of their engines, granaries and spare time. You can grind all your stock feeds, rye and graham flour **profitably** with a Howell.

Thirteen sizes—any capacity—a size for any engine. Write for Catalog.

R. R. HOWELL & CO., 4 Malcolm Ave. S. E., Minneapolis, Minn.

FOR SALE

Carload of Yearling Grade Holstein Heifers

—$25 Per Head F. O. B. Chippewa Falls, Wis.—

Can also furnish older or younger heifers in carload lots. Write for prices on pure-bred calves, Holsteins or Guernseys; also cows, either breed, grades or pure-breds. Prices reasonable.

C. H. MEREDITH, Dairy Cattle Commission Agent

R. 3, CHIPPEWA FALLS WISCONSIN

A SHOW BULL FOR SALE

Yearly Record Grandson of K. P. O. P.

KING PIETERTJE JEWEL KISMET, born July 27, '24, is well grown and a real show prospect. His sire, King Pietertje Jewel Korndyke, a year record son of K. P. O. P., was six times grand champion at the larger eastern shows this fall. His dam produced 18,012.1 lbs. milk, 782.76 lbs. butter as a 2-year-old. She is one of our good individuals. This youngster is priced to sell and guaranteed to be exactly as represented.

Write for complete information. Refer to calf eartag No. 361.

PINERY FARMS - - - - MENTOR, OHIO

Foundation Holsteins

Selected With Care

Ask for prices and particulars on sons and daughter of our Two—1st prize bulls at the Northwest Dairy Exposition and the Minnesota State Fair. You will be surprised to learn how reasonable we sell these choice animals. Accredited herd.

ONAL HOLSTEIN STOCK FARM
Alexandria Minnesota

REGISTERED GUERNSEYS

FOR SALE

MY JUNIOR HERD BULL, sired by Glenwood's Champion, five years old, $200.

Also TWO-YEAR-OLD BULL, Beauty Eagle breeding, A. R. dam, $150. Warranted breeders; both these exceptional value, worth double.

Superintendent, LA BELLE KNOLL FARM
Oconomowoc Wisconsin

Virginia Farms and Homes

FREE CATALOG OF SPLENDID BARGAINS.
R. B. CHAFFIN & CO., Inc., Richmond, Va.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

A Half Century of Progress

(Continued from page 696)

today we have many thousands of miles of hard surfaced road, much of it as permanent as a highway can be built; open and passable every day of the year. These mean more to the business, the school, the educational, the spiritual life of the open country than words can be made to express.

Fifty years ago the agriculture of the country was on the self sufficing system. Each farmer attempted to raise enough to "bread him through" and feed the "critters" till pasture should start again in the spring.

Now, farming is definitely on a business basis and the objective is the production of wealth. This change has come about because in our day we have a marketing and transportation system whereby anything and everything produced on the farm can



YESTERDAY THE "GEE 'N' HAW" AND TODAY "STEP ON THE GAS"

be sold at some price for cash on any day of the year.

Without this world wide market, a change from the self sufficing system would have been impossible. And without this change to one providing surplus wealth above the day by day family living, the modern school and road systems would have been impossible. So would much of our machinery that lightens labor and increases production to the point of paying for itself and more. Life has become truly luxurious. Let us give thanks!

Any review of progress would be grossly incomplete that did not take note of the fact that recent improvements in machinery and methods have released from the land and the labor of producing food a very large fraction of the population who now make our clothing for us, erect our buildings, manufacture our automobiles, our machinery, and a vast multitude of small commodities ranging all the way from luxuries to down right necessities as we count necessities now.

All this has not only released the farmer, his wife, and his children from much laborious toil with meagre recompense, like raking hay by hand and making soap or candles, but it has made a market for his products —a cash market whose income can be used in a thousand ways that lighten the burdens of life and enrich it beyond the wildest imagination of our immediate forefathers.

The rural mail delivery, an improvement of recent years, brings to our doorstep daily the best newspapers and magazines the world has ever produced and for a trifle. We hear of an event in Europe by print literally before it happened according to the calendar and when an airship leaves an European port for America we see a picture of it in the evening paper, transmitted by cable.

We set our watches and get the weather news by radio. Literally the ends of the earth are ours and the music of the spheres comes in over the loud speaker.

It is quite impossible to compare the present day to the times of fifty years ago. It is like trying to compare two worlds for example, Jupiter and Mars, when we have never been on either.

Nor is this illustration so far fetched as it may seem. We who can remember back over half a century are but reviving the recollections of childhood with no very clear cut notion of what life then really was. Those who lived it then are gone and if they could arise from their graves and speak to us, they would not know our language nor would we know theirs. How helpless it is then to convey to people of middle age now the real progress of the last half century.

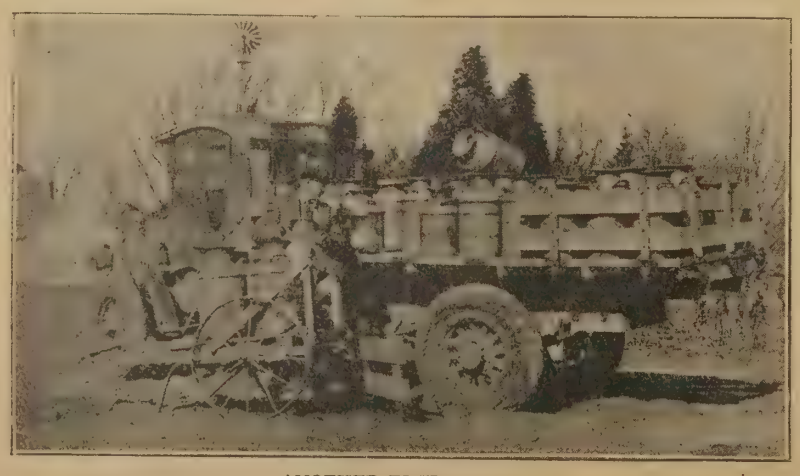
One difference then and now stands clearly out. Most men worked harder then than now and fewer tried to get



HAULING LIVE STOCK BY TRUCK AND TRAILER SAVES BOTH TIME AND MONEY

something for nothing. This was due partly to the fact that pioneers are a picked lot and partly to the fact that nothing was lying around loose those days to be had for the taking. On the principle that no one can get blood out of a turnip, every man those days must needs bestir himself or go without.

There were no blue sky proposi-



ANOTHER TIME SAVER

tions then though their forerunner, the patent right, developed as soon as anybody could give a note that the bank would cash. By which it will be seen that our forebears—or some of them at any rate—possessed the rudi-



EARLIEST TYPE OF REAPER—USED IN THE GOOD OLD DAYS

ments at least of modern speculative enterprise, that is, gullibility.

But for the most part life was an intensely strenuous matter for our fathers a half century ago with no great rewards anywhere in sight. Their utmost ambition was to keep out of the poor house and bye and bye to own a home of their own.

It has often been said that a dollar then was worth several times what it is today. That is both true and not true. A journeyman carpenter's "kit of tools" cost him a hundred then. A good horse cost as much as now and a carriage from $150 and up. The fifty-dollar buggy made in Cincinnati would just about "hold together to drive home".

A suit of tailor clothes made from broadcloth cost forty to fifty dollars. Kerosene was twenty-five cents a gallon and so poor that the lamps soon filled with paraffin. Matches were twenty-five cents a box and calico was as high as forty cents a yard in war times.

The plain, unvarnished fact is that our fathers worked hard and lived simply in a different world than ours. They knew hardship where we have comfort. The most they could do was to "make a living" while we live better, know more, and enjoy more than kings of former generations. Methuselah in a millennium of existence really lived less than the grammar school boy of today.

We do well to set aside one day for national thanksgiving, but as individuals the holiday season is none too long in which to count our present day blessings and give thanks that our lot has been cast in good old America and in modern days.

Everything comes to those who wait except the time they lose.



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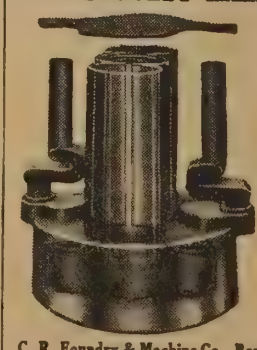
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Bossies Have Xmas Dinner at John Feedwell's

(Continued from page 695)

take the place of good legume hay and inevitably reduces the milk flow and increases the cost of production. They cling to this delusion and are very slow to see that this is the greatest leak in all their dairy feeding. But it is sad to see that *more than half* our dairymen blindly stumble into this ditch, reject the co-operation and high production we gladly offer in good faith and Christmas spirit, and will not take the added millions of income we would make for them. That rejection hurts us most of all, but it cannot continue if we get this Christmas challenge across to those dairymen. *Men* have made slow work of converting their fellows, and now it is up to *us* to do it. We are at the center of the situation, in every section and community, with instant response and proof. We have found our voice and now our greater service is not only to produce milk on what is given us, but everlastingly to press home upon the dairymen the plea and challenge to give us plenty of the right materials from which to make milk—to meet the dairymen more than half way and insist on the chance to make them richer and happier. Are you with me in this campaign to carry the truth to the thousands of Timothy Taken-Ins of this country?"

The answer was in one prolonged and unanimous chorus—"*We are with you.*"

"Pity the poor Timothies in this dark delusion that hangs like a cloud over all dairydom, but we will do more than that, we will pull them out to prosperity if they will give us half a chance." That was the voice of Molly Standby, and it was answered all down the table by "We will!" "We will!" "We will!"

From the foot of the table came this statement: "Just over the fence from us is a herd that gets corn stover and timothy hay. They cram down all they can of that tasteless stuff but they can't eat enough to do good work on."

And it was answered with: "Oh stop, what's the use of talking about corn stover or timothy hay; they are not dairy feeds at all. We never can do creditable work on such feeds. They are simply not in the list for Emancipated Cows of Guaranteed Giving."

But Lady Faithful from "Coming On Farm" insisted: "Well, listen, down on Timothy Moor there are cows that never get a decent meal all winter. They are turned out in the old cornstalk field when it is cold as fury and the stalks are all covered with ice and snow. The owner must think they can give ice cream. Then in the barn he feeds oat straw or millet hay when it isn't timothy or whole corn stover, and sometimes it is spoiled hay, not fit to sell. And they get a few nubbins of corn. When poor old Bossie Bluenose told me about it the other day, she said: 'There are ten of us in the herd, but do our darndest, we can't make no can of milk a day.' The owner of this herd is Steve Starvem, and the herd has been starved from calfhood, and some of the cows never could grow to more than half size."

That brought some heated answers in quick succession:

"Oh, I know him, he's like our Heartless Harry. His heart is sort of dried up like the feeds he gives; he isn't a dairyman; he just keeps his cows as scavengers."

"We've got a fellow out our way that feeds just like that and the neighbors call him Simple Simon."

"But we've got no such easy name for our cow starver; he's just old Devil Dolt, that's all he is."

At this point a cow of large capacity and thoughtful eyes arose and said: "Of course, I do not understand all these technical things about feed, but it seems to me that continued good production, good flesh, and the pink of health such as we have enjoyed here at John Feedwell's for the last six years, since we have been receiving feed such as we had today, is the strongest proof one could ask for, that these feeds are the best, most suitable, and economical for milk production. We have proved them out at the milk scales, and whatever may be lacking in some rations, we certainly receive all that is necessary in ours."

"Well said," spoke up Madam Bountiful. "If it was vitamins we needed, we got them in our feed and put them into the milk for the greater nourishment of the children. If it was protein or calcium or something else we needed—something that it will take the chemists fifty years yet to find—we got it, and got them all in John Feedwell's ration, and we used them in our factory and we turned them out in the purest and most perfect food. The men creatures are dull and slow, but if we can only make them believe and understand us—what we do if not what we say—we would gladly give them a great deal more milk and profit. We have found a voice at last—this Merry Christmas Day and now we must put up a challenge and a contract that no real dairyman can refuse."

After an hour of committee work, the following document was drawn up, read, briefly discussed, adopted, and then signed by every dairy cow present, to go as an offer and challenge to all the dairy farmers of America.

"We Have Not Failed in Giving"

"We have not failed in our giving. All mankind is the better nourished and more efficient because of our products. Thousands who are too feeble or ailing to use other food are put upon a milk diet. Their physicians know the peculiar value of the food we supply. But our greatest attempt has been for the helpless little children, to get them grown to strong and vigorous life. No factory or physician has found the secret of making such dainty, tempting, and completely nourishing food as we provide. But for our milk, thousands of these children would die, and when their unknowing guardians fail to feed them the milk we supply, many, many of them do die and a multitude of others are sick and starved and stunted. We would save the children of the human race. We have done our part and stand ready to do more. No one can charge us with any failure or selfishness in that. Ours is the most noble and basal profession among all food makers. It is the very center of agriculture, the fundamental pursuit of man. We are proud of our place in it and would shirk none of its responsibility."

And This is the Challenge

"We stand ready to do more in advancement in a decade to dispel poverty and bring comfort to man than many a farmer has done for his family in a lifetime of toil. We are created for it, developed for it, and have a special genius for it which enables us to guarantee results. We are of reliable character, and our word would be taken at any bank. It is not a matter of theory but a self-evident fact that may be proven out on any farm at any time. The only possible exception is that of inherent lack of ability. Like men, some of us are "born short", and have a limited capacity for production, regardless of feed. But we are ready to sign an agreement and to forfeit our lives if we do not perform our part in richly rewarding the dairyman. In return, all we ask of him is appreciation and opportunity; the protection of our health, right, and sufficient materials for our work, and the quiet and kindly atmosphere of comfort for concentration upon our task."

"Acre for acre we would not trade"

say these three Montana brothers

"for any land you could buy at triple the price!"



From an actual photograph on the Montana farm of William, Otto and Bruno Hass

In a way, land is much cheaper in Montana today than it was when William and Otto Hass first came there, back in 1907.

For William and Otto homesteaded. That means that they had to break 640 acres of virgin land. They had to dig wells and put up fences.

And if you add to their actual money costs the labor and pioneering and then look up prices on improved Montana farm lands today, you will understand why we say that Montana farm land is cheaper now.

Yet William and Otto and their brother Bruno, who joined them later, are well satisfied with what their work and early hardships have brought them.

They started out with three or four thousand dollars in cash and about a thousand dollars' worth of equipment. Now their farm, well stocked with animals and poultry, covers four and a quarter sections. They have other real estate besides, and money in the bank. Their equipment would be worth about $20,000 new.

And acre for acre, they say, they would not trade their land for land that would cost three times as much outside Montana.

Their experience has proved to them that there are definite reasons why hard work and little capital will produce better results on Montana land.

Yields per acre on Montana lands are high. Montana wheat commands a premium. Its spring wheat shows a far higher percentage grading No. 1 than any other state. Its potatoes, its hay, its oats, its barley, peas, sugar beets, corn and beans are noted for their high quality.

The homesteading period is over in Montana. But land in Montana is cheap, cheaper than it will ever be again. Nowhere, perhaps, in the United States can the man buying farm lands today get a better value for his money than in Montana.

Every farmer in the country, whether he is satisfied with his present farm or not, should know about the opportunities Montana offers now.

He should know that Montana is more than a more profitable place to farm.

He should know about the healthful climate in Montana, where the death rate is the lowest in the United States. He should know about Montana's possibilities for a great industrial future.

The free booklet, "Montana for the Farmer," may open your eyes to a larger chance in life. Why not tear out the coupon below, today, and get this interesting book by return mail?

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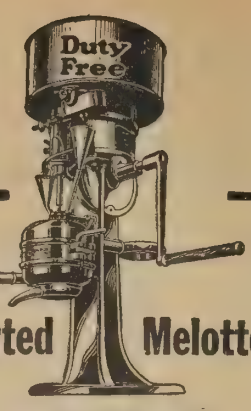


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Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Penn.	Lehigh Co.	Nov.	R. H.	53.6	Saucona F'ms.
Utah	Wells.—College Ward	"	G. H.	61.8	H. Bradshaw
Iowa	Colesburg-Two Co.	"	R. J.	57.2	C. L. Funk
Vt.	Spr.-Chester	"	G. G.	73.5	M. Downing
Ohio	Summit 1	"	H.	105.3	A. M. Allen
Minn.	Northrop	"	R. H.	63.6	R. McLaughlin
Va.	Pr. William	"	G. H.	73.4	C. C. Lynn
Ill.	Frank.-Jeff.-Marion	"	G. H.	75.0	Wardland D'y.
"	Zion	"	R. B. S.	87.2	Hawthorne Farm
Mich.	Alp.-W.	"	R. H.	105.1	J. C. Buth
"	Livingston 2	"		61.9	M. McClear
"	Montcalm	"	G. H.	58.7	V. Sheldon
"	Berrien-Cass	"	R. H.	59.4	J. Rosa
"	Cole-Union	Oct.	R. J.	48.2	H. Long
Calif.	West Side	"	H.	74.6	Fresno Farms Co.
Wis.	Mt. Hope-Lansing	"	G. G.	53.1	Sisley, Brady, & Stevens
"	Verona	Nov.	G. H.	54.4	R. W. Gust
"	Lakefield	"	R. H.	58.5	F. Armbruster
"	Oneida Co.	"	G. H.	67.5	F. Miles
"	Milton-Edg.	"	G. J.	69.2	C. Crandall
"	Fountain City	"	G. J.	59.6	J. Wolfe
"	Cedarburg-Grafton	"	G. H.	59.4	J. Schneider
"	Sheldon	"	G. G.	50.5	D. Cox
"	Bloomer 1	"	G. H.	65.5	H. Fehr
"	Cornell	"	G. H.	51.0	G. Schield
"	Clinton	"	R. H.	83.5	School for Blind
"	Cen. Monroe	"	G. G.	74.1	J. Muehlenkamp
"	Alma-Coch.	"	G. S.	62.9	H. Koste
"	Tennyson-Dickeyville	"	G. H.	47.1	C. Ihm
"	Denmark	"	G. H.	62.7	H. M. Larson
"	Alto Metomen	"	R. H.	62.6	Wilsie Bros.
"	Spr. Gr.-Wyo.	"	G. H.	79.7	L. Jordon
"	Neillsville 1	"	R. H.	63.6	Imig Bros.
"	Bruce	"	G. H.	54.1	L. Lolan
"	Withee	"	G. G.	52.5	A. Anderson
"	Pew.-Sussex	"	R. H.	88.0	H. Bartlett
"	Elroy	Nov.	R. H.	47.2	J. Farrell
"	West.-Jersey	"	R. J.	54.2	A. Hegge
Utah	Hyr.-Paradise	"	G. H.	80.6	E. Clawson
Vt.	Conn. Valley	Oct.	R. H.	101.5	C. O. Sawyer
"	Randolph	"	G. J.	61..0	W. A. Jones
Colo.	Mesa Co.	Nov.	R. J.	67.5	G. Gimple

Association Notes by Testers

Wellsville—College Ward, Utah: Twenty-eight per cent of the members feed grain. Two members have installed the Standard Star equipment. The condensery paid 44c a lb. for fat last month. Milk retailed for 10c per quart, butter 40c per lb.—R. Hansen.

Colesburg—Two-County, Ia.: One member arranged his separator room of hollow tile, with concrete floor and concrete cooling tank. Another member and his son remodeled their barn, putting in steel stanchions and concrete floors. One member erected another windmill and plans to have water in the barn this winter. Some members are feeding silage and more would be only that their silos are not large enough for their needs. In many cases a small auxiliary silo would overcome the drop in milk and condition at the beginning of winter. Last month the creamery paid 42c a lb. for fat.—G. H. Crawford.

Springfield—Chester, Vt.: The high herd, owned by E. H. Locke, of fifteen registered Jerseys, averaged 41.1 lbs. fat per cow. The Bellows Falls Co-operative Creamery paid 73c per lb. fat in milk and 65c per lb. fat in cream. Milk retailed for 12c per qt., butter 60c per lb. in November.—D. Hubbard.

Northrop, Minn.: Even though the butter market is lower this year, members show that they have faith in dairying by the fact that four members are remodeling and enlarging their barns this fall. One member is installing drinking cups and six dairy cows were purchased in November. The 301 cows tested averaged 629 lbs. milk, 25.2 lbs. fat. Eighty-nine, or 30%, of the cows tested, produced more than one pound of fat per day. The high herd was owned by R. E. McLaughlin, whose 12 pure-bred Holsteins averaged 1,382 lbs. milk, 45.7 lbs. fat. This association has monthly meetings which are well attended by non-members as well as members.—R. E. Jensen.

Prince William Co., Va.: Last month 26 herds containing 545 cows were tested. Of this number, 94 made over 40 lbs. fat and 24 over 50 lbs. fat. The herd of 32 Holsteins owned by A. J. McMichael & Son averaged 935 lbs. milk, 35.9 lbs. fat. Last month the creamery paid 34c per lb. for fat. Milk retailed for 12c per quart, butter 50c per lb.—T. T. Curtis.

Franklin—Jefferson—Marion, Ill.: One herd passed the fourth clean tuberculin test. A few reactors are being found. A few members are starting three-times-a-day milking with satisfactory results. In November market milk sold for $3.00 per cwt. The creamery paid 39c per lb. for fat. Milk retailed for 12½—15c per qt., butter 50c per lb.—G. R. Smith.

Alpine—West Kent, Mich.: One new milk house is being built. All silos were filled in good season. One barn is being remodeled. C. Crawford is the owner of the high herd, which averaged 736 lbs. milk, 39.2 lbs. fat per cow.—P. C. Wittenbach.

Livingston Co., Mich.: During the past summer 608 acres of legumes, or 17% of the total acreage of land, were used for hay and pasture. Two hundred acres of alfalfa show that it is a favorite crop. The high herd owned by Chas. Bullis & Son averaged 1,330.5 lbs. milk, 41.4 lbs. fat. Milk sold for $2.15 per cwt. last month.—H. Sorensen.

Berrien—Cass, Mich.: A monthly circular is being issued. Last month figures were published showing value of a high protein feed fed in connection with home grown grains. This caused ten men to change their rations and are now feeding a 20% where they originally fed a 13% ration. The cows of the men feeding the old way dropped 33%, those of the men feeding the new way held their previous production. Market milk sold for $2.25 per cwt. and retailed for 10—12c per quart last month.—H. H. D. Boas.

Coleman—Union, Mich.: Of the 194 cows tested, 59 dry, 9 cows produced over 40 lbs. fat, 10 over 1,000 lbs. milk and 3 over 1,250 lbs. milk. The average production per cow in the association is 431 lbs. milk, 17.7 lbs. fat in October, as compared with 427 lbs. milk and 17.5 lbs. fat the month previous.—E. G. Witkowsky.

Fountain City, Wis.: Five barns were whitewashed. One member put in drinking cups, another cemented his barn. Last month the creamery paid 41c per lb. for fat.—O. A. Hamser.

Milton—Edgerton, Wis.: One member sold three grade cows and replaced them with two pure-breds with cow testing records. One of the pure-breds made over 50 lbs. fat in November. This dairyman's average for last month was the highest he has ever had in almost two years' membership in this association. Last month market milk sold for $2.40 per cwt. and retailed for 10—12c per qt. The condensery paid 50c per lb. for fat and the creamery 42c.—W. H. Roberts.

Sheldon, Wis.: One milking machine was installed. More members are feeding balanced rations. Most cows are dry, but a large number will be fresh next month. Two tank heaters were installed.—G. E. Ronne.

Central Monroe Co., Wis.: Three separators were repaired. One herd gained 300 lbs. milk in a month by receiving a balanced ration. A carload of oats was purchased by one member. The condensery paid $2.00 per cwt. for milk. The creamery paid 40—45c per lb. for fat. Milk retailed for 8c per qt., butter 51c per lb. last month.—V. Sorenson.

Alma—Cochrane, Wis.: Thirteen members fed according to suggestions. Eighty-five cows were dry and 30 came fresh. Nine separators were found to be doing poor work. Last month the creamery paid 41—44c per lb. for fat.—E. R. Bailey.

Tennyson—Dickeyville, Wis.: Six cows out of 329 tested averaged over 40 lbs. fat. Chas. Ihm had the high herd average of 807 lbs. milk, 29.1 lbs. fat. Four members built bigger barns this year for more dairy cattle. One member tested his herd for tuberculosis and one reactor was found. The cheese factory paid 36—37c per lb. for fat, the creamery 37—38c.—J. Aufdermauer.

Spring Green—Wyoming, Wis.: Six members whitewashed their barns. Three new silos, two wooden and one concrete, were erected, and one barn was remodeled. One herd was put on the accredited herd list. Market milk sold for $1.60 per cwt. in November and retailed at 10c per quart. The creamery paid 47c per lb. for fat and the cheese factory 40c.—V. H. Dani.

Bruce, Wis.: Nearly all members have been feeding some grain, although very little mill stuffs have been purchased. One member built an addition to his barn for housing young stock and another member installed a litter carrier. Last month the creamery paid 40—43c per lb. for fat. Market milk retailed for 11c per qt., butter 40—43c per lb.—C. W. Rye.

West Side, Calif.: The average production of the 603 cows tested in October was 757 lbs. milk, 28.6 lbs. fat. Eighty-six cows produced over 40 lbs. fat. Walter Michel was the owner of the high herd, which averaged 1180 lbs. milk, 43.3 lbs. fat.—W. L. Gorzeman.

Mesa County, Colo.: Two separators were found to be losing their owners better than $5 a month. One was repaired and the other will be replaced. Cheaper fall feed and more abundant feeding is keeping the production cost low. Market milk sold for $2.90 per cwt. in November and retailed for 12½c per quart, butter 45c per lb.—C. H. Boyd.

Westby—Jersey, Wis.: One member is installing drinking cups. All members have signed the petition to have the herds in Vernon County tested for tuberculosis. All herds are receiving grain. Twenty-four of the 27 members feed silage and mixed hay. Only five members feed alfalfa hay. Hard work to seed more alfalfa is being put forth by the county agent. The high cow for the six months' test has produced 4,485 lbs. milk, 302 lbs. fat; the net profit $82.25.—H. Oehmcke.

A Money Saver

One item that has proven to be a money saver in the Charlevoix, Mich., Association, was the fact that some of the members were not stripping cows after the milking machine. In one large herd the amount of milk and fat not milked out by the milkers was sufficient to go a long way toward the purchase of a milking machine. This act on the part of the tester demonstrated that it always pays to follow the "milker" and strip the cows clean.

Several separators were found to be skimming poorly. With one exception, each member has a silo. Every member is using a pure-bred sire.

Seven herds averaged better than 300 lbs. butterfat production per cow. Five of the seven are Holstein herds, one a Jersey, and one a Guernsey. Art Shepard's Holstein herd was high in both fat and milk production. This herd averaged 433.9 lbs. fat and 11,749 lbs. milk.

CLARENCE MULLETT, tester.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Jones Bets One to Two

HOARD'S DAIRYMAN:—It's too bad that the subscription department of Hoard's Dairyman didn't arrange to get a stake holder for the bet that A. W. Jones of Maine offered in support of his views of Mr. Wing's article, "Contentment on the Farm", in the September 19 issue.

Mr. Jones said: "I would put up a year's subscription against two that the flighty Mr. Wing does not make his living by farming but rather makes it by farming the farmer."

Naturally I was very much interested in Mr. Wing's reply in the November 7 issue. He has made a good come-back and apparently does not need any assistance in handling his side of the argument.

If Mr. Jones is a good sport he ought to get out and turn in a couple of subscriptions to Hoard's Dairyman.

I think one of the best things Mr. Wing said in his "Contentment on the Farm" article is this: "Life is not only what we make of it but unfortunately what we think of it. That is why, when our viewpoint becomes deranged, the world which God made in all its beauty, looks all wrong to us."

If the dairy business has treated Mr. Jones so badly as indicated in his brickbat at Mr. Wing, I think he had better get some other work to do.

I am reminded of a story. An old fellow, sitting in a country store one evening, went to sleep. Some of the boys thought to have a little fun with him. They got from the grocer a very bad smelling piece of Limburger cheese and rubbed a little of this on the old man's beard. The flies helped him to wake up. He sniffed the air and looked inquiringly around. Everything looked all right and he went back to sleep but not for long. He roused up again and this time after sniffing the air remarked: "By golly, something smells bad in here." He went outside and the smell went with him. He sniffed the air outside and looked around to see what direction the smell was coming from. He could not locate it. He finally said in disgust: "By golly, the whole world smells bad."

Perhaps I had better say that I think good Limburger cheese is all right, but there are those who let the smell overbalance its splendid qualities.

I just wanted Mr. Wing to know that I think farmers can go through trying conditions as well as anyone else and still be able to see a little of the silver lining.

Missouri. N. H. R.

Tuberculosis

HOARD'S DAIRYMAN:—"Tuberculin tested, accredited herd", may sound good to some, but not here. How long will dairymen tolerate such foolishness when the most enthusiastic advocates of tuberculin testing admit it is not dependable? Easy to get by with a "reactor" on the market or any old way he may choose. Why not quit this spreading disease? Weed out your unhealthy cattle by slaughtering. Locate the tubercular one by a proper test of the voidings and urine, or milk which is the only dependable test; it can't be plunged nor will it injure the cow or help to spread tuberculosis.

I sure can't agree with Mr. Curtis. I would not drink milk nor feed it to my children, if produced by one of those doped cows. I would rather chance an untested cow than one of the doped ones.

No doubt a lot of this "bug-a-boo" of tuberculosis is backed by our oleo "friends" and the veterinary grafter.

A 100% American red blooded dairyman.

Arkansas. G. W. SOUTHWARD.

What's the Use?

HOARD'S DAIRYMAN:—I don't think I will spend any more money on any kind of farm paper as all farm products are not worth anything anyhow. So, what's the use of using the best methods of farming? Not that I think that your paper is no good, not at all.

When a farmer sells he gets $2.00 for a big cow hide and 75c for a calf hide. The other day I bought a pair of baby shoes and had to pay $2 for them. There is not 10c worth of good leather in a little pair of baby shoes.

If hides had to be produced in the cities they would cost $10 per pound, at least; that is, if the union workers had to raise them at 75 to 90 cents per hour.

Butterfat is only 40c per pound. At the price everything costs when we buy, butterfat should be worth 60c per pound.

If a man goes to buy a suit of clothes they cost from $35 to $50 and there are not three pounds of wool in any suit. Yet wool was down to nothing not long ago. It sure costs more and takes longer to raise a cow hide or steer hide than it takes to make a suit of clothes. The farmer needs more equipment to raise cattle than it takes to manufacture suits. It takes 2½ to 3 years to raise a full grown cow or steer.

I think it is high time to put out farm papers to show farmers how to raise less. I hope you people will not feel sore at this letter. It is not your fault at all.

Wisconsin. JOHN BENDEL.

Wants the Truth

HOARD'S DAIRYMAN:—I noticed an article in your O. B. and B. in regard to the railroads being guaranteed six per cent on their investment. I believe you claim they are not. Why you make this claim I do not know. I heard President Coolidge say that the Esch-Cummings law only allowed the railroads to charge enough freight to guarantee a reasonable return on their investment and the courts have decreed that six per cent is a fair and reasonable return. Now tell me how in the name of —— you can pull this around to make it anything but a straight guarantee of six per cent. Give the people the truth and don't try to cover up for the corporations.

Kansas. J. G. WILLARD.

Expression of Gratitude

HOARD'S DAIRYMAN:—Please change the address on my paper. I am over here to take charge of the college herd of dairy cattle. Had it not been for the teachings of Hoard's Dairyman, I probably never would have been able to get a position of this kind. I am certainly grateful to the men who have made it possible for me to do so and especially to the late Governor Hoard, whose editorials used to be such an inspiration to me.

Thanking you for this and all other courtesies shown I am,

South Carolina. S. B. D.





The Job Isn't So Hard in the South

Feeding and caring for stock in the winter isn't such a hard job in the South. Here the winters are short and the weather never gets bitterly cold. There is no tramping to the barns through snow and ice with the thermometer around zero, as in the North. In the Gulf Coast section of the South, snow and ice are seldom seen, so that the work of caring for cattle is not uncomfortable.

Why not look into conditions in the South? Here, you and your family can work and live in comfort. Good lands are still cheap, labor is plentiful, and the cost of living and operating a stock or dairy farm is much lower than in the North and East.

The L & N has no land to sell but, without charge, is telling farmers, stock raisers, and dairymen about the splendid money-making opportunities offered them in the South, where living is more pleasant and farming can be made more profitable. We will be glad to tell you. Write today to

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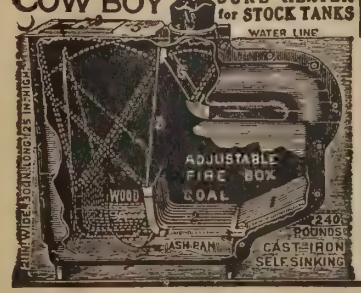
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A Question of Family

J. B. HAYES

IN the present day of anything being possible, of old established ideas being shattered, and wondrous new inventions almost revolutionary in principle being adopted, one is in a more favorable frame of mind to accept the thought of a 300-egg hen. She has ceased to be a seven-day wonder but is not as easily obtained or as widely scattered as we are at times led to believe.

When one visits a present day poultry show and notices the perfection in type, color, and size; the variation in breed characteristics that have been adopted; the fads that have been carried forward until finally fixed and transmitted; and sees the plastic way in which a fowl submits to the whims of man, it can be more easily understood how the present fowl can be accepted as a descendant of the Gallus Bankiva or Jungle Fowl of India. This was a small bird, about the size of a Leghorn, and greatly resembled the present day Single Comb Brown Leghorn.

Through the wonders of the laws of breeding, the recognition of such laws and adapting themselves to such laws, it has been possible to perfect the present hundreds of varieties that we have and to increase production from fifteen or twenty eggs a year to the present 335 official record egg bird.

It was not through hit-or-miss methods that are so commonly followed now with most farm flocks but through diligent study of the individual and a tenacity of purpose that such a thing was possible. In spite of the hue and cry that goes up against the present day fancier because of his attention to fine feathers, without regard to production, he is entitled to a vote of praise for the foundation he has laid and the perfection he has attained. If the modern breeders of production birds are equally successful, the future of poultry breeding is assured.

Basic Laws

Mendel has stated that "like begets like", but a truer interpretation of that is "like tends to beget like". When one mates the Barred Rock male to a Barred Rock female, it is reasonably certain that the progeny will be barred. If one mates two prize winners there is no assurance that the offspring will be as good as either of the parents.

In heredity or the transmission of characters to the offspring, there is no fixed rule. Although Leghorns and Brahmas may be hatched from eggs of equal size, the law of heredity will manifest itself when growth starts by the extreme difference in size.

There is a difference also in egg production, for most hens will produce eggs but there is a great variation in the number. One individual may produce three hundred while another will lay only fifty.

Variation is the law that explains differences. No two will be exactly alike and it is the success of the breeder in fixing these differences either in type, color, or egg production that will determine his future.

White Wyandottes are "sports" from Silver Wyandottes and appear in flocks even at this time. The character was fixed and the present White Wyandotte resulted from the appearance of that "sport".

It is the unusual bird that offers the greatest opportunity. Although the drag of the race will still persist and tends to hold back the progress, the mating of 200-egg males and females will improve the average and lower the number of poor producers.

A pure-bred in poultry is one that conforms to the standard that has been set. If the fowl complies in color, type, comb, and other characters, he is accepted as a pure-bred regardless of what his ancestry may have been.



—Courtesy U. of Wis. Poultry Dept.

M309 LAID 854 EGGS IN 4 YEARS WITH INCOMPLETE RECORD FOR FOURTH YEAR

A broader acceptance of the same law is that a pure-bred is one that transmits the desired characters to his offspring with reasonable certainty. This is the plan on which the dairy business is partially established, in that records are necessary for entrance into the register of merits. A similar plan for cow testing records was established, and the same was possible with poultry.

Prepotency is the final test for the acceptance of a male. This is his ability to stamp the valuable characteristics on his offspring. In a pure-bred male this is possible to a greater degree than with grades. No two will be alike in that respect, but the chances of success are greater than with progeny from chance matings.

In-breeding in poultry differs to some extent from other live stock as only brother-sister matings are avoided. Vigor, the foundation of any successful breeding work, is so rapidly depleted that satisfactory progress cannot be made in that way. The advisable method is the establishment of strains of a sire to daughters and dam to son mating and the introduction of new blood, when needed, from the same strain but a different line.

Breeding Assumptions

At one time the statement that egg production or fecundity was a sex limited character was accepted. In other words, it was thought that a male transmitted this character to his daughters but that a hen could not. Low production was inherited from either parent. More recent work has not proved this statement and one must give proper consideration to both sides of the pedigree for best results. There are certain males that stand out as pre-eminent in their ability to transmit the desired character.

At the University of Wisconsin C2331 was a male in that class. In the first year that he was used 35 of his daughters were selected as a unit for the following year. This entire number finished the first year with an average production of 192 eggs per bird and 17 of the 35 produced over 200 eggs. Breeders of that sort are the kind that are worth any price.

Another example of the worth of this male is M309 illustrated in this article. Her sire was C2426 whose dam was H242 with a two-year record of 464 eggs. Her dam was H323 with a 2-year record of 408 eggs and was in turn sired by C2331.

Another important point for consideration is noted in the record of M309. There is a vast difference in the profit to be derived from a hen that is a consistently profitable producer, and one that is just a seven-day wonder. Even more emphasis should be placed on the second- and third-year records than on the first. The first year tells what a hen may do but the following years demonstrate her breeding value.

If by a system of breeding we can establish a line of fowls like this one whose record of 254 eggs the first year, 220 the second, 212 the third, and a total of 854 eggs for an incomplete four years, the cost of replenishing the flock by young stock would be decidedly lessened. It is not necessary to replace this type of hen with pullets every year. The ability to stick with the job for year after year has not been sufficiently emphasized during the reign of high first year records.

Mass Selection

At about the same time that the question of inheritance of fecundity was under consideration, some work was also in progress along the line of improvement by mass or flock breeding. In this line it was decided that one could not make any progress by this system of breeding.

Investigational work is proposed with the primary idea in mind of ascertaining truth and blasting any preconceived ideas that may be held. As a result of this effort one can feel assured that pen breeding is worth while and that results will be obtained if the work is properly followed. At the same time one must remember that all of the poorer individuals will not be eliminated. Instead of breeding being a levelling process by which all are placed on a par, it is a series of improvements. Some work has proved that when the breeding started with a flock divided into two groups, one of which had a 60-egg average and the other 160, at the end of a stated time the poorest would be up to 160 while the best made 260. The differ-



—Courtesy U. of Wis. Poultry Dept.

RAPID AND SLOW MATURING MALES—HATCHED SAME DATE



QUEEN BESS WITH A RECORD OF 283 EGGS DURING LAYING PERIOD. BRED BY GEO. E. McKAY

nce in possible production still per-isted even though the average of ach had been raised.

Certification

For the average farm poultry keep-r the greatest opportunity is offered y a method similar to what has been ut in practice in some states that is alled certification.

Most of the preliminary work is ac-omplished through the farm record lock work. Interested parties will-ng to co-operate in the work re-uired are obtained through the ounty agent. The flock is reported or daily egg production and feed onsumption each month like a cow esting association or a home egg lay-ng contest.

After one or more years of this reliminary work, when the flock is laced on a businesslike basis and nost of the rough spots are ironed ut, the certification is possible. A ate season cull is made in a very areful manner to select a pen of the very choice females. These hens are anded and allowed to run with the lock until time for mating the fol-owing spring.

A pedigree male from a dam with a record with at least 200 eggs, that conforms to a reasonable degree to standard requirements, is obtained from a reliable breeder. The mating is carried as a special pen from which the breeding stock is selected. These chicks are wing banded or toe punched and are sorted again the following summer. This work is done by some disinterested party who is generally connected with the state, and the males from such matings are available for distribution as breeders in farm flocks and the pullets are used for the laying flock the follow-ing year.

The results of such work are al-most impossible of conception. One can continue to increase the average production each year by such work when the right kind of males are used. The male is more than half of the story.

This system can be put into prac-tice on any farm as the colony brood-er house may be utilized as the pen for them. Even if the eggs from on-ly that pen were saved for hatching one would be that much farther ad-vanced.

Trap Nesting

The limitation to the work at this time is the possibility of obtaining satisfactory pedigree males in suffi-cient number. Trap nesting has been considered a useless expenditure of time and effort without proper finan-cial returns. The present trend of egg records has partially eliminated that thought and has interested a larger number of honest, reliable breeders.

Without the follow up work of pedigree hatching, trap nesting is a waste of time. Culling will allow one to select the best producers but only the trap nest can establish the an-cestry of the stock.

The eggs are hatched in individual muslin bags or wire baskets and the chicks are toe punched or wing banded. By the proper system of rec-ords one can trace the ancestry, records, rate of development, fertili-ty, and hatchability of eggs and any other da-ta that is required.

Egg laying contests are doing a similar line of work but one should consider some of those in the light of a horse race. It is a case of selecting the choice ones, pushing them all the time and using the records for advertising purposes.

Increased egg pro-duction is a question of the right kind of males mated to a few of the very choice females that have been selected because of their pro-ducing ability. A special pen will ac-complish more in one year than a grab bag selection from the entire flock can ever do. Select the best male possible as a foundation and then use his progeny. One breeder who has attained great success has established numerous lines within his own strain and has not introduced any outside blood into his flock in twenty years. This is impossible with the average farm flock but the same line of breeding should be continued as that on which the foundation was built.

A very satisfactory plan to be fol-lowed will mean that one should use pullets only in the laying flock. They are unknown in so far as production is concerned and the selection of them is much more uncertain than with hens that have completed one year. Early hatched, well matured pullets when mated to yearling males will give fertile, hatchable eggs but one is never sure about the produc-tion back of them. If it becomes necessary, this laying flock can be kept confined to the poultry house at all times so that the breeding pen can have free range.

Only hens that have completed at least one year of production should be selected for the special pen. This selection should be based on produc-tion but due consideration should be given to the standard requirements also. Any hen that shows up as a good producer late in the fall should be kept.

Use only pedigree cockerels that are of a medium size for the breed and show the result of a steady growth from the time they are hatched. If this male is of the type that one wants, he should be used for a number of years even if the num-ber of hens mated to him from year to year be decreased.

All of the eggs in this pen should be hatched either under hens or in one section of the incubator so that the chicks can be marked. A ready sale is generally available for males of this kind and all the pullets should be saved for the laying flock.



—Courtesy U. of Wis. Poultry Dept.

266-EGG HEN, FIRST LAYING YEAR

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Paralysis of Old Cows

Whether to retain an old dairy cow is a problem. It is usually advised to retain such a cow when she is pure-bred and a particularly good breeder or producer of high performance stock. In the latter event she will herself be an unusually good milker, persistent in production, and high in butterfat test. Many herds contain such aged cows and they appear to do fairly well and for years escape the paralysis of old age which, however, is always a menace and for which no remedy has been found.

When it comes time to decide whether an old cow should be retired and there is no pedigree or performance record to warrant her retention, we take into account the condition of the teeth, the way in which the cow walks and rises, of course the condition of the teats and udder, the amount of milk she yields, the length of time the yield persists, the percentage of butterfat, and the general thrift of the cow.

When "culling" the herd, into the discard should go every old cow, well over 10 years, that is a "three-teater", an unprofitable producer, or whose milk is abnormally low in fat test, or always bloody after calving, or that has periodic attacks of subacute garget, or that has hard lumps in her udder, or that is hard to milk, a "sprayer", "leaker", "self-sucker", chronic kicker or urinator at milking time, or that has any other bad trait or indication of disease.

As to the old cow that has difficulty in rising when down, that usually is a premonitory symptom of impending senile paralysis. Often such a cow will show a mysterious stiffness or lameness of a hind leg, or of both hind legs. When she gets her feet stuck in the mud she generally falls and has to be helped up. Slipping on a side hill, in the yard, or field also tends to cause falling and the work of two men to get the cow onto her feet, or the stoneboat may even have to be sent to bring her to the barn. Such a cow is a nuisance in a herd. The symptoms of paralysis slowly become worse and at last she goes down and is unable to stand when raised. Slings do not avail. Drugs fail. The cow has to be destroyed.

When the first of these symptoms appears the tuberculin test should at once be applied, as tuberculosis of the segments of the spinal column at the loins or of the joints sometimes is the cause. That disease is incurable and requires disposal of the cow in the manner prescribed by state law. If she does not react and her teeth are in fairly good shape so that she perfectly can masticate feed, it may pay to confine her in a roomy box stall or pen and attempt to put enough meat on her ribs to improve the price that can be got for her from the dealer in such cows. Sold as a "canner", without fitting, the price she will fetch, as every dairyman knows, is negligible. A good dairy cow, however, should have paid at the pail for her keep and given such a profit in addition that she owes her owner nothing when the time comes to let her go. But it does not pay, as a general rule, to retain an ordinary cow that is well up in years and getting stiff in her hind legs and unable to rise normally after lying down. She will, in time, be almost certain to become paralyzed and prove almost a total loss.

Pink Eye—Barrenness

We have a valuable herd of Guernseys which we recently moved to Iowa from So. Dakota. They seem to have contracted the disease on the way as it broke out about one month or six weeks after bringing them here. One male, 6 mos. old, was so nearly blind for a few days that the veterinarian performed an operation on one eye which seems to have been successful. Would you advise operating on the eyes or just what treatment is advisable?

Can you give any suggestions as to how to treat heifers that are unable to breed? We have two valuable registered heifers that were two years old last March but have so far been unable to breed them. The veterinarian has treated them several times for cysts on the ovaries but still of no success.

Iowa City, Ia. (Mrs.) E. G. L.

An operation rarely is needed. Isolate the affected cattle in a darkened stable. Two or three times daily bathe the eyes with a saturated solution of boric acid applied on fresh swabs of absorbent cotton. In the evening put a little of a 1 per cent yellow oxid of mercury ointment in the affected eye or eyes and also apply it freely to the upper eyelid. If there is a heavy discharge from an affected eye wet the eyeball two or three times daily with a 15 per cent solution of argyrol until the discharge abates, then give the treatment prescribed above. Have the veterinarian give special treatment to eyes in an ulcerated condition.

If the heifers do not come in heat after the ovaries have been properly manipulated to rupture cysts or dislodge persistent "yellow bodies", other treatment will not be likely to succeed and they had better be fitted for the butcher. If they come in heat but do not conceive when bred, the neck of the womb or the womb proper is in an infected condition and will require special treatment with antiseptic solutions. The cause of barrenness must be determined and removed. Without a personal examination we are unable to assign the exact cause.

Sulphur for Lice

Kindly advise if feeding of sulphur to dairy cattle is beneficial or not, especially to cattle infected with lice.

We are feeding a mixture of bone meal, phosphate, and ground limestone as the herd has been badly infected with abortion. Is it advisable to continue feeding this mixture?

Hollandale, Wis. I. H.

It is believed by many that sulphur mixed in the feed for farm animals keeps lice away or drives them off when present. To obtain such an effect more sulphur than is good for the animal would have to be fed. It would be better to apply the sulphur to the infected parts of the skin in combination with powdered sabadilla or pyrethrum.

Additional mineral matter need only be supplied when the ration is not rich in such elements. Alfalfa and clover hay, along with silage and mixed meals, usually supply all minerals required. For full particulars of the subject see Bulletin 350 of the Wisconsin Station at Madison.

Abnormal Milk

I have a Jersey heifer, first calf. Three months ago her milk was full of flecks of butter; today no sign of it. Can you tell me what causes this and the remedy? Should the milk be used while this is there?

Hampton, Va. R. H. L.

Simple mammitis or garget sometimes causes such curdling of the milk. It is of a catarrhal nature, the lining membranes of the ducts being affected. In severe mammitis the true gland tissue is infected, pus forms, and the attacked part may harden and lose its milk secreting function. Abnormal milk should not be used. At time of attack, strip the quarter clean every hour or two during the day and in the evening rub in a mixture of 1 part each of turpentine and fluid extract of poke root and 8 parts of unsalted lard or sweet oil.

merican Dairy Federation

The American Dairy Federation is e year old. Its membership con- ts of the various national associa- ns interested in dairying and its rpose is to represent the power and portance of the entire industry. Its st year of operation has been suffi- nt justification for its existence. It s practically the representative aracter of this organization that ade possible the elevation of the iry Division to the importance of a reau in the U. S. Department of riculture.

The first annual meeting of the fed- ation was recently held in Chicago. esident Frank O. Lowden called the eting to order and gave a short re- me of the work accomplished and e purpose of the federation. He phasized the fact that only as the embers of the federation took an ac- ve part in its work could the federa- on succeed and attain the purposes r which organized. Secretary omis reported on the work of the deration in connection with the earings on the proposed changes in e tariff on dairy and allied prod- ts. This investigation has not been mpleted, but considerable evidence d data have been secured. He also scussed legislation now pending in ashington and in which the dairy dustry had some interest.

The ice cream industry brought up e matter of standards for ice cream at for a time indicated a possibili- of dissension, but the matter was nally settled satisfactorily by the deration endorsing a standard of 0% fat for ice cream, with a provi- on that consideration be given to the eight of the product if some prac- cal method could be found.

Dr. McKay briefly discussed butter andards and the recent law in which e standard for butter was set at 80 er cent fat and its enforcement laced with the Bureau of Chemistry. his law covers only interstate ship- ents of butter and does not protect anufacturers of legal butter from e competition within the same state f those who may make butter con- aining less than 80 per cent fat. He lso stated that he believed the U. S. tandard should be in practical ac- ord with the standards of foreign ountries that import large quanti- es of butter, such as England and ermany. Mr. McKay believes the raudulent Butter Act should be so mended as to tax butter containing ess than 80% fat or more than 16% oisture. This law would be enforced y the Bureau of Internal Revenue nd would be effective in controlling he fraud in butter.

A new and, possibly, fraudulent dairy product was reported from the West Coast. It is an 8% cream that as been so treated as to give it the onsistency of 20% cream and which he consumer buys in the belief that t is cream. Further investigation will be made of this product and its elation to the dairy industry. Mr. Barney, of the Holstein-Friesian As- ociation, reported that 21 states ave passed laws covering the frau- ulent advertising of dairy products. This same law will be presented to 16 more states this winter and he asked for the co-operation of the dairy organizations.

The National Dairy Council report- ed briefly as to its activities. Mr. Munn felt that large progress had been made in increasing the con- sumption of dairy products. He cited the experience of Philadelphia as indicative of the possibilities of continued work of this character. In that city the average consumption of butter is 23 lbs. per capita as compared with 17 lbs. for the country as a whole, while the average consumption of oleomargarine is a half pound per capita as compared with two pounds for the United States. The Council is now emphasizing health work in which the importance of dairy products is stressed, rather than merely advertising dairy products alone. He believed that in this way the Council is of largest service to the country as a whole as well as to the dairy industry.

The following officers were elected: President, Frank O. Lowden; vice-president, J. D. Miller; and treasurer, J. A. Walker. The members of the executive board were re-elected. A committee on program of work for the coming year was appointed, with E. M. Bailey as chairman. Other members of the committee are: J. W. Ladd, A. A. Borland, W. A. Wentworth, N. P. Hull, H. C. Larson, R. W. Balderson, and A. J. Glover. This committee is to report its recommendations to the executive committee.

Iowa Ayrshire Returns $185 Profit in One Year

Ames Robin Hood Princess Alpha, one of the good Ayrshires in the Iowa State College herd, recently completed a most creditable record as a senior two-year-old. Her yield of 13,988 lbs. milk, 623.06 lbs. fat places her first in her class in this state. Outside of the fact that she becomes a champion, it is of special interest to know that she produced this amount of milk at a cost of $198.99, producing 100 lbs. of milk for 70 cents, which was sold for $2.75, returning a profit of $185.67 for the year.

Her feed for the year consisted of: 227 lbs. cracked corn, 2,232 lbs. bran, 1,014 lbs. oil meal, 1,826 lbs. ground oats, 50 lbs. cottonseed meal, 618 lbs. corn and cob meal, 333 lbs. molasses, 3,620 lbs. silage, 1,926 lbs. alfalfa hay, 1,399 lbs. dried beet pulp, 4,170 lbs. green alfalfa, 144 lbs. cracked soy beans, and 144 days' pasture.—Ayrshire Breeders' Association.

AYRSHIRES

WALLIS FARMS—AYRSHIRES
Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance.
Federal Accredited Herd.
H. M. WALLIS, *Owner* Racine, Wis.

Ready For Service
SONS OF HOWIE'S KING OF HEARTS or CAVALIER'S LORD ROSEBERRY. We are also offering 6 BRED HEIFERS and 10 YOUNG COWS. Write us for prices. Remember our showring success combined with our herd production insures your getting real animals.
ADAM SEITZ & SONS WAUKESHA, WIS.

AYRCROFT FARM
is offering for sale at $125.00 their sr. bull calf that was 1st at seven of the leading fairs of the Central States. Dam gave 64 lbs. butterfat in November in a cow testing association. Herd Federal Accredited.
B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale
Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.
Wm. NISBET & SONS, Richland Center, Wis.

Accredited Ayrshires
Good type and production are found in our herd. A special price on young stock. Write for prices.
W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Ayrshire Offering of World's Champion Breeding
Fully Accredited Herd—Certificate No. 10241
BULL born Nov. 13, 1924. Color, mostly white. A thrifty individual. Guaranteed Sire: Penshurst Rising Star, 20922, A. R. 260, sire of 18 daughters in the A. R. and R. H. with 24 records averaging 10,722 lbs. milk, 557 lbs. butter, 4.15%. Dam: Kate's Trophy, 43875, an ideal cow in every respect, with three official records averaging 14,142 lbs. milk 560 lbs. fat. Also a few COWS and a nice line of HEIFER CALVES.
PRICE: $200.00.
GLEN FOERD FARMS, Torresdale, Pennsylvania

FOR SALE
Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

ACCREDITED AYRSHIRES
POPULAR BREEDING—HIGH PRODUCTION
All cows now making A. R. records. Young stock at reasonable prices including young bull from high testing cow. Herd sire backed by world's record producers.
CLOVER BROOK FARM, BRISTOL, PA.

EDGERSTOUNE FARM AYRSHIRES --- Type + Production
Five daughters of Hobsland Lucky Boy 16482 average 12,988.7 lbs. milk, 522.29 lbs. fat. This farm won in 1923 1-R of H. Silver Medal, 4 advanced Registry Silver Medals and 2 French Cups.
CHOICE YOUNG BULLS FOR SALE
MRS. JOHN G. WINANT, Owner GEORGE A. HILL, Mgr., Princeton, N. J.

J. J. HAUBERT
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FOR SALE — BY MAIL
HAMPSHIRE BOARS, PIGS GILTS
Write for FREE Price List.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

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WALHALLA FARMS
BROWN SWISS HERD
R. R. STATION, BRIER HILL, N. Y.
An infusion of Walhalla blood has proven most advantageous in many herds in this country, Canada, Africa, South America, West Indies and Mexico. Let your next bull carry 100% Walhalla blood. Address
J. FRANK ZOLLER, Schenectady, N. Y.
Care General Electric Co.
Federal Accredited Herd

LEES' HILL FARM
Brown Swiss Herd
MORRISTOWN, N. J.
An infusion of Lee's Hill blood has proven most advantageous in many herds in this country. Buy your bull from a herd in which the germ of improvement is active. Herd accredited.

JERSEYS

For Sale
REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.
My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.
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Sophie's Tormentor JERSEYS
Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

"Just Jerseys"
Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.
The Oaklands, R. 5, Ann Arbor, Mich.

Cedar Crest Farms
For Sale -- TWO REAL BULLS, Raleigh breeding. Ready for light service. Also a few BABY BULLS. Full particulars and pedigrees on request.
J. K. DERING, Owner Lake Villa, Illinois

6 JERSEY BULLS
2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age
and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

For Sale --- JERSEYS
A few heifers and two young bulls, whose sire is sired by Pogis 99th of Hood Farm and whose dam's record is 690 lbs. fat at 3 yrs. and 2 mo. I also have a couple of springers.
ARTHUR D. KELLY, HUDSON, WIS.

Valley Farm
is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.

POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
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FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.



JERSEYS --
Most Profitable Dairy Breed
Write: AMERICAN JERSEY CATTLE CLUB
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The Son of a Silver Medal Bull For Sale
SNOWFLAKE'S TORMENTOR 234788, born Feb. 24, 1924
A fine fellow, tracing to Gold Medal Bull, Sophie 19th's Tormentor, on both sides. Photos, pedigrees and description on request.
Herd Federal Accredited SHERMAN JERSEY FARM, Dept. B, Charles City, Iowa

Jersey Bull Calves
We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

GUERNSEYS

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Hillbrook Farm Guernseys

Herd Sire—LANGWATER HORATIUS, son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested. At 1924 Ohio State Fair we had Jr. champion female and Sr. and grand champion female. At the next show we won 8 out of 9 firsts, 3 championships and 1 grand championship.

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For prices and information, write
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BULLS 6 to 10 Mos. Old

From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.
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Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.

ISLAND FARM, Box A, Floodwood, Minn.

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Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.
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Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write
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We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.
Send for new list.
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100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address
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Hillswold Farm Guernseys

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When writing advertisers please mention Hoard's Dairyman.

CORIUM FARM GUERNSEYS

FOND DU LAC, WISCONSIN

WE OFFER the show bull, CORIUM SNOWDROP'S ERIC, born Oct. 17, 1923, who won the following prizes: First at Grand Forks, No. Dakota; Central States Fair, Aurora, Ill.; Tri-States Fair, Burlington, Iowa; Wisconsin State Fair; Michigan State Fair; New York State Fair; Illinois State Fair. First prize calf herd and first prize produce of dam, Wisconsin State Fair. Write for price list of bulls we have to offer.

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

Serviceable Bull—Grandson of Cherub's Prince



PROUD PETER OF CHIPPEWA was born Oct. 10, '23. He is well grown and a good individual. His sire, Proud Prince of the Prairie, second as a senior yearling at the 1922 National is a son of that great sire Cherub's Prince. His dam is a good producing, growthy, Glenwood cow. This youngster, bred as he is and with his individuality, should sire both type and production for you. He is priced to sell. Write

L. P. MARTINY CHIPPEWA FALLS, WISCONSIN

— Registered — Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

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Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.
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FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to
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Grade Guernseys For Sale

CARLOAD LOTS OF FRESH, YOUNG GUERNSEY COWS AND SPRINGERS of the best type and breeding. T. B. tested. Also heifers of all ages. We are offering you a choice of 200 head right now. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself. Every animal sold, guaranteed to be as represented.
Riverview Farm, Lloyd L. Dewey, Mukwonago, Wis.
(In Waukesha County)

HELENDALE GUERNSEYS

FOR SALE: Several good typy registered females at very moderate prices, also some young bulls.

WM. A. ERBACH, Athens, Wisconsin

Serviceable Guernsey Bulls

We have 35 serviceable bulls for sale here now at very reasonable prices. We are also offering several carload of good grade cows and heifers and can supply pure-bred females in carload lots.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec., Fort Atkinson, Wis.

2 SONS OF LADYSMITH CHERUB

The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.
SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.



LANGWATER QUEENLY A. R.

Do You Want the Best When You Buy a Herd Sire?

We are sure you do and that you will be interested in the son of Langwater Queenly we are now offering. "Queenly" produced 675 lbs. fat in Class E and 757 lbs. fat in Class A from 16,552 lbs. milk. He is sired by Langwater Star Gazer whose first daughter now on test is going at better than a 600-lb. rate in F. This calf will bring you both type and production and is priced very reasonably at $1000. The herd is accredited.

FLORHAM FARM, R. H. Allen, Mgr., Madison, N. J.

HAYES' CHERUB II and GERAR PEARL

We are line breeding these two great individuals by using our herd sire, Cherub's Dart (out of Pearl's Dot), on our recent purchases at Mr. Stout's and Mr. Marsh's sales.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

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This Blood Sells Fast!

Our bull calves are either sons of Anton's King Confidence or out of his daughters. They sell so rapidly that only in rare instances are we able to keep them until they are old enough for service. If you want a bull possessing this blood to head your herd, buy a calf six months' old, raise it yourself and save money. A. K. C. has gained a reputation for siring mighty good udders along with the other desirable characteristics. A bull of our breeding will make money for you and improve your herd.

Hoard's Dairyman Farm
FORT ATKINSON WISCONSIN



ANTON KING CONFIDENCE 43517

HOLSTEINS

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

OUR HERD SIRE Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

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OFFERS GOOD HOLSTEINS

both pure-breds and grades from clean herds. If you want cows, bulls or calves for calf club work we can supply your order up to several car loads. Our prices are very reasonable.
CARL BRUGGER, Sec., Fond du Lac, Wis.

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BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.

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In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $188 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $85 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Accredited Bulls

FOUR BULLS born Oct. and Nov. 1923 sired by grandson of May Echo Sylvia, whose five nearest records average 34.96 lbs. butter and from official record dams up to 23.46 lbs. butter. Extra good type.

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Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.
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Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
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19 Registered Heifers

7 months to 2 years old for sale. All sired by a 30-lb. bull whose dam was a former Kansas state champion. We are over-stocked and must sell so are offering this exceptional group of sisters at a very low figure. Write
FRED HARVEY DAIRY FARMS.
NEWTON, - - - - KANSAS.

Our New World's Champion



Grahamholm Colantha Segis Maid

She Combines Show Type and Production

GRAHAMHOLM COLANTHA SEGIS MAID has just completed a new world's record for milk and butter production in 305 days of 32,155.1 lbs. milk, 1218 lbs. butter. In 344 days she increased this to 33,811.6 lbs. milk, 1291.6 lbs. butter. Previously, as a 5-year-old, she produced in 1 year, 33,112.3 lbs. milk, 1231 lbs. butter. Twice over 33,000 lbs. milk.

Her Grandsons For Sale

This wonderful cow is by Dutchland Creamelle Colantha Lad. We have used her son on many of our best cows and are now offering some excellent bulls, a few weeks to 7 months old, by him. One of them will suit you. The prices are right.

GRAHAMHOLM FARM, D. G. TWENTYMAN, Mgr.; Rochester, Minn.

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*

Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".

Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.

Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.



Sir Walker Segis Homestead

A. J. LASHBROOK - - - Northfield, Minnesota

A Yearly Record, Serviceable, Ormsby Bull

Born July 30, 1923. A good individual, mostly white in color. A grandson of Sir Pietertje Ormsby Mercedes. His two nearest dams average 995 lbs. butter, 23,000 lbs. milk in 365 days. The price is $175 F. O. B. Northfield.

CARLETON COLLEGE FARMS, Northfield, Minnesota

FEDERAL ACCREDITED HERD

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Write us for information about a son of SIR BESS ORMSBY FOBES, from a good record dam. We have a few by him from daughters of S. P. O. M. 41st.

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offers choice Bred Bulls from good record dams and sired by **KING PEITERTJE MERCEDES ORMSBY**, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

GRANDSONS of SIR P. O. M. 37th

from dams with long time records up to 1024 lbs. butter in year. Federal Accredited Herd. Prices from $75 to $200.

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Registered **COWS, HEIFERS and BULLS.** Very choice Calf Club **CALVES.** State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

1,000 LB. BULL

Born March 26, 1924. A splendid individual. Dam, "Tyranena Cradock De Kol", 1037 lbs. butter, 21,528 lbs. milk. Price $300. If interested write.

KEWAYDIN FARMS

J. A. SCHMIDT & SONS, Ladysmith, Wis.

Federal Accredited Herd

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30 Extra Fancy Grade

HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

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Ormsby-Homestead Bulls

Out of A. R. O. dams and by a son of S. P. O. M. for sale at farmers' prices.

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HEIFERS, COWS, CALVES both sex of good breeding, from 2 mos. old up. Prices within reach.

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A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.

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BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

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Bull Calves For Sale

We have a few male calves from choice dams for sale. They are sired by Meadow Holm Jolie Pontiac Hartog—our 1173-pound yearly record sire. Lots of milk records back of this breeding.

=PRICE $50.00=

SLIVKA BROS. Plainview, Illinois

Oatman Farm Holstein Herd

FEDERAL ACCREDITED

Every cow has an A. R. O. record. World's record and grand champion breeding. Write for bull sale list.

O. A. JENS, Mgr., DUNDEE, ILL.

High Testing Show Bulls

=ALL AGES=

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD Norwalk, Iowa

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

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If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several carloads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

Michigan Holstein-Friesian Association

East Lansing - - Michigan

OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

Serradella Sir Sylvia Mabel

His Dam: Butter 7d 2½y 24.78, milk 552.4, butter 30d 101.4, milk 2200.3. (She won $38.75 Ass'n. prize money on these records). Butter 7d 4y, 27.14, milk, 521.4. Her individuality the best. **His Sire:** Eco-Sylv King Walker, a son of Champion Echo Sylvia Pontiac from 31.58 lb. jr. 3 yr. old. **Himself:** As straight as you would wish and well grown. Born May 10, 1924. You can buy him for **$175.00** on terms to suit. Send for pedigree and pictures.

SERRADELLA FARM, Albert E. Jenkins, Mgr.
A Clean Herd **OSCODA, MICH.**

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3 High Record Bulls FOR SALE!

One out of a 29-lb., 1,108-lb. four-year-old daughter of King Hengerveld Model Fayne, a 30-lb. grandson of King Segis. One out of a 31-lb., 1,185-lb. daughter of Fairview Pontiac Beets Korndyke. Both of these are sired by a 38-lb. son of Judge Segis.

I am also offering a son of Sir Ormsby Pontiac Segis out of a 36-lb. daughter of King Segis Pontiac Superior.

Write today if you are interested in a good bull. I will be pleased to send pedigrees on request.

LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins

Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

A Son of Echo Sylvia King Model

BRED BY TRAVERSE CITY STATE HOSPITAL

Born: February 27, 1924, a well grown, nicely marked calf, 50% white. His seven nearest dams average 31.73 lbs. butter and 605.9 lbs. milk in 7 days.

HIS SIRE: A grandson of May Echo Sylvia from a 36-lb. Jr. 4-yr. daughter of a twice 37-lb. cow. He now has 42 A. R. O. daughters including a 32.3-lb. Jr. 3-yr.-old.

HIS DAM: At 6 years—Butter, 7 days, 30.93 lbs.; milk, 583.7 lbs. Butter, 305 days, 806.18 lbs.; milk, 18,071.1 lbs. Her dam is a 20.8-lb. 4-yr.-old daughter of a 24-lb. cow.

A good bodied calf with straight top line and level rump.

Send for pedigree of Ear Tag No. 543 and list of bulls for sale by

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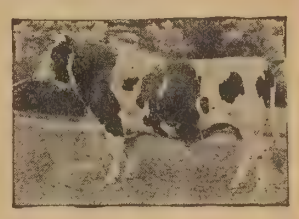
MICHIGAN STATE HERDS

BUREAU OF ANIMAL INDUSTRY,
Department B LANSING, MICHIGAN

Detroit Creamery Co. Holsteins

Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld

THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

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YOU'D never think of giving your wife a Warford Auxiliary Transmission for a Christmas present. There are a thousand and one other things that might please her more—things you may or may not be able to give.

Nevertheless, Warford is making a merry Christmas merrier for those who have cut their hauling costs in two. For Warford Transmissions are buying thousands of Yuletide gifts for the wives and families of owners of Warford equipped Ford Trucks.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOT RY FARMING



Volume LXVIII, No. 24 Fort Atkinson, Wisconsin December 26, 1924

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Skims cleaner than any other separator.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

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Volume LXVIII FORT ATKINSON, WIS., DECEMBER 26, 1924 Number 24

THE SUCCESSFUL DAIRYMAN

E. B. FITTS, PENNSYLVANIA

SUCCESS in life is desired by all. The dairyman in this respect differs little or not at all from those engaged in other enterprises. Profit and pleasure are his goal. His business is the means thereto.

Dairying is an industry that, in most communities, shows all ranges of prosperity, from real success to the most abject failure. The opportunities, however, are the same or similar on most farms in any given community. Probably no business shows so wide a range in efficiency as does dairy farming as conducted by different individuals.

A striking thing about successful dairymen is the fact that they are not grouped in any particular favored community, county, or state, but are scattered far and wide throughout the length and breadth of all sections of our country where dairy farming is practiced. Instances abound where one dairy farm will show all the evidence of prosperity, while on the adjoining farm an opposite condition will prevail. Opportunity would seem to be identical or at least similar on both places. There are the same climatic condition, the soils are not widely different, and the same marketing opportunity exists. A visit to the community creamery, cheese factory, or milk plant will likely reveal the fact that the better dairyman is delivering there daily fifty, seventy-five, or even one hundred per cent more milk than is his neighbor even though the number of cows on both farms may be the same. Here, then, we have a clue to one reason, at least, for the many instances of success found in the midst of failures or partial failures. Success appears to be always closely associated with a high average milk yield per cow.

Opportunity being the same on adjoining farms we must then look to methods for the reason for the higher average milk yield and greater success of one man over that of his neighbor. As we look into his methods we uncover no particular secrets. The law of cause and effect operates here as elsewhere. He gets more milk per cow simply because he has done and is doing the things necessary to get more milk. As a matter of fact, when the business of any dairyman is carefully analyzed it is found that his success is almost exactly in proportion as he observes and practices a very few simple but essential and fundamental rules in its conduct. Dairying is a business as truly as is merchandising, manufacturing, or banking. Success here as everywhere is associated with a practice of good business methods.

What then, we may ask, are the essentials or business methods that are followed by the successful dairyman in the conduct of his business?

These may be grouped:

(1) He provides his cows with an abundance of the right kind of feed.

(2) He has real working ability in his dairy cattle.

(3) He looks carefully after the health and comfort of his herd.

(4) He produces quality products.

Feed being the raw material or source of all milk is first in order. Without the raw material the finished products would be impossible. Feed must be abundant, for milk is made from the surplus or excess feed consumed by the cow above that required for her body maintenance. In other words, the cow makes milk from the last part of her daily feed instead of from the first. She follows the law of self preservation and takes care of herself first, milk production or profits to her owner being a secondary consideration in her round of existence. Liberal feeding is, therefore, a first rule of the successful dairyman. If feed is scarce he knows it is better business to sell one or more animals rather than to skimp the entire herd on feed. Giving each cow all the roughage she will clean up and grain in proportion to milk produced is his practice.

The *kind* of feed is also of prime importance. Milk is constant in composition, varying but slightly from day to day. The successful dairyman carefully balances the ration of his dairy cattle thereby providing each cow with the materials for making milk in the proportions in which she can use them. He knows that when thus fed his cows will not only give more milk for feed consumed but that they will be maintained in a better condition of health. In addition they will live longer and breed more regularly. Feeding unbalanced rations is forcing cattle to eat feed a considerable portion of which they cannot use in the manufacture of milk. This practice is both wasteful and extravagant. The ideal ration has variety and a portion of it is of a succulent nature, the entire combination being palatable and stimulative of appetite. Legume hay with corn silage makes a splendid basis for a dairy cow development and milk producing ration. The successful dairy farmer also follows a crop rotation on his farm that is designed to supply him with the feeds best suited to economical milk production.

The second essential is working ability or efficiency in dairy cattle. The feed is the raw material, the cow the machine or apparatus for converting it into the finished product, milk. Cattle vary widely in their ability to work for their owners. Instances are very common where one cow will produce fifty or even one hundred per cent more milk from a given amount of feed than will another standing beside her and working under identical conditions. There is perhaps a greater variation in efficiency among dairy cattle than is found in any other class of domestic animals. Our successful dairyman checks carefully on the milk producing or working ability of each cow in his herd knowing full well that his own success depends upon individual cow efficiency. This checking he does through a system of record keeping on production taken at regular intervals throughout the year. Often this is done through a cow testing association. Cows not coming up to a certain standard are weeded out and disposed of. Milking ability is an inherited character or permanent part of the cow's make-up. Lacking this ability the cow is always a liability, never an asset, to

(Continued on page 752)



HOMESTEAD AND JERSEY HERD OF W. A. NUTTAL, UTAH

The Ill-Mo Dairy Company

F. E. CHARLES, ILLINOIS

"WHAT is better than bread and butter?" This is the appetizing slogan of the Ill-Mo Dairy Company of East St. Louis, a farmer-owned co-operative creamery and makers of Illini brand butter, a product rapidly growing in popularity among butter consumers in the St. Louis district.

One year ago there was no Ill-Mo Dairy Company. In its stead was a bankrupt milk marketing company, the old Illinois-Missouri Milk Producers' Association.

How the 6,000 farmer-members of the Illinois-Missouri Milk Producers' Association suddenly woke up and found that they owed themselves $130,000 for unpaid milk shipments has been heralded far and wide as an example of farmers' co-ops that have slid into the chasm of bankruptcy and bad repute.

That was back in 1922 when, to the milk producers of the St. Louis district, the future of co-operative marketing looked dark. In the face of their milk co-op failure it seemed that the hopes of co-operative effort were blasted for good.

But the principles of co-operation are bigger than was this milk association. An advisory committee outlined a plan to pay off the debts of the old company and, with legal, financial, and advisory help from the Illinois Agricultural Association, organized the present Ill-Mo Dairy Company to accomplish this. Today the Ill-Mo Company, less than 12 months old, stands, at least in Illinois and Missouri, as a monument to a co-operative marketing spirit that refused to admit defeat.

The new dairy company took over the facilities owned by the old co-op and opened its door to the cream shipping world on January 1, 1924. No cream came that day, nor the next, but on the third day three cans arrived and Ill-Mo creamery business started.

"Maybe you think I wasn't tickled to see that first can of cream," said A. E. Richardson, manager of the Ill-Mo plant, and he laughed as he looked back on the incident. "It was frozen as hard as a brick. There was nothing funny about it then. We'd been running a creamery for two whole days without a pound of cream."



THE CARTON IN WHICH ILLINI BUTTER IS SOLD

January 4 came and with it came more cans of cream, January 5 arrived with a further increase in shipments, and so on, day after day, business picked up, as the confidence of the patrons increased, until in May and June as high as 130 cans arrived each day.

When the cream shipments had reached a satisfactory volume, the Ill-Mo management turned its attention to producing a quality butter product. The plant is equipped with every needed device for modern buttermaking and has turned out on an average for the last five months more than 30,000 pounds of butter each month. The total number of pounds since February 1 is slightly over 250,000.

The problem of marketing 15 tons of butter every 30 days has been no small one for Manager Richardson, in competition with the old commercial creameries. The Illini carton was adopted last spring and by June sales under this brand had reached a total of 11,395 pounds for the month. Since then they have continued to increase, the October sales of Illini totaling more than 15,000 pounds.

The balance of the monthly output has been sold on the open butter market at from 1.9 cents to 3.6 under the price received for that sold under the Illini brand. The Ill-Mo company is now making an active sales campaign to increase the sales of their Illini brand.

"Three-fourths of our Illini brand butter is sold through country stores in the milk district around St. Louis," Richardson said in describing how they market their butter. "Our motto isn't exactly 'ship us your cream and we'll ship you our butter' because our cream comes from beyond the milk territory which extends for about fifty miles in every direction from St. Louis and we sell most of our Illini butter in the milk territory to farmers who market their whole milk and buy our butter. That is the market we cater to.

"One of our men gives all of his time to getting orders in towns in the milk district. We've got a butter wagon now that is always busy handling these orders."

Check-ups of the pounds of cream on hand, the amount churned, amount of butter sold, pounds delivered, and other details are made twice daily, at the beginning of the day and when closing at night.

This practice of rigid economy in recording sales and keeping accounts is one reason why the Ill-Mo Dairy Company is gradually liquidating the debts of the old Illinois-Missouri Milk Producers' Association. In the words of Mr. Richardson, "This creamery business isn't all velvet. You've got to watch the corners." That, in a nutshell, is the key to their success.

For What May the Wisconsin Dairy Industry Pray and Work

AT a recent meeting of a dozen or more of Wisconsin dairy organizations, Hon. J. Q. Emery, Dairy and Food Commissioner of Wisconsin, prepared a paper which mentioned what Wisconsin has done and suggested what she must do in order to develop her dairy industry properly. This advice comes from a man eighty years young, who has been a prominent educator, farmer, and a keen student of the dairy industry since its inception. What he says concerning the essentials necessary to the progress of the dairy industry in Wisconsin is applicable to every state in the Union. Since he did not present this paper to his audience, we take occasion to publish it. It follows:

Speaking of the Wisconsin dairy industry, with its numerous members and groups, I have in mind its likeness to a vast and intricate piece of machinery wherein if even a cog is broken or fails to function, the whole machinery is affected thereby; and I have in mind its likeness to Paul's reference to the body: "The body is one and has many members, and all the members of that one body being many, are one body. The members should have the same care one for another."

The Wisconsin dairy industry as a body having directly an invested capital of approximately $2,000,000,000 and not less than half a million of people, may well be likened to a man in one of Aesop's fables who had two daughters and married one to a gardener, the other to a potter. "After a while, he paid a visit to the gardener and asked his daughter how she was and how it fared with her. 'Excellently well,' said she. 'We have everything that we want; I have but one prayer, that we may have a heavy storm of rain to water our plants.' Off he went to the potter's and asked his other daughter how matters went with her. 'There is ne'er a thing we want,' she replied, 'and I only hope this fine weather and hot sun may continue to bake our tiles.' 'Alack,' said the father, 'If you wish for fine weather and your sister for rain, which am I to pray for?'"

So conflicting are the various urges of different individuals and numerous groups that the dairy industry as a whole may well exclaim, "Which am I to pray for?" Throughout the half century of organized dairying in Wisconsin, it has been a cardinal principle unceasingly and uncompromisingly fought for, that the milk as it comes from the cow, "the foster mother of the human race, that kindly and beneficent animal to which the thoughts of man from the day of the Ancient Hindoo until this time have turned as one of the chief sustaining forces of the human race," should not be tampered with, corrupted, adulterated, or in any way sophisticated. The battle for fifty years has been incessant to preserve the virgin purity of Wisconsin dairy products. The latest outstanding battle was that against filled milk.

Is the problem solvable, without detriment to other equally important branches of the dairy industry, of adjusting the ratio of fat to casein in milk to meet alleged necessities for improving the quality in the manufacture of Swiss cheese?

May we in other fields of dairy activities change the character of dairy products without a corresponding change in the name of the product?

Can the Wisconsin dairy industry ever afford to adopt a mere "put it over" or "get by" policy for mere temporary gain?

Can the Wisconsin dairy industry afford to adopt coercive tactics by individuals or groups instead of the principles of the Golden Rule?

May not the Wisconsin dairy industry not only pray but work for freeing that industry from parasites?

Is the dairy industry to pray and work for successfully meeting threatened competition by increase of quantity at the expense of quality?

May not the Wisconsin dairy industry not only pray but so work that excellence in product, in whatsoever stage, shall receive greater remuneration than does inferiority?

Recalling the many lapses from the superlative to the comparative degree of excellence in conditions and products, recalling the apathy, the complacency, the outstanding defects in relation to the higher interest of the industry as a whole, recalling the recent session of the National Dairy Exposition within our borders and the spirit of boasting it called into exercise over the great dairy Babylon we have builded in this state, may not the industry well pause and in the language of Kipling's Recessional, pray:

"Lord, God of hosts,
Be with us yet,
Lest we forget,
Lest we forget."

And may not the industry well pray and work to be guided by the counsel of that father in one of Aesop's fables, who had a family of sons and when he failed to heal their disputes by his exhortations, determined to give them a practical illustration of the evils of disunion and for this purpose he one day told them to bring him a bundle of sticks. When he had done so, he placed the fagot in the hands of each of them in succession and ordered them to break it in pieces. They all tried with all their strength and were unable to do it. He next unclosed the fagot, and took the sticks separately, one by one, and again put them into their hands, on which they broke them easily. He then addressed them in these words, "My sons, if you are of one mind and unite to assist each other, you will be as this fagot uninjured by all the attempts of your competitors; but if you are divided among yourselves, you will be broken as easily as these sticks."

Genius is talent set on fire by courage. Fidelity is simply daring to be true in small things as well as great. Courage is the standing army of the soul which keeps it from conquest, pillage, and slavery—HENRY VAN DYKE.



PENNSYLVANIA GUERNSEY, ADA'S QUEEN OF DEAN VALLEY, IS WORLD'S CHAMPION IN FARMERS' DIVISION

When the William H. Moon Company, Pennsylvania, bought a herd of Guernseys from C. A. Sherwood of Ohio, they knew they had bought some good purebred cows, but it remained for the Babcock test and the milk scales to tell just how good. One of the cows was Ada's Queen of Dean Valley, a cow that was good enough in the show ring to take second place at the 1922 Ohio State Fair, and first at a number of other fairs—and even then she was shown as a dry cow. She had already made a record of 10,841.4 pounds milk and 551.55 pounds fat as a 3½-year-old, in one year.

After she arrived in her new home in Pennsylvania, she freshened again and again placed on test in the Farmers' Division, in which Guernsey cows are milked only twice daily for a period of 10 months, at the end of which time they must drop a living calf. Her resulting record developed five pounds more of butterfat in ten months than she had formerly made in one year; or, in exact terms, 11,781.3 pounds milk and 556.44 pounds fat.

This record is the highest that has yet been made in the Farmers' Division of the Guernsey Advanced Register, by a margin of eight pounds fat.—The American Guernsey Cattle Club.

THE HUMBLE ORIGIN OF A DAIRY BREED

J. B. BAIN, WASHINGTON, D. C.

THE Ayrshire breed originated in a county in Scotland which as late as the eighteenth century had living conditions the description of which is hardly believable. The roads were hardly passable and the farm houses were hovels plastered with clay and with fireplaces in the middle.

"The dunghill at the door," according to Sturtevant speaking before the New York Agricultural Society in the early seventies, "represented the farm buildings; and the cattle were so starved in winter as to scarcely be able to rise without aid in the spring. Scarcely any crop but oats would follow a scanty crop of oats, unless a fallow year intervened. The small field near the buildings received the manure, and the out-fields were entirely neglected and were without enclosure and were used in common. Famines, as may be expected, were frequent, and we are told of hundreds of families being obliged to flee for subsistence to the north of Ireland; and that in these seasons of misery the poor people were obliged to subsist by bleeding their cattle and mixing the blood so obtained with such scanty oatmeal as they could procure. The markets were poor, the public credit was ill-established, and the manufacturers had scarcely a foothold."

Scotland had been in a state of war so long that fighting appeared to be the national employment. Agriculture was left to the illiterate classes. Digging in the soil was considered to be degrading.

According to Sturtevant there was scarcely a good country road up to the middle of the eighteenth century. The same author states that in 1678 in the same part of the country it took a coach with six horses six days to make the round trip from Edinburgh to Glasgow, a distance of forty-four miles. In fact there were very few good roads even as late as 1793.

The people lived in clay hovels, and oats and barley were the only crops raised. The croft or field near the house received all the manure from the stock. It was hauled to the field on crude sledges or tumbler carts, the wheels of which were attached rigidly to the axle so it turned with the wheels. The farmers were both ignorant and superstitious. The introduction of a winnowing machine was commented upon from the pulpit and it was even called the "De'il's wind".

Before the introduction of the sled, manure was carried to the field in baskets strung across a horse's back. There is a story told of one of these primitive farmers hauling or rather carrying out his manure in this manner. He has a basket full of manure hung on one side of the horse and then to balance it, he had filled the basket on the other side with stones. A neighbor seeing this queer arrangement said to him: "Could not you fill both baskets with dung, which would thus balance one another?" "Na, na," was the reply, "I'll dae naething o' the kin'—my father did it that way, an' my father's father did it, an' my father's father's father did it, an' I'll dae't tae."

The next step forward was the use of a sled drawn by a horse hitched to it by bramble or willow withes used as ropes. The infield also received all the plowing, or "aring" as it was called. Ten oxen were frequently hitched to a sort of plow and when the "gad man" applied his long pole in punching up the oxen the man who held the plow had his hands full. The manure was plowed under and the seed was cast on top to grow, provided it was not choked out. Perhaps this is how the thistle got a start and may be one reason why the thistle was adopted as the flower of Scotland.



AN EARLY AMERICAN IMPORTATION

This reproduction of an old engraving shows the Ayrshire cow, Miss Miller, that was imported by K. K. Peters of Southboro, Mass., at an early date.

The outfields were cropped with oats for several seasons, after which a crop of barley was taken. This was followed by a fallow year, after which oats were sown again. During the spring and summer, when the crops were growing, the cattle were tethered or kept in yards until after the harvest. Then they were turned loose to pick their living until spring. The only food obtainable in the winter was the oat or barley straw around the barren clay fields. For a few days after calving the cows were often fed a mash made of weak corn and chaff. This is how Ayrshire cattle developed that habit which won for them the name of being "good rustlers".

The County of Ayr

The county is divided into the districts of Cunningham on the north, Kyle in the center, and Carrick occupying the southern section. An old saying describes the popularity of each district, as follows: "Carrick for a man; Kyle for a coo; Cunningham for butter and cheese."

A girl, Barbara Gilmore, introduced the art of making cheese into the section. She learned it in Ireland, where she went to escape the religious persecution then common in Scotland. It was found that the milk from Ayrshire cows, assisted by the climatic conditions, made good cheese. So the cheese industry was soon established.

It was in the County of Ayr that Robert Burns, the plowman poet, was born; and in a letter written by him in 1788, he tells about a heifer that had been presented to him by a Mr. Dunlap, and describes her as being the finest quey (heifer) in Ayrshire. Burns kept a herd of Ayrshires on his farm and evidently was as great a lover of a fine cow as he was of the lassies.

The parish of Dunlap was progressive in its agriculture as early as 1700. In 1740 a Mr. Boyd is reported as having purchased a cow for the unprecedented price of two pounds and two shillings (about $10.22), which fact brought people from quite a distance to see the wonderful cow.

About 1730, a large estate owner named Alexander started to improve the community by opening up quarries, laying out roads, and bringing in a successful farmer from another section. This was followed by others taking up the building of roads, including the government, which passed laws in 1750 and 1760 for collecting tolls and making roads. The introduction and planting of cabbages, turnips, and carrots also had a beneficial effect.

Land Improvement

About this time (1760), The Farmers' Society was formed, which, combined with an increased production of crops and better prices, due to the increase in population and manufactures, had a very beneficial effect upon the community. Each farm was divided into at least three parts and a rotation was established which kept the land in sod for three years. Liming was practiced, and the fodder had to be consumed upon the farm and the manure applied to the land. The increased rents drove out the shiftless and replaced them with men of enterprise. However, the practice of sowing grass seed was not introduced until 1792. According to the authority for the latter date, the improvement of land by keeping it in sod must have taken place later than 1760.

Origin of the Breed

A school boy in writing an essay on the origin of the human race said, "Some say that man and woman sprang from the ape. Now maybe they did, but I say that woman jumped the farthest." It is much more difficult to recognize or trace the origin of the Ayrshire breed.

The origin of the breed has been the source of much speculation. The cattle of 1700 undoubtedly originated in the wild white cattle which overran Great Britain. White calves with red ears were born occasionally, thus showing reversion to this stock.

The improvement in the breed was very slow, due to the lack of care and feed. They were described as being puny, unshapely, and small. However the cattle of Dunlap, which is a locality in Cunningham, were noted

(Continued on page 743)



THE FIRST OFFICIAL MILKING CONTEST

In April, 1860, the Duke of Athol offered a prize for the best milking cow, 10 successive milkings. This took place in Ayr, Scotland. The five contenders and their milkers are shown above, the high cow producing an average of over 26 pounds at a milking. The Duke was a half century ahead of his time. His milk-maids weighed and recorded each milking. His cows were kept in clean, well lighted and well ventilated stables. The milkers washed their hands between each milking, and the Duke of Athol might well be called the father of certified milk and an early apostle of economic production. He would rank high today as a progressive dairyman and breeder.

GRADING MILK—WHAT DOES IT MEAN?

ERNEST KELLY, United States Department of Agriculture

"GOOD morning, Mr. Butcher, have you any nice beef today?"

"Why, of course, Mrs. Newlywed. What kind would you like?

"Oh, have you several different kinds? Tell me about them."

"Well, here is a nice porterhouse steak at 65c a pound; here is a roast at 45c; and we have plenty of boiling or stewing beef at 25c."

"Dear me, I had no idea there were so many kinds and such a variety of prices."

"My dear lady, when you take the whole animal, you will find that some of the finest cuts are only a small proportion of the total. The consumer prefers these cuts, so that there is less demand for the remainder, which must be sold at a lower price or else be disposed of as refuse to feed manufacturers or to soap makers. Then, too, some cattle are so bred, fed, and handled that they make better meat. It is all wholesome, but the palate and teeth prefer only the best-flavored and tenderest."

In this imaginary conversation between the butcher and his customer, substitute the thought of milk instead of meat and you will see the principle behind the grading of milk.

In short, milk grading allows the consumer to select the particular kind of milk he wishes to purchase; paying a higher price for especially fine grades and a lower price for grades requiring less care and expense. This does not mean, however, that dirty, unsafe milk may be sold at any price. Even the lowest grade sold should include only milk that is safe for human consumption, and that which contains an adequate supply of food materials.

Advantages of Grading

From the milk producer's standpoint, grading should be extremely beneficial. There are many dairymen of high ideals who spend additional time and money to produce milk of superior quality, while there are others who have interested themselves only to the extent of complying with compulsory requirements. The adoption of rational grading will reward the careful dairyman, while it will raise the standards of the less careful so that they may also benefit. Undoubtedly, some few milk producers will prefer to withdraw from the market rather than observe even the elementary features of grading. These dairymen who quit, rather than take reasonable precautions, will benefit the careful dairymen and the industry as a whole. Their departure will eliminate cheap, careless competition and will serve to raise the quality of dairy products to a higher plane.

Possible Disadvantages of Grading

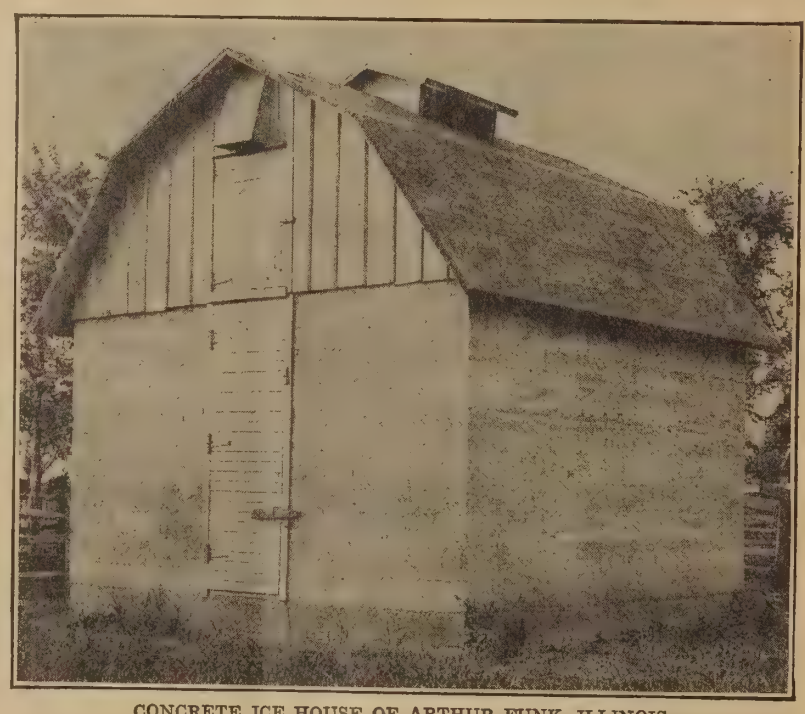
There are three possible disadvantages to grading milk. None of these apply to the actual principle of grading, but to methods of enforcement and results obtained. First, a larger clerical force is necessary to keep the records and arrange the ratings of the dairies. This is especially true where many dairies are on the border line between grades and frequent changes have to be made. Second, grading systems are not always well enforced. This puts the really high-grade man at a disadvantage; and, further, it casts discredit upon the system, because consumers buying a supposedly high-grade milk often find that they are getting very poor quality. It has sometimes been found that some of the Grade B milk in a city was superior to some of the Grade A.

What is Grading?

Perhaps we have wandered around through the woods too long before coming to the subject itself, but sometimes a thorough knowledge of easy paths and possible pitfalls is a good thing to have before we assail the castle itself.

Grading has a very definite meaning, but an exceedingly vague interpretation. Grading milk means to separate the available supply into certain classes, the highest of which is usually a rather small proportion of the product, and is that which has received the greatest sanitary care. Sometimes milk of higher food value is included in this grade, but this is not always the case. The grades gradually decrease in quality until the lowest legal limits are reached.

In the previous paragraph I said that grading has a vague interpretation. By this I mean that it is often based on different factors, and even the same factors may differ in emphasis in different localities. For instance, the following factors, among others, are used in grading: Fat, solids-not-fat, pasteurization, total bacteria, bacteria of the colon type, streptococci, farm conditions, sediments, health of cattle, cleanliness of milk plant, acidity, flavor, and odor, etc. Various combinations of some of these factors, with or without mathematical ratings, are used to determine grades. Also different weights are assigned to similar factors in various places. It is, then, impossible to make a definite statement of what constitutes Grade A or Grade B milk in general. I shall, however, give some illustrations later on in this article.



CONCRETE ICE HOUSE OF ARTHUR FUNK, ILLINOIS

Who Should Enforce Grading?

There has been some discussion as to what agency should operate the grading mechanism. In the case of market milk and market cream it would seem that the Health Department of the city where the product is to be marketed is the party to handle the subject. Health officials are entrusted with the health of the community, and it seems a logical part of their inspection work. Other agencies, however, are vitally interested and there are many advantages in their exercising preliminary grading for their own protection. Farmers' organizations must select certain milks and reject others if they are to be successful. For instance, sour or garlicky milk cannot be mixed with good milk without seriously injuring the quality of the entire product and jeopardizing its marketing at a good price. A number of co-operative associations have already taken a stand for a better grade of products delivered to them. Milk dealers, too, cannot afford to receive low-grade products, and many of them are not only rejecting unsatisfactory milk, but are paying premiums for low bacterial counts, high farm scores, or tuberculin-tested cattle. By doing this they safeguard their own business, and often are able to sell special grades at advanced prices.

It is not usually wise for individuals to grade their milk for sales purposes. While this has been done honestly and successfully in a few cases, the grading should be in the hands of disinterested parties. I remember one instance some years ago where one man was delivering "Special Baby Milk" which had a bacterial count of several million per cubic centimeter and was otherwise not suited to the label used.

Certified Milk

Certified milk is milk produced under the supervision of a medical milk commission appointed by a regularly constituted medical association. The commission is entrusted with making regulations for the production, handling, and delivery of certified milk. It employs veterinarians, physicians, bacteriologists, and chemists to report frequently on the health of cattle and employees, sanitary conditions on the farms, bacterial counts, and chemical analyses of the milk. These commissions are usually affiliated with the Association of American Medical Milk Commissions. This federation has drawn up one hundred or more regulations dealing with certified milk.

The main requirements are as follows:

Tuberculin testing of all cattle.

Sterilization of utensils by steam for at least 20 minutes.

Small-top milking pail.

Bacterial count below 10,000 per c. c.

Temperature of milk between 35 and 45 degrees F. at all times.

Butterfat 4 per cent with a range from 3.5 to 4.5 per cent.

Raw milk unless specially directed.

Specific gravity, 1.029 to 1.034.

Medical examination of all employees.

Freedom from all pathogenic bacteria.

Of course, there are many more regulations, but these are the basic ones.

What is Grade A Milk?

I said earlier that Grade A milk has a definite meaning, but a vague interpretation. For this reason it is impossible to say just what Grade A milk is throughout the country as a whole. In general, it represents the highest quality of milk marketed in any community. As to the regulations governing the production and handling of Grade A milk, they vary over a wide range. A few examples of Grade A standards will show the trend of requirements for this product. Grade A milk sometimes includes certified milk; it may be either raw or pasteurized; or it may be called by a specific term such as "special", "nursery", or a similar distinctive name.

A very short summary of the principal requirements governing Grade A milk in New York City follows. The items given by no means cover the entire regulations, but are chosen to show the fundamental items:

Grade A milk, skimmilk, and cream (Raw).

Tuberculin test at least once a year, and removal of reactors.

Physical examination of cattle.

Cows' udders, teats, and flanks washed before milking.

Proper construction, lighting, and ventilation of stables.

Sterilization of utensils.

Pure water supply.

Properly constructed, lighted, ventilated, and screened milk house.

Milking with clean, dry hands.

Immediate cooling of milk to 50 degrees F., maintained at all times.

Not more than 30,000 bacteria per cubic centimeter when delivered to the consumer or at any time previous.

Cream not more than 150,000 bacteria per c. c.

Delivered to consumer within 36 hours after production.

All delivered in bottles.

Healthy employees.

Bottle caps to be labelled "Grade A (Raw)".

Grade A milk, skimmilk, and cream (Pasteurized).

Physical examination of cows at least once a year.

Stables, utensils, water supply, milk house, and milking practically the same as Grade A (Raw).

Immediate cooling of milk to 50 degrees F. or less; except morning's milk delivered before 8 a. m. to cooling station or pasteurizing plant.

Raw milk to be pasteurized in New York City must contain less than 200,000 bacteria per c. c. before pasteurization.

Raw milk to be pasteurized outside of New York City and shipped into the city, must contain less than 100,000 bacteria per c. c. before pasteurization.

Milk to contain not more than 30,000 bacteria per c. c. on delivery to consumer.

Cream to contain not more than 150,000 bacteria per c. c. when delivered to consumer.

To be delivered to consumer within 36 hours after pasteurization.

Delivery and health of employees same as Grade A (Raw).

Pasteurization means heating to at

least 142 degrees F. for thirty minutes or more.

No lower grade to be received in a Grade A pasteurizing plant.

Bottle caps to be plainly printed "Grade A (Pasteurized)".

Grade B milk, cream, and skimmilk: This comprises the greater bulk of the milk shipped to that city and consumed. It can only be sold in pasteurized form and the requirements as to production and handling are similar to those for Grade A (pasteurized) except as briefly noted below:

Utensils "scalded with boiling water", but facilitates for sterilization are not required.

Immediately cooling of milk to 60 degrees F., except morning's milk delivered to creamery or pasteurizing plant before 9 a m.

Raw milk to be pasteurized in New York City must contain less than 1,500,000 bacteria per c. c. before pasteurization.

Raw milk to be pasteurized outside New York City and shipped into city must contain less than 300,000 bacteria per c. c. before pasteurization.

Milk to contain less than 100,000 bacteria per c. c. on delivery to consumer.

Cream to contain less than 500,000 bacteria per c. c. when delivered to consumer.

Milk to be delivered to consumer within 48 hours after pasteurization and cream within 96 hours.

Milk or cream may be delivered either in bottles or cans.

Bottle caps to be plainly printed "Grade B (Pasteurized)", and all cans so labelled.

Grade C milk, cream, and skimmilk: This can only be sold for cooking and manufacturing purposes. It must be pasteurized and the production requirements are simpler than for the other grades. Provision, however, is made for an annual physical examination of cows, for healthy employees who handle the milk, and the other requirements of the usual state laws covering the production of milk in a cleanly manner. There is no requirement as to bacteria count, except that there shall be an "excessive" number. Milk must be delivered to consumers within 48 hours after pasteurization, and cream within 72 hours. Bottle caps and can labels must be plainly printed "Grade C milk, skimmed milk, or cream (for manufacturing purposes only).

Commission on Milk Standards

The New York Milk Committee, some years ago, appointed a commission on Milk Standards to study the situation and recommend standards for various grades. Although the commission's standards have been changed from time to time, it may be interesting to note the recommendations for Grade A milk, as published in 1921. They are, in brief, as follows:

Grade A, Raw.

Tuberculin testing of cattle.

Medical inspection of employees.

Milk produced under sanitary conditions.

Not over 10,000 bacteria per c. c. when delivered to consumer.

Dairies to score at least 80 in the United States Dairy Division, Bureau of Animal Industry, score card.

Grade A, Pasteurized.

Physical examination of cattle.

Milk produced under sanitary conditions.

Not over 200,000 bacteria per c. c. before pasteurization.

Not over 10,000 bacteria per c. c. at time of delivery to consumer.

Dairies to score at least 65.

Grading by Scoring Milk

Certain cities, counties, and states, especially in the West, are following a system of grading milk by scoring the product on the United States Dairy Division, Bureau of Animal Industry, score card for milk. This score card allows the following credits:

Bacteria	35
Flavor and odor	15
Visible dirt	10
Fat	15
Solids-not-fat	15
Acidity or temperature	5
Bottle and cap	5
Total	100

Regular bacterial and chemical tests are made by the Health Department on the milk supplies during the year. Two or three times a year an expert from the United States Department of Agriculture or a state official judges "surprise" samples, which are obtained without warning from the dealers' wagons. The judges' scores on flavor and odor, visible dirt, and bottle and cap, are combined with the routine chemical and bacterial analyses for the total score of each dairy. After a few preliminary contests results are published, often in groups, such as between 95 and 100, 90 and 95, etc. These contests have aroused great interest on the part of the consumer, and great rivalry between the dealers. The results have been evidenced in the rise in the quality of milk. After each contest the Health Departments receive many phone calls from consumers who want to know how their dealers stand. This has promoted a desirable psychology in both dealer and consumer. It has awakened the dealer to the opportunity of selling high-class milk; and it has educated the consumer to appreciate and demand such an article.

Such contests have been adopted by the California State Department of Agriculture, as the basis of approval of local dairy-inspection offices. The local inspection departments have been approved in 26 cities and 2 counties, covering in all about 50 cities, which consume two-thirds of the market milk in California. During the past year, the average score of this tremendous volume of milk was over 90 out of a possible 100. The encouraging thing for dairymen is that in places having efficient grading there has been a 15 to 30 per cent increase in milk consumption.

Important Factors in Grading

To sum up in a few words, grading should comply with the following standards:

1. It should truly represent differences in quality.
2. The grades should be few and understandable to both producer and consumer.
3. The grades should be adapted to local conditions.
4. The system should be thoroughly and intelligently enforced by some agency having the confidence of producer and consumer.
5. It should offer an incentive, in added trade or better prices, to the producer.
6. It should educate the consumer to appreciate high quality in milk.

Despite some controversy regarding the present status of grading in some localities, there is no doubt that such a system is forging to the front. It has worked with butter and cheese, and it will work with milk, although the grading of milk requires more complicated clerical and laboratory work.

Just as sure as the sun shines, the Grade A dairyman is going to be rewarded by increased markets for his products, and increased respect and recognition from milk consumers.

Holstein Testing by the Bureau of Dairying

The Bureau of Dairying of the United States Department of Agriculture maintains four herds of Holstein cattle in which dairy cattle breeding investigations are being conducted. This project calls for the testing of the heifers and cows in order to determine their producing ability. The general plan is to test each heifer in first lactation period and later as a mature cow. In order to permit of fair comparisons between members of successive generations, every effort is being made to maintain uniform conditions for testing. Cows freshen in average condition and during the test are never milked more than three times daily. Grain feeding is regulated according to production, and beet pulp, when available, is fed with the grain. Alfalfa hay and corn silage are given *ad libitum*.

At the Huntley, Montana, station this procedure is varied somewhat, as the test cows are fed on three plans with respect to grain. One group is fed a liberal ration, approximately all the grain they will eat. A second group received limited ration, and the third group is fed only roughage, consisting of pasture, alfalfa hay, and silage.

During six years at the Beltsville, Md., farm, 33 cows completed 47 records with an average of 17,513 lbs. milk and 595 pounds of butterfat. These records were made by cows in the foundation herd. Table I affords an analysis of these 47 records according to age.

Table I—Records at Beltsville

Class	No. records	Av. milk	Av. fat
		lbs.	lbs.
2 years old	20	15652	532
3 years old	8	17987	649
4 years old	4	17182	557
5 years and over	15	19839	689

Huntley, Montana, station with a smaller pure-bred herd had 19 cows which completed 34 records during 6 years. These 34 records average 14,454 pounds of milk and 503 pounds of butterfat. These figures include those records made on limited grain rations and on roughage alone. Age analysis of the records is given in Table II.

Table II—Records at Huntley

Class	No. records	Av. milk	Av. fat
		lbs.	lbs.
2 years old	5	12847	453
3 years old	5	13753	507
4 years old	9	13461	474
5 years and over	15	15820	536

The station at Ardmore, S. D., has tested 20 cows for a total of 28 records during five years. The 28 records average 13,677 pounds of milk and 453 pounds of fat. This number includes six 305-day records. The age analysis of the 28 records is given in Table III.

Table III—Records at Ardmore

Class	No. records	Av. milk	Av. fat
		lbs.	lbs.
2 years old	14	12192	410
3 years old	4	12433	431
4 years old	1	16135	526
5 years and over	9	16267	521

Ten records have been completed in the most recently established herd at Woodward, Okla. The ten cows tested produced an average of 16,500 pounds of milk and 585 pounds of butterfat. The ten records are summarized by ages in Table IV.

Table IV—Records at Woodward

Class	No. records	Av. milk	Av. fat
		lbs.	lbs.
2 years old	2	14091	524
3 years old	4	15841	547
3 years old	1	19419	761
5 years and over	3	18012	617

No selection is practiced in the testing of these cows, as the aim is to test each animal in the herd once as a heifer and again after the age of 5 years. These records are made under a wide range of climatic conditions, and there have been a number of changes in herdsmen during the period covered by these tests. The primary aim of this testing is to determine the producing capacity of the cows under conditions as nearly uniform and fairly comparable as it is possible to have them. For this reason extremes of feeding and conditioning have been avoided.

To summarize briefly, eighty-two cows and heifers in these four herds during 119 lactation periods of 305 to 365 days have produced 1,362,510 pounds of milk containing 53,647 pounds of butterfat, the average record being 15,161 pounds of milk and 534 pounds of fat, and 77 of the 119 records were made by cows under 5 years of age.



SPARROW HAWK JOHANNA

By producing 1,110.47 pounds fat, equivalent to 1,388.1 pounds butter, in one year from 28,028.9 pounds milk, Sparrow Hawk Johanna, a six-year-old pure-bred Holstein, becomes one of the leading dairy cows of the world. She made her record recently on the farm of Abner S. Deysher, Pennsylvania.

When she freshened last year with twin calves she was started immediately on official test and completed a 30-day test period with a record of 119.76 lbs. fat (149.7 lbs. butter) from 3,132.1 lbs. milk, which is the highest butter record ever made by any cow in Pennsylvania for a one-month period. She was continued on semi-official test and finished the year with the record mentioned and in better condition than she was at the beginning of the test.

Throughout her test period Sparrow Hawk Johanna received a ration made up of home-mixed grains including bran, oats, hominy, gluten, cottonseed meal, brewers grains, oil meal, cocoanut meal, molasses, and beet pulp, with considerable quantities of corn silage and all the alfalfa hay she would consume. She was kept in a well lighted, well ventilated, and roomy box stall and had constant access to fresh water. —Extension Service Holstein-Friesian Ass'n. of America.

It is easy in the world to live after the world's opinion; it is easy in solitude to live after one's own; but the great man is he who in the midst of the crowd keeps with perfect sweetness the independence of solitude.—EMERSON.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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H. L. HOARD, A. R. HOARD, F. W. HOARD
EDITORS
A. J. GLOVER, P. C. BURCHARD

General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
Live Stock Advertising - JOHN G. POYNTON
Junior Editor - - RUSSELL E. FROST

Corresponding Editorial Staff:
PROF. W. A. HENRY - - Wis. Exp. Station
H. B. GURLER - - - - - Mississippi
H. H. LYON - - - - - New York
DR. E. V. MCCOLLUM Johns Hopkins University
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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

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Select Creamery Fieldman

Unit No. 7 of the Wisconsin Co-operative Creameries' Association, which consists of creameries in Jackson and Trempealeau Counties, has selected Martin H. Meyer as its fieldman. Mr. Meyer has had 25 years of experience in the creamery business and for the past few years has been associated with the Chris Hansen's laboratories. Mr. Meyer will begin work on January 1st.—J. S. KLINKA.

We have no more right to consume happiness without producing it, than to consume wealth without producing it.—GEORGE BERNARD SHAW.

Unique Consumers of Milk

HOARD'S DAIRYMAN:—The late Governor Hoard once made this statement: "The dairy cow is the foster mother of the human race." Poets have sung about it in verse and writers have heralded it far and wide until it has become a slogan in Dairyland and even Bossy herself has assumed added dignity because of it.

I peddle milk! Prosaic but true. I try to do more than that. I push it. On my milk route I have attempted to develop every form of milk consumption and even stimulate new avenues. There is only one phase of milk consumption which I have left alone and that is, its adaptability as a beauty culture. My reasons for this attitude should be obvious to every one who has the future of America at heart and who is at all familiar with dairying as a business. Dairy production cannot be increased by leaps and bounds in a day or a week and if the public were informed of the marvelous properties of milk as a beautifier, the milk supply which is primarily for the babies and growing children on whom our future depends, would be utterly demoralized. A milk bath cannot be indulged in on the proverbial quart a day.

In my experience as a milk distributor (it sounds more refined) I have come to the conclusion that Governor Hoard's statement, although true, was somewhat incomplete. Among my clients (you must admit that a milk man has a right to appear professional) is a young couple who are the owners of a very fastidious Boston bull pup. My order at that home was a quart of milk daily and a pint of cream every other day. In talking with the lady one morning I discovered that the quart of milk was for canine consumption while the pint of cream every other day was what the human race of that family were using. It dawned on me right there that the cow was very apparently the foster mother of the canine race.

Suddenly the milk order changed. I was to leave one pint of milk every other day. Like every good milk man I inquired the reason for the change and discovered that Biff had forsaken his puppyhood and became a dog. He had in some way found that there was a great variety of tasty and edible victuals suitable for an aristocratic Boston bull and therefore did as a large number of humans do—placed milk in the condiment class and proceeded to use it accordingly. Unfortunately Biff could not listen to reason so I sought a new outlet.

The wife of a prominent manufacturer called up our dairy and ordered one pint of cream delivered daily at her home. One morning I was talking to her on the porch when a beautiful Persian cat walked out and looked around. It was almost as large as a Shepherd dog and I remarked about what a wonderful specimen she owned. To my surprise I found it to be the sole consumer of my unpasteurized cream. This lady formerly dealt with a large dairy which handled only pasteurized products. While on a visit to the country the Persian prodigy had been served cream (he ignored milk) in its original state and had tasted its original flavor. On her return to the city no amount of coaxing could prevail upon tabby to partake of the pasteurized article. Therefore knowing us to be the only available source of thoroughly dependable raw milk and cream (I neglected to state that we handle only certified milk and cream from our own farm) she enlisted our support in keeping Persia fit. The cow doesn't know what a load she has gradually assumed. The feline race has indeed attached her as a foster mother.

The latest race to claim foster relationship to the cow, to my knowledge at least, is the ophidian. If you are doubtful what this race is it is immaterial. I was, too, until I looked it up in the dictionary. One of our good Guernseys (Bell by name) had dropped twelve pounds daily on her milk and we were in a quandary. There were no young stock running with our milk herd that might take a nip between meals. We knew Bell never helped herself and the mystery remained unsolved for over a week. Finally we became desperate and sent a man over to the pasture with strict orders to keep Bell in sight. He waited and watched until afternoon and was about to give it up as a bad job when Bell started for a clump of bushes. An enormous pine snake glided out of the brush, coiled herself gently around Bell's leg and proceeded to literally fill up. The man reported that by the time this particular ophidian's appetite was satisfied it looked like the old fashioned bolster his grandmother used on her feather bed. When the snake was dispatched Bell's production returned to normalcy and the bovine race one less load to bear.

Wisconsin. JOHN S. RAMSAY.

Co-operative Marketing

It would be worth while if Bulletin No. 211 of the Minnesota Agricultural Experiment Station could be widely distributed and studied both by farmers and every other group of people who have a direct or indirect responsibility in the distribution of farm products.

The purpose of this bulletin is to answer as many as possible of the questions that are constantly being asked concerning co-operation in the central market. Before writing this bulletin, the authors collected all available information concerning the various federated and so-called "commodity" marketing organizations in the United States, corresponded with marketing specialists and others in the various states where these are operating, and interviewed many of the men who have made first-hand studies of them.

One might conclude from discussions of co-operative marketing that all that is necessary in order to attain success is to organize according to the right plan, that all our efforts at co-operation in the past have been more or less futile because our plan has been wrong. Accepting this philosophy, we put on a membership campaign, expecting to work out marketing methods later—satisfied that if only we can get enough of the crop signed up, we can not fail with our marketing—and expecting growers to take it upon faith that we shall be able subsequently to work out successful marketing methods. The over-emphasis previously noted upon membership contracts, liquidated damages, and the like, is but an instance of this.

As a matter of fact, the most enthusiastic and successful membership campaign that was ever made might easily be followed by failure because of lack of grading, a poor pooling plan, or a foolhardy attempt to outguess the market. Such things have happened and will happen again and again in the future.

The real problems of co-operative marketing are the problems of control of quality, pooling, forecasting necessary price, and feeding the market, financing, distribution, and the like.

As one examines the history and records of co-operative central marketing organizations in this country and abroad, one conclusion stands out clearly from the start, namely, that there is no magic formula that insures success on every occasion.

The importance of the foregoing statement can not be exaggerated. Many promoters of marketing organizations have a way of presenting their proposal as the last word in perfection, as if practically certain of success, and almost guaranteed to save farmers from whatever economic plight they may find themselves in at the time. In the almost inevitable reaction that follows, the whole cause of co-operative marketing suffers severely. It would have been much better if their proposals had been fairly presented in the first place, with a full and free discussion of all the problems and difficulties likely to appear, and a fair statement of the extent to which the then prevailing predicament of the farmers was due to faulty marketing; and a conservative estimate of the gains likely to result from the proposed organization.

Count Chickens, Cows, and Pigs

Half a million farmers will be asked to report to the United States Department of Agriculture next month the number of cows and heifers kept for milk this year compared with last, the number of hens and pullets of laying age, and the number of sows farrowed or bred to farrow this fall and next spring. Questionnaires will be distributed by the rural mail carriers.

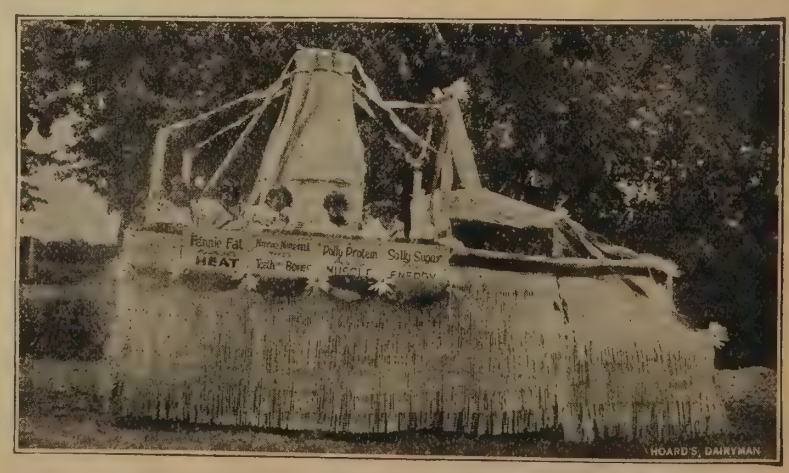
This information is sought to form the basis for forecasting production and market supplies so that farmers may adjust production to demand and market their products in a more orderly fashion. Surveys of this kind were begun by the department two years ago in connection with pigs, and the success of the system has been such that the surveys have been extended to dairy cows and poultry.

Teacher: "Willie, can you tell me how matches are made?"

Willie: "No, ma'am. But I don't blame you for wanting to know."

"Why, what do you mean?"

"Mother says you've been trying to make one for over a year!"—The Progressive Grocer.



DAIRY FLOAT WITH MILK FAIRIES USED IN PARADE ON "DAIRY DAY" BY DAIRY ADVERTISING COMMITTEE OF WINNEBAGO COUNTY, WISCONSIN

The Bureau of Dairying

A. M. LOOMIS, WASHINGTON, D. C.

A DEFINITE and clear cut picture of the work of the Bureau of Dairying of the United States Department of Agriculture is given in the statement which was presented by Dr. C. W. Larson, Chief of the Bureau, to the House of Representatives' Sub-committee on Agricultural Appropriations during its recent hearings on the agricultural appropriation bill. This statement not only shows the lines of work which are being carried on, but also shows the limit to which the Bureau can go as it is at present constituted and financed. A summary of this statement may help to answer the question which is being asked whenever those interested in the dairy industry meet to talk of their representation in the Department of Agriculture, "What is the Bureau of Dairying doing for us?" and to indicate an answer to that other often asked question, "What can the Bureau of Dairying do for us?"

Dr. Larson in this statement divides the work of the Bureau into 27 different items, and shows that there has been no effort made since the work in connection with dairying became a Bureau to expand it, to create new jobs, or to do anything more than to carry on the work already being done, in as much more effective and efficient a way as possible.

The first four of these items deal with the most fundamental of all dairying problems, the efficiency of the dairy cow. The first is cow testing association introduction. There were 240 new cow testing associations formed during the past year. The allotment of funds for this work is $9,628. The second is cow testing investigations, the improvement of methods, comparison between sections, detailed studies of efficiency and effect. The allotment is $6,130. The third is bull association introduction, with an allotment of $12,560, and the fourth is bull association investigations with an allotment of $6,486.

This brief statement with relation to the four items of work which Chief Larson names first, will serve to call attention to two things, first the kind of work which is considered as most important and fundamental—that is, the work which goes to the heart of the problem of each individual cow owner and milk producer; and second, the relative size of the appropriation which is being made for the government's part in work which is thus fundamentally important. For these four pieces of work, which, if they succeed in increasing the efficiency of all the dairy stock in the United States by one per cent, will add to the yearly wealth produced by agriculture by the sum of not less than one and three-quarters million dollars a year, it is found that the total amount of money asked for is but $35,000.

The special problems of western dairying are grouped together in three items under the titles, Western Dairy Farming, Western Market Milk Work, and Western Dairy Manufacturing. To all of these the general results of research and investigation done by the Bureau is brought to help the special problems of the western dairymen. For this work the allotment for the three items is about $35,000.

Creamery and cheese factory investigations, two items which deal with the combination of practical problems plus research work to solve them, and creamery introduction and cheese factory introduction, which does not mean only such work as may be needed toward placing these facilities in new territory, but in placing in established factories the best modern methods for thorough test and try-out, so they may become proper material for the general extension workers, forms another group of four items of incalculable benefit, for which, however, only $48,000 is asked.

Two special inspection services are handled by the Bureau, the inspection of renovated butter factories and the inspection of the navy butter, that is, the butter made under contract each year to supply the annual needs of the fighting men who man the war vessels and auxiliaries of the American fleet. These two services use up $4,300.

There is one basic piece of research which stands out for special mention, the bacteriology and chemistry of milk. This calls for $9,425, and based on this in the main there are some other research items, including condensed and evaporated milk investigations, calling for $18,379; butter and by-products work calling for $29,574 and ice cream investigations calling for $7,210. The comparison between the size of these items and the size and value of the industries is obvious.

Dairy sanitation research occupies a big place in the modern thinking about not only the dairy industry but every other food producing industry, and considering the size and importance of this industry it would not be surprising to find an appropriation for this one topic which is as large as the total for the Bureau. The public, dependent on milk as its chief protective and essential food, would be perfectly willing—it would seem—to see a half million dollars a year spent by some authority to discover the best methods and induce their use, to see to it that every gallon of milk produced reached its destination in the most perfect sanitary condition. The sum actually allotted to this work by the Bureau of Dairying is $22,595. One single item of work, the elimination of unsanitary milk in the supply furnished to the Naval Academy at Annapolis, reducing intestinal disorders among the students there to a degree of almost complete non-existence, is well worth far more than the cost of the entire work.

The milk utilization item calls for $12,806. If this work were for the financial benefit of the dairy industry alone, private agencies might well provide all the money and do all the work, but in view of the almost complete dependence of the whole public for the maintenance of the most adequate health and physical well being requirements on milk and dairy products, and of a permanent American agriculture upon a well maintained cattle industry to maintain soil fertility, then the few thousand dollars used in milk utilization campaigns become only the merest starting point for the work which is to be done for national welfare at this point.

Tied up closely with both the dairy sanitation research and milk utilization, is the item of milk plant management calling for a little over $9,000 and along with this three items the requirements for milk production, the housing and care of dairy cows, and dairy feed production. These three items call for something over $19,000. This work calls into duty the big experimental station at Beltsville, Md., and the experimental dairy farms and herds maintained at Woodward, Okla.; Huntley, Mont.; and elsewhere. A special item of the work is the supervision and maintenance of the Beltsville Station, calling for $79,000.

This accounts for 25 of the 27 items in Dr. Larson's program. The other two are in some ways even more important and far reaching in both scope and future possibilities than all the others put together. One is the study of dairy cattle nutrition, at present centering on a study of the various proteins and their digestion and conversion into milk, and of the mineral content of dairy feeds and their value and place in the digestion of the dairy cow. The other is the big dairy cattle breeding project which has now been going on for some years, centered at Beltsville, but with many experiment stations and colleges and hundreds of individual breeders cooperating. The secrets of breeding to fix and assure high producing capacity is the long range aim of this work. These two take up the remaining allotment of approximately $52,000.

This makes up a total of approximately $400,000, to which is to be added some items for travel, for office administration, and clerical service, making the total for the Bureau as recommended by the appropriations committee about $484,000.

There is no other Bureau of the Department of Agriculture which deals so specifically with a single industry as does the Bureau of Dairying, and so it is not easy to compare the Bureau of Dairying appropriation with others on a fairly equal basis. But without prejudice to the other bureau with which comparison is here made, it might be noted that the budget for the Bureau of Forestry for the year carries a total of $3,325,003, or something like six or seven times as much as to the Dairy Bureau.

It is pertinent to inquire at this point as to just how or why the work of this Bureau stands at this point. The answer is in the fact that up to July 1, 1924, the Bureau of Dairying was only a division in a larger bureau, which was essentially a regulatory bureau with only a small part of its work in research, introduction, and extension in practical agricultural production and wealth producing activities. Along with the division of animal husbandry work with poultry and sheep activities and some other work, the dairy activities were restricted to their own niche in this Bureau. Up to about this time the dairy industry was engaged in emerging from a subsidiary position in American agriculture to a leading position, equalling and exceeding in the last decade all other lines of agriculture in value and importance of its products. So the new Bureau entered the present fiscal year on its old fiscal relationship to other things in the Department, and so little time has since elapsed that the industry and the Bureau and its Chief and other officers have not had time, nor has public sentiment developed, to support or propose lines of increased activity and expansion, if they are necessary.

There is no intent or disposition in evidence to make jobs or to attempt work unless there is clear cut, well defined, and well supported necessity for the work. One reason—the chief one—for writing this little statement, is to call this entire matter to the attention of the whole dairy industry.

Carnation Holstein Makes Exceptional Record



NOOKSACK LUNDE OREGON DE KOL

A YEARLY milk record that has been exceeded by only two other cows in the United States was made recently by a pure-bred Holstein, Nooksack Lunde Oregon De Kol. In the herd of Carnation Milk Farms, at Seattle, this seven-year-old cow produced in 365 consecutive days, 34,510.9 lbs. milk and 1,088.21 lbs. butterfat —equal to 1,360.2 lbs. butter. The only cows that have made greater milk yields in a one-year period are the world's champion, Segis Pietertje Prospect, a barn-mate, and Helm Veeman Woodcrest, of the Helm herd in California.

During the entire test period Nooksack Lunde Oregon De Kol was troubled with an injured foot which handicapped her materially. She also carried a calf 146 days. An exercise lot was available for her constant use and during the summer she was out on pasture more for the exercise she would get there than the grass. In addition to this pasturage, she received every day throughout the year, 70 lbs. red beets, from 18 to 20 lbs. good alfalfa hay, six pounds dried beet pulp soaked with one pound of molasses and water. An average of about 18 lbs. of grain a day was also consumed, made up of a mixture of 400 lbs. bran, 500 lbs. ground oats, 300 lbs. ground hominy, 100 lbs. corn meal, 100 lbs. soy bean meal, and 350 lbs. linseed meal. To 100 lbs. of this grain mixture was added one pound charcoal and one pound salt.—Extension Service, Holstein-Friesian Ass'n. of America.

EDITORIAL COMMENT



How to treat the hired man is not a difficult job. The golden rule will reach it. Elbert Hubbard has phrased it as follows: "They do my work. Therefore I treat them as I would like to be treated. They are I and I am they."

When a man does your work be as patient with him as you would with yourself if you were doing it. Use no harder language to him for his mistakes or shortcomings than you would to yourself when you make mistakes.

It is always the spiteful word that breeds trouble. Actions do not make half the trouble in this world that words do. Kind, patient men make good hired men, if anybody does.

GIVE THE GOOD BULL A CHANCE

Sultana's Virginia Lad was selected as a tried sire to head the Jersey herd at the Missouri Agricultural College after his daughters had proved themselves to be good producers. His entire lot of 20 daughters dropped in the herd averaged 7,339 pounds of milk containing 429 pounds fat (536 pounds butter) as junior two-year-olds. This is an increase of 1911 pounds (35 per cent) in milk and 142 pounds (50 per cent) fat over their dams at the same age.

Considering that the dams of these 20 daughters averaged 287 pounds of fat and that this bull was prepotent enough to cause a 142-pound average increase in the daughters, it is a very worthy achievement for the bull. It is an outstanding illustration of the measure of the value of a good bull. The 142-pound average increase on 20 daughters at 40 cents per pound is $1136.

Now that we are finding out some of the things that cannot be accomplished by political maneuver and that we are finding out that co-operative marketing won't make high producing cows out of scrubs, isn't it a good time to give the good bull a chance?

FARM INCOME MORE THAN MONEY

Farming is a family job. We sometimes forget this when considering the income of the farm. Attempt is often made to classify farming as the same kind of business as running a factory or a store. It is different, for the family plays a direct part in all farm operations. It cannot be separated from the activities of the farm. It is a part of it just as much as the air and sunshine above it. No place in all the world offers such opportunity for development of strong men and women as does the farm. At an early age boys and girls are brought in contact with the best influences. They see nature at her best and are surrounded by an environment which not only tends to good physical development but to the development of keen intelligence.

One of the first jobs on the farm is for the boy to keep the woodbox full of wood and the girl to assist her mother in washing the dishes. When a little older, each may be given some animal, or animals, of the farm to care for. It may be a baby pig or a baby lamb that has lost its mother; or perhaps a few chickens. This character of work teaches responsibility and creates in the breast of these young people a sympathy and understanding that can only be developed by coming in contact with animals that need tender and thoughtful care.

It is to be regretted that so many people fail to comprehend what farm life is, the opportunities it offers besides the dollars and cents income. We must make agriculture profitable so that those engaged in it may enjoy all the necessities and a good share of the luxuries of life. It is a mistake, however, to measure agriculture by its financial income, the same as we do the factories, the mines, and all other industries. Few people take up agriculture with the hope of growing rich. Those who do are doomed to disappointment for agriculture is an industry that is above and beyond just the mere making of dollars and when we measure it entirely from this standpoint it often becomes disappointing. We must measure it by the opportunity that is given for the development of life, of men and women, and only incidentally by its financial return. The true farmer gets more enjoyment out of raising a good crop from his land than he does out of the money he receives for it. The true breeder gets more enjoyment out of the development of a splendid type and highly capable animal than he does out of the money he can sell it for. The true farmer gets more enjoyment out of seeing his boys and girls grow into strong, resourceful men and women than he does out of the whole income of his farm.

In the past few years the farmer's income has not been what it should be. He has been under a tremendous handicap and this condition has led us to brood over financial matters and to forget that after all there has been no depression in the values of the most useful and worth-while things of farm life. There have been, on the whole, no crop failures, no plagues to claim our herds and flocks except in small areas, and the loss of crops and live stock has been infinitesimally small. While we believe we should look upon farming as a business and work to make agriculture profitable, for this is important in the development of this great industry and to those who are engaged in it, we should not let our interest in this destroy what is, after all, the most fundamental—that of building a happy home where our most resourceful as well as our best citizens can be reared.

AN IMPROVED UNDERSTANDING

National farmers' organizations are usually born out of necessity. Farm problems, accumulating gradually as they do, break with a terrific force at the height of this accumulation and out of the confusion comes a national farm organization.

The American Farm Bureau Federation, born as it was at the beginning of the downward crash and without the advantage of long trained and well seasoned leaders in managing the work, was immediately faced with the problem of satisfying nearly three-quarters of a million farmer members and at the same time trying to find out who was best qualified to manage the affairs of the organization, what were the most important farm problems to undertake and how these should be handled.

In addition to this, and at that time, the individual member while knowing that there was something wrong in American agriculture, did not have a clear conception of what could be accomplished by a national farmers' organization and what could not be accomplished through this organized effort.

The first few years have been spent, perhaps too much, in quibbling over selfish personal jealousies as to who should conduct the affairs of the federation. The first few years have been spent in finding out that American agriculture with its accumulation of perplexing problems is a big thing. The first few years have been spent in finding out that accomplishments in a national farmers' organization come only through the honest application of improved knowledge at the right time and in the right place.

We think that the outstanding accomplishment marked by the sixth annual convention of the American Farm Bureau Federation is not measured by comparing the program of work at the beginning of the year with results at the end of the year, however great these are.

We think that this year's convention marks the beginning of the time when men will recognize that satisfactory order cannot be brought out of the difficult situation by dealing in petty personal jealousies as to who is going to be the chief working crew. We think that this convention marks the beginning of a much better understanding on the part of the members, officers, and employes as to just what are the proper functions of a national farmers' organization. We think there is a better understanding as to the distribution of responsibility.

Out of the beginning of this better understanding of problems, of organized effort, of responsibilities, and of things fundamental, the membership and leadership face an opportunity and a corresponding responsibility. They need to more efficiently apply improved knowledge to their problems to the end that American agriculture will be made to go in the direction that it should go and not drift hither and yon as it is inclined to do when not properly directed.

FUTURE LEADERSHIP

Who is going to take up the reins and drive on when dad and mother take their well earned vacation from farm labors? Who is going to lead the nation to prosperity tomorrow? Ah, you know the answer—we don't need to tell you. The boys, of course. And they will be guided and helped by the girls.

More than 700,000 boys and girls in our nation alone are receiving valuable training in 4-H agricultural clubs. Practically every state in the forty-eight is engaged in this great movement fostered by the government and therefore supported and run by the people—you, and you, and you. Realizing that the hope of the future lies in the boys and girls of today, a group of far visioned men from the four corners of this country, representing packers, manufacturers, and other business interests, have allied themselves with club work in a most intimate way. This group is known as the National Boys' and Girls' Club Committee. They selected President Calvin Coolidge as honorary chairman, and adopted a plan of action which forms the connecting link between national, state, and local organizations; and develops and furthers 4-H club work among rural youth.

Said President Coolidge in accepting the honorary chairmanship of the National Committee: "Probably no activity is of more importance to the future standing, prosperity, and social position of agriculture, than the boys' and girls' farm clubs. Their activities warrant the belief that they will greatly aid in the solution of many problems of farm life."

Recently there assembled at the 25th anniversary of the International Live Stock Show some 1,300 club winners from forty-one states in attendance at the third National Club Congress. Cooperating in seeing that the deserving boys and girls got either part or all of their expenses paid were the railroads and many other business and manufacturing interests. It was an impressive sight when this army of "young America" paraded in the arena before the vast crowds of live stock show visitors, flaunting banners and flags accompanied by state songs and yells, then all joining in "America".

These boys and girls had worked hard, learned much, and achieved results—that was why they were rewarded with this trip. They spent the week sight seeing and learning more. The whole country will benefit because each one carried home some message that will prove an inspiration to thousands of others who are plodding along. The sentiment expressed by Keith Grieves, club boy from Michigan, is typical of the leadership qualifications which club work is developing and which the National Club Congress inspires. He said, "I have gained an appreciation for club work such as I have never experienced before. When I get back home I'm going to get more boys and girls to become club members. Next spring I am going to stir up interest in club work in our township by having some outside speakers."

If you want some fascinating reading then write to G. L. Noble, 58 E. Washington St., Chicago, Ill., for the recently published booklet, "Three Million Square Miles of Happiness".

May the good work of training agriculture's future leaders continue and may the influence of 4-H club work spread and the ranks of boy and girl leaders increase. All hail the noble group of national, state, and local leaders of boys' and girls' clubs—and more power to every organization that is helping in this great endeavor!

Sunflower Silage

I am feeding sunflower silage this winter for the first time. Due to weather and harvesting conditions I was not able to get the crop into the silo until most of the heads were in full bloom and the lower leaves were very much dried. My cows are doing fairly well but they do not seem to relish this silage quite as much as they should. Does the stage of maturity have much bearing on the feeding value and palatability of this silage? What is the comparative feeding value of sunflower silage with corn?

Illinois. R. B. W.

The Illinois Agricultural Experiment Station has recently conducted some trials, the purpose of which was to determine the effects on the feeding value and quality of sunflowers when ensiled at different stages of maturity.

In these trials sunflowers were cut 87 days after planting when about 23 per cent of the plants were coming into bloom and when only the leaves on the lower two or three feet of the stalks had died. In the feeding trials this silage was the most palatable and kept the milk flow of the cows nearest to the level of the corn silage ration.

A second cutting was made 106 days after planting when about 95 per cent of the plants were in bloom and when nearly half of the leaves were dead.

A third cutting was made 126 days after planting, at which time the weight of the plants had decreased considerably, due to loss of water. Most of the plants were fully mature and some of the seeds were shelling out. This silage did not keep so well as that of the earlier cuttings. It was less palatable and contained the most crude fiber.

The silage from the first cutting gave the best results chiefly because the cows relished it most and therefore ate more of it and also because it contained less crude fiber and more digestible nutrients.

In no case did any of the sunflower silage equal that of corn silage when fed to dairy cows and as measured by milk production.

The feeding of the sunflower silage did not seem to cause any physical disturbances nor was the composition of the milk affected. Apparently there was no undesirable effect on flavor. Contrary to claims made in reports of sunflower silage trials, silage fed in these experiments proved much less laxative than corn silage and did not cause any increase in urine.

Test Varies at Station and Creamery

For several years past we have experienced considerable trouble in the matter of checking up records and balancing butterfat purchased at receiving stations against our receipts at the creamery. Invariably the test does not come out as it should. We also find that if we make a test in the station and send a set of samples into our creamery, which arrive within twenty-four hours after they are taken, some of them check very closely, others are off a half point, some are off one point, and others are as much as two points. What do you believe is a legitimate variation in test under these conditions?

California. W. C. Co.

Where scales weigh accurately at the cream station and at the central plant, and if the Babcock test is run at the proper speed, there should be no difference in the testing of the samples, providing the samples are properly taken and are stoppered so there is no evaporation. Unless a creamery keeps a close check on the scales used at stations, they are apt to be misled due to the scales not breaking accurately, especially the torsion balance where the knives get a little dull.

Some creameries have no shortage between the station and the main plant in tests. A little shortage may occur due to cream being spilled or some adhering to the cans. In practical creamery operation, among the best large creameries, they consider the creamery should receive from the buying station within ¼ of 1 per cent of the butterfat it pays for at the station. A difference between the creamery and the buying station of not over one-half per cent, or a loss of one-half pound of butterfat to a hundred pounds of fat paid for, is very easily obtained. There should not be more than that difference under fair management. Failure to accomplish these results may be due to inaccurate sampling, weighing, or testing at the station, or, as stated before, inaccuracy of the station scales.

A creamery should check its Babcock test by determining from day to day the fat found in the finished butter, and observing whether or not this fat plus the fat lost in buttermilk equals the pounds of fat shown at the dump room. If samples are left open at the station before being sent to the main plant, there would be some evaporation of moisture from the sample, which would show the station sample to run higher than the average butterfat the cream contained. Samples when taken should be immediately stoppered so as to prevent evaporation.

Illinois. G. L. McKay.

Tank Heater Saves Milk and Corn

Hoard's Dairyman:—For years George Brunson of Osceola County, Iowa, watered his live stock in the good old fashioned way—breaking the ice each morning and evening on his tanks. One winter as he daily watched the shivering stock drinking lightly of the freezing water, he came to the practical conclusion that all this water which the stock was using must ultimately be heated, either before or after drinking. And, he reasoned, to heat it in the animal's body must require a goodly amount of corn and other feeds that should be used in the production of meat and milk. So, for economy's sake, a tank heater was purchased.

His first year's experience proved conclusively that his heater was a paying proposition. He noticed that the cattle no longer shivered and trembled when they drank, that they used more water than before, which was essential for most economical production and gains, and that they seemed to do better, coming through the winter in an improved condition and with much sleeker coats than formerly.

He also noticed that on a couple occasions when the water was not warmed for a day or two that an immediate falling off in the milk flow followed. From that, he naturally concluded that a similar falling off in meat production and body vitality must also occur in beef cattle or hogs when ice water is consumed. As a result, the ax is forever barred from wintering along side his stock tanks. The general understanding on the farm now is that no stock is to be watered during the freezing months until the chill is properly taken off. This practise has even been extended to the buttermilk which the chickens receive.

Mr. Brunson intends to continue this water-heating paying proposition. And, since waste cobs will do the work as well as will valuable corn, he believes that a heater should be put into operation on every stock farm, especially this year when so many will run short of both the higher priced corn and cash. Mr. Brunson has personally become a user of an oil burning heater, a quart of gas operating the outfit steadily without attention all night.

Iowa. C. R. Fritzsche.

Mineral Supplements

I have heard and read considerable lately concerning the need for different minerals in feeding rations. Only last week I was urged to buy a commercially prepared mineral mixture for my hogs and dairy cows. If I knew what mineral substances are most needed by hogs and cows and then knew which farm feeds are high and low in these mineral substances I could do a better job of feeding my stock more efficiently. Could you give me some information on this subject?

Illinois. G. T. W.

The Illinois Experiment Station has done some very good work with mineral substances. The recommendations of this station are as follows:

Although animals need a large number of mineral substances, as may be shown by analyses of their carcasses or of their milk, ordinary farm rations will take care of the requirements for most of these minerals. Mineral supplements, therefore, need only contain a few minerals in which farm feeds are known to be deficient.

The minerals in which farm rations may be deficient, therefore, are calcium, phosphorus, sodium, chlorin, and iodin. There is no evidence that farm rations are ever deficient in any other minerals. Hence, mineral mixtures need not contain any minerals other than these. The need for iodin seems to be restricted to certain localities and to pregnant females, or young growing animals. Its general use in mineral mixtures is neither necessary nor advisable.

Calcium may be provided: (1) in high grade limestone, preferably limestone containing only small amounts of magnesium; (2) in bone meal, or spent bone black, but preferably in steamed bone meal; (3) in wood ashes; (4) in rock phosphate or acid phosphate; and (5) in slaked lime. However, high grade limestone or commercial preparations of calcium carbonate and steamed bone meal may be recommended the most highly as sources of calcium on the basis of the experimental results of Dr. E. B. Forbes obtained at the Ohio Agricultural Experiment Station. Wood ashes are rich in the carbonate and hydroxid of calcium and should serve as an excellent source of this mineral.

Phosphorus may be provided in bone meals or in rock phosphate or acid phosphate; steamed bone meal is to be preferred, however.

Sodium and chlorin are readily and cheaply provided in common salt. Iodin may be provided as potassium or sodium iodid, the latter being the cheaper source.

From what has already been said, it is evident that mineral mixtures for live stock need include only a few substances. They should all contain common salt and a calcium supplement; as a measure of safety some form of calcium phosphate should be used, particularly for dairy cows and for growing animals subsisting mainly on pastures grown on non-fertile soils.

A mixture composed of equal parts of ground limestone and salt, or wood ashes and salt, would supplement calcium deficiencies satisfactorily, but would contain only small amounts of phosphorus.

A mixture composed of equal parts of steamed bone meal and salt would supply both calcium and phosphorus in readily available form.

A mixture composed of equal parts of finely ground limestone (or wood ashes) steamed bone meal, and salt, would supply more calcium than phosphorus. While this is a more logical supplement to farm rations than the simpler mixture of bone meal and salt, it is probably no better in practice, since the excess phosphorus in the latter mixture is not detrimental and can be readily disposed of by the animal body.

If the excessive amount of salt contained in the above mixtures detracts from their palatability, the proportion may be reduced; or, in mineral mixtures for swine, may be replaced by tankage, which ordinarily contains considerable salt. A mixture of 9 parts steamed bone meal and 1 part tankage, or of 45 parts ground limestone, 45 parts steamed bone meal, and 10 parts tankage should prove excellent in swine feeding. If the ration contains linseed oil meal or wheat middlings, feeds rich in phosphorus, a mineral mixture containing 9 parts of finely ground limestone and 1 part tankage can be used with no fear of phosphorus deficiency.

Obviously when rations contain considerable amounts of feeds rich in calcium or phosphorus, the necessity of using mineral supplements is removed entirely or greatly reduced. Leguminous roughages, skimmilk, and tankage are excellent calcium feeds; wheat bran, wheat middlings, red dog flour, rice polish, soy beans, cottonseed meal, linseed oil meal, skimmilk, and tankage are excellent sources of phosphorus.

The need for mineral supplements depends not only upon the ration fed but upon the condition of the animal. Young growing animals, pregnant and lactating females, and laying hens require a greater concentration of minerals in the ration than mature animals not burdened with the extra demands of reproduction or milk secretion.

The following general recommendations, therefore, seem justified:

When swine are not fed liberal amounts of skimmilk, buttermilk, or tankage, or do not have free access to good green pasture (preferably legume pasture), their rations should be supplemented with calcium supplements. Free access to a simple mineral mixture or an addition of two pounds of minerals to 100 pounds of dry concentrates should provide plenty of calcium if the mineral feeds above given are not available.

Growing chicks and laying hens might well be provided with suitable mineral supplements at all times. For growing chicks, coarsely ground bone may be added to the mash in the proportion of 5 to 10 pounds for 100 pounds of mash. For the laying hen, free access to oyster shell at all times is advisable. Dairy products and tankage are reliable sources of minerals for poultry also.

Dairy cows in milk should have their rations carefully balanced with respect to minerals: For example, legume hay for calcium, and wheat bran, wheat middlings, soy beans, linseed oil meal, or cottonseed meal for phosphorus. The value of fresh green pasturage in furnishing a vitamin to aid in the maximum assimilation of calcium should also be mentioned. Under such favorable conditions it is still a question whether calcium supplements are necessary for maximum production. As a measure of safety, the use of calcium supplements to the extent of 3 to 4 per cent of the grain ration, may be justifiable; however, the mineral deficiencies of poor forage cannot be entirely corrected by mineral supplements alone. Free access to salt should, of course, be allowed.

Sixth Annual Convention American Farm Bureau Federation

THERE was nothing spectacular about the sixth annual convention of the American Farm Bureau Federation held at the Congress Hotel, Chicago, on December 8-9-10. The attendance was very close to that of last year. A few came partly out of idle curiosity to be on hand if anything irregular happened. A few came evidently with the purpose of causing some embarrassment to the administration. Most of those who came were there to work—to defend the federation's constitution and policies in so far as they understood these to be the defenders of American agriculture. They sought to gain a broader conception of the complexities of American agriculture in order that the potential energies of the organization might be directed with courage along the right roads of progress.

The American Farm Bureau Federation, born as it was at the beginning of an economic depression, most trying to the American farmer, found itself faced with the task of satisfying its members and at the same time trying to find out who should run the affairs of the organization and how these should be run.

To one familiar with the history of this national farmers' organization it appears that the first few years have been spent too much, perhaps, in finding out that personal jealousies count for little in bringing order out of semi-chaos. It appears that it has taken some time to get a sound, workable knowledge of the problems undertaken. It appears that it has been no little task for the directors, officers, and employees of the federation to get properly hitched up so that all of the power may be applied at the right time and place. These things are, perhaps, peculiar to any new organization that undertakes to do a big piece of work under trying conditions.

While not all of the states are satisfied with the progress and development of the organization, it was shown conclusively at this last annual convention that it will take more than little things to shake the foundation out from under the faith, hope, and enthusiasm of the large majority.

We think the outstanding accomplishments of this year's convention center first around the ability of those present and participating to work in committee sessions in such a way as to prevent inharmonious sentiment from swerving the convention into discord; and, second, the noticeable tendency to a realization that the federation in itself cannot solve all of the agricultural ills that need some attention at this time. In other words, the organization is beginning to find itself. This is an encouraging sign. It marks the beginning of a better understanding of responsibilities between the members, the county, state, and national units. It marks the beginning of the time when the energies of all of these co-operating agencies will be more intelligently directed and applied to the different tasks out of which there will come an improved agriculture.

The importance of the actual work of the convention may be divided into two parts. One has to do with changes in the constitution which we think will without doubt improve the efficiency of the organization. The other part has to do with the adopted program of work for the coming year.

The constitution was amended so that beginning with the annual convention of 1925 the president and vice-president will be elected for two years and the board of directors by a one- and two-year term arrangement will retain each year some of the long term men.

For some time the midwest group of states has contended for a larger representation on the board of directors on the basis of a much larger paid up membership. The constitution was so amended that any group of states having 100,000 paid up members would be allowed one additional director and a second additional director with 200,000 paid up members, but not more than this number of directors.

The constitution was also so amended as to require the full payment of dues by states before voting delegates could be seated in the convention.

It has been the policy of the federation to adopt the annual convention resolutions as the program of work for the following year. The more important projects favored by the federation are: (1) the continued support of co-operative marketing; (2) the careful selection of the best qualified man for secretary of agriculture; (3) net income as the correct measure of the ability to pay taxes; (4)the formation of local and state committees to study taxation problems; (5) the use of the Muscle Shoals facilities for the manufacture of fertilizer under such restrictions as would result in the greatest efficiency in the making and distributing of fertilizer; (6) further protection against the importation and distribution of inferior seeds; (7) improvement in standard containers; (8) truth in fabric legislation; (9) the principle of a farmers' export corporation; (10) the development and improvement of waterway transportation; (11) a strict accounting for and transmissal of county dues through states to federation treasurer; (12) strengthening the publicity department so that it can adequately meet the requirements; (13) the further development of home and community work as rapidly as possible; (14) the endorsement of boys' and girls' club work; (15) the development of electrical power for farm use; (16) enforcement of standards; (17) continued work in the eradication of bovine tuberculosis; (18) commends the International Live Stock Exposition; (19) commends the National Live Stock Producers' Commission Association.

The resolutions oppose: (1) the effort to shift tax burdens to consumption taxes; (2) the delay through appointment of commission on Muscle Shoals project; (3) the placing of additional burdens on parcel post system; (4) the child labor amendment; (5) branch banking; (6) the further issuing of tax free securities unless restricted by classification.

O. E. Bradfute of Ohio was elected president. E. A. O'Neil of Alabama was elected vice-president.

Directors elected are:

Eastern Region—George M. Putnam, New Hampshire; Enos Lee, New York; J. C. Brubaker, Pennsylvania.

Southern Region—E. P. Cohill, Maryland; W. T. Harris, Kentucky; Harry Williams, Texas.

Midwest Region—Chas. E. Hearst, Iowa; J. F. Reed, Minnesota; S. H. Thompson, Illinois; M. L. Noon, Michigan, for a short term.

Western Region—Frank Evans, Utah; A. C. Hardison, California; W. A. Hardy, Nevada.

New Jersey Dairy Building

THE new dairy and animal husbandry building at the New Jersey Agricultural College has been completed and is fitted with extensive laboratory equipment. It has two main floors, a well lighted basement, and space enough on the third, or attic, floor to provide for nutrition and feeds laboratories. The outside dimensions are about 105 by 83 feet. Two groups of offices are located in the front of the first floor. In the center of the main floor is a lecture auditorium which can accommodate large classes. Here farmers' meetings and demonstrations also can be held. The side rooms at the rear of this floor provide for the dairy processing and manufacturing laboratories.

The second floor provides for two large class rooms and a seminar room where seniors in dairy husbandry meet to discuss reviews of research on various subjects pertaining to the dairy industry. Well equipped chemistry and bacteriological laboratories are also situated on this floor, together with an advanced bacteriological laboratory for the use of graduate students. On this same floor are the milk testing rooms.

The well lighted basement provides for a fully equipped meat cutting laboratory, with a meat refrigerator and ice machine. This equipment will be of great value in training animal husbandry students in a practical way. The feeds laboratory on the top floor will also be used by animal husbandry students.

The manufacturing laboratories are fully equipped so that the student can be trained in the fundamental practices of the modern commercial plants. To carry out this plan, these laboratories are connected so that the product can be handled efficiently from the time the raw milk is delivered at the receiving platform in the rear of the building until it is put up in its final package, whether that be a bottle of milk, a pound print of butter, a brick of ice cream, or a carton of fancy cheese. As market milk and ice cream are the outstanding dairy products of New Jersey, their manufacture will be especially stressed.

There is an elementary dairy laboratory containing hand separators, hand churns, and butter equipment so that all students in agriculture can at least be taught the principles underlying the separation of cream and the making of butter on the farm whether or not they wish to take further work in dairy subjects.

With the completion of this building and with the development of new barns and service buildings, the department will be more able to train the students in agriculture, solve the problems of the dairy farmer, and satisfy the demand for trained men in the commercial dairy industry.—J. W. BARTLETT.





NEW DAIRY BUILDING AND NEW BARN AT NEW JERSEY COLLEGE OF AGRICULTURE

Pennsylvania State Dairy Meeting

Eradication of bovine tuberculosis will be the chief theme of the dairy program of the Pennsylvania Breeders' and Dairymen's Association at Harrisburg, Jan. 21, 1925. "Economy in Production the Basis of Successful Dairy Farming" will start off the afternoon program. H. G. Niesley will then discuss "Factors Essential in the Successful Marketing of Dairy Products by the Co-operative Plan". "The Why and How of Clean Milk" will be explained by C. I. Cohee of Philadelphia Dairy Council. Charles Detwiler of the Pittsburg Dairy Council will tell about "Practical Methods for Determining Quality in Milk".

Breeders of dairy cattle will have their annual meetings the same week at Harrisburg.

The Association of Pennsylvania Testers, A. A. Radabugh, Carlisle, president, and C. R. Gearhart, State College, secretary, will hold a general conference and discussion on Tuesday evening, January 20.

Pennsylvania. EDWIN H. ROHRBECK.

Be an undertaker in the sense that you bury the past.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Lyon Replies

HOARD'S DAIRYMAN:—Having just now read the "brickbat" of my friend, Jones, I am wondering what he is getting at. He does seem to make one point, the old one that seems to me to be broken. Jones and I ate together recently and I enjoyed our visit very well. The point he makes is that the League fails to return as much as butter and cheese prices. I still fail to find this true as a general statement. I have also a second letter from another non-pooler, whom I have credited with evident sincerity, in which he undertakes to prove that butter and cheese prices are giving better "results"; he does not claim better prices although his figures come pretty near doing it.

There seems to be no better way of getting at the facts of this controversy over butter values of milk than to go to the dairy department of our state college and obtain their findings. They have found that the most reasonable way of calculating is to start with milk having a fat content of 3.6 per cent, and they allow a sixteen per cent overrun, thus getting 4.176 lbs. of butter from a hundred pounds of milk. They find that it is not reasonable to expect butter to be made and marketed for less than five cents a pound. If then we find butter selling at 38 cents a pound we get from multiplying 4.176 by .33 (.38—.05) a product of $1.38 nearly for 3.6 per cent milk. Subtract 24 cents to bring it down to three per cent milk and we have $1.14 as a result at the basic distance of 200 miles from New York.

My correspondent also suggests that they have in addition the skim-milk at home for use on the farm. This would be a fine thing if the milk were separated at the farm and the same practice continued regularly so that a regular supply of the skim could be depended upon.

I know that the prices quoted are much higher than the $1.14 and it is difficult to understand how it all comes about. We do know that in old times when different creameries and cheese factories were competing with others for patronage that the poundage was reduced on paper. This did no patron an injustice for all were alike but it did sometimes help the reputation of a particular plant and it probably on occasion caused disaster to a neighboring plant. I am not, however, trying to belittle the efforts of our cheese and butter factories in making it possible to market dairy products. Let them prosper.

There is one thing that I hardly understand in the Jones' position and that of the gentleman who wrote me twice recently. Both seem to rejoice over what they regard as evidence that the League is doomed to failure. My understanding in talking with Mr. Garlock of the Eastern States Association is that he would regard such an outcome as very disastrous to the dairy industry. The same idea has been expressed to me by Mr. Monroe of the Onondaga association and many others. A certain milk dealer explained to me recently that most of the locally owned co-operative plants were on the verge of bankruptcy when the League went into operation on its present plan. The League has so stabilized prices that these co-operatives have generally pulled themselves out. In other words, the League has pulled these concerns out of bankruptcy. This same thought might be carried much further.

The question seems to be pressed whether there is not a smaller number of poolers now than at some former date. I do not hesitate to say that I think there is a smaller number, and I would go further and insist that there is less milk pooled than at some other time. One thing seems to have escaped the attention of some and that is that we have more class one milk in the pool than at the earlier date.

There are many problems for the League to work out and until some one has some plan for a different co-operative organization it would seem to be the sensible thing for us to refrain from doing injury even though there may be no more than fifty thousand in the organization and directly affected. Then add the many thousands additional who benefit by it and it seems very unwise to wish it disaster. Those non-poolers will in many cases suffer if disaster comes.

New York. H. H. LYON.

Why Jones Milks Three Times a Day

HOARD'S DAIRYMAN:—Mr. Wing's reply to my criticism of his "Contentment on the Farm" article I did not heed because I felt after reading it that his viewpoint was so far away from mine both in his struggle (?) for a living and his ideas on religion that it would result only in a discussion that would not do either of us any good.

Mr. J. B. Creswell, however, I am not going to let off so easy for his comment sounds to me as if he was one who would sit down and lament over the hard times instead of putting his shoulder to the load and fighting to a finish.

My reason for milking three times a day is because of the same reasons that your article from Cornell, I believe it was, stated: First, it holds up the production very materially; second, it improves the production of the herd in the years to come; third, I had a market that needed the milk and it seemed better business to me to maintain the production equal to my market by milking three times a day than to buy more cows.

In the matter of overproduction I will say this, that while I may by my methods and slavery to the work at hand be increasing the overproduction, I am also reducing very pointedly my cost of production. Whether I am taking it out of my hide or not, the fact remains that I am decreasing my cost of production and that even under the present low prices, etc., I am breaking even. It seems to me quite possible that while J. B. Creswell is resting and recreating, I am milking and making a profit and that later after I have gotten things so that I can rest and still make a profit, Mr. Creswell will still be resting and blaming the rest of us because we are overproducing and at a low cost.

Maine. AUSTIN W. JONES.

Agrees With Jones

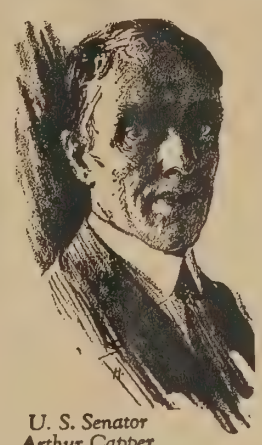
HOARD'S DAIRYMAN:—Have read Mr. Jones' article on page 611 in your November 28th issue with interest. I am one of the same opinion that Mr. Jones has expressed. Will say that it is an experience and motto to those dairymen, who are on the brink of entering co-operation as a means of selling their product, worthy of consideration. We are on the drive for better cows to put into our barns. Let us have better co-operation to reward our toil in betterment of ourselves and the nation.

Ohio. J. J. VINOPAL.

"This is public ownership at its best"



Sec'y of Commerce Herbert Hoover



U. S. Senator Arthur Capper Kansas

Secretary of Commerce Hoover in a talk radiocast to five million people thus defined superpower:

"Superpower means interconnection of (electrical) systems and larger central stations, coal and water, scattered over the whole union .... It implies no gigantic exploitation, for that is impossible under state regulation of rates and profits."

This interconnection "is in daily progress before our eyes."

But it cannot reach its full development or attain the remarkable economies assured by engineers if American initiative and enterprise are hampered by what Secretary Hoover calls "the deadening hand of the government."

"If we have not the capacity as a nation to regulate these great tools in the public interest," it is Secretary Hoover's conviction, "we much less possess the capacity to operate them on behalf of the Federal Government."

Senator Arthur Capper of Kansas in a talk which was also radiocast to five million people, likewise expressed his confidence in these regulated companies. Because of their record he expressed the belief "that the application of power to agriculture for the mutual benefit of the farm, electric light and power industry, and the nation as a whole, is in hands that may be trusted to find a mutually advantageous solution."

And because so many consumers of electricity own securities of the companies Senator Capper said that the electric light and power industry "is becoming in an increasing degree a great community enterprise. This, in my opinion, is public ownership at its best."

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More First Aids to the Purse

I had such a fine letter from Mrs. D. W. Reeves of New York that I asked her permission to pass on some of it to you. It is the experience of a woman who was not afraid of work and who knew how to make it count.

The letter came in response to the query, "Can you help?" which appeared in our issue of October 10.

"I thought I was through doing anything extra," Mrs. Reeves wrote, "but the low price of milk the past three years has put dairymen on the down and out list, so this past season I took lodgers and also ran a little tea room in a tenant house across from our home. This has proved very good but one must be equipped for it and ready to cater to the public at all hours, and give them clean rooms and clean, good food.

"I had a family of eight (including hired men) to do for and if I hired much help I made nothing.

"I have found that the installment plan is the only way poor people can get high-priced articles. I have paid for two pianos, a graphophone, electric washer, and vacuum cleaner, besides all sorts of lessons and extras.

"The first piano I paid for making comforters for fifty cents each. That was forty years ago when I lived near a logging camp. Twenty years later I traded that in and paid the difference in plain sewing and dressmaking but unless I had a child of marked musical ability I would not waste any time or his on lessons in these days of radio and phonograph.

"If I now had children who wanted to take lessons I would let them earn them. A little girl I know does dishes for the music teacher in our village after school and uses her piano to practice on. She gets twenty cents an hour for her work, pays fifty cents for a half-hour lesson, and ten cents a day for the use of the piano one hour.

"There are all sorts of garden stuff that it pays to sell if one lives near a good market or on a main road. One season we sold $125 worth of sweet corn; any boy over fourteen could raise and market it. If it is early you get big prices for it. We also sold apples just at the door; cottage cheese pays well, too.

"I don't think that hard work for the farm woman pays any more unless she has an individual market. We put in a little line of fancy work in our tea room and the cheap things went pretty well but all told it did not amount to much.

"Another thing I have thought of but have never tried, is taking into the home a child or an old person to care for. No matter what one does, it means work and sacrifice and if it requires so much that we have to fail in keeping up our home standards and ideals or in wrecking our health, it isn't worth it. We must look at all these things from every angle.

"Most children work harder for any extra advantage they really want if they have to pay for it and I often think that my children would have gotten for themselves all I struggled to get for them."

Mrs. Reeves has kindly offered to supply any details that are needed by anyone wishing to try the same sort of work she has done.—LUCY THOMPSON.

Oysters for Variety

During the winter months, oysters will again be in season. Perhaps that does not mean much to the farmer folks, because they do not include oysters in their menu very often. A dish that offers so pleasant a variety to the meals and that is so healthful should not be neglected by the farm housewife.

Raw oysters are very digestible and when they are properly cooked they are often recommended as foods for invalids. Just now doctors are recommending them together with shell fish for growing girls who show a tendency toward goiter. It is supposed that oysters, crabs, and lobsters are very rich in the amount of iodine they contain. By including them in the meals of people who seem to be getting goiter, it is believed that they will help to supply the iodine that is needed by the body. Up to the present time the only way known of preventing goiter is by giving medicines or foods that contain iodine in a form that can be made use of by the body.

Oysters are more common than clams or lobsters or any of the other shell fish and are also the cheapest. They are very delicious when only slightly cooked, but when they are cooked long they become hard and tough. The simplest ways of cooking them seem to be the best ways.

Whenever possible, oysters should be bought in the shell because they should not be kept long after they have been taken from the shell. Now shippers have such good containers made for shipping oysters that there is not the danger there once was of not having them fresh, or of having them water soaked from standing too long in direct contact with ice. Containers are now so made that the oysters are on the inside and they are iced from the outside.

Probably the simplest way to cook oysters is to roast them in the shells. To roast them in this way the shells must be scrubbed and put in a pan with the round side down (to hold the juice) and cooked in a hot oven or on top of the stove. When the shells open the oysters are done. Remove the upper shell, season the oyster on the lower shell with salt, pepper, and a little melted butter and serve them while they are still hot. Some people like a little vinegar added to the seasoning.

When it is not practical to serve them on the shell they can be removed from the shell and served with the seasoning from a hot dish. I do not think there is any better way of cooking oysters for in no other way do they seem to have quite the same flavor.

Another simple way to prepare them is to roast them. They are put in a pan without water and set over a hot place on the range, not over a direct flame. They may be kept from burning by stirring them slightly or by shaking the pan. As soon as they begin to heat, the liquor comes from them and they will keep from burning. When the edges curl and ruffle and the oysters look plump instead of flat they are cooked. They are seasoned with butter, salt, and pepper. When served on toast they may be called "fancy roast".

Oysters should not cook more than three to five minutes whether they are being roasted or stewed. Long cooking hardens them. For making stew, it is best to have both the water and the milk boiling when the oysters are put in. To stew them first drain the liquid from them and drop them into a pint of water that is just at the boiling point. Add a little salt to the water and let them stand over the fire until the edges curl. As soon as they are cooked enough add a tablespoon of butter, a pint of hot milk, and take from the fire. If a little thickening is preferred it should be stirred into the milk and boiled before it is added to the oysters.

Another simple way to cook oysters is to put them in a tin pie plate large enough so that each oyster will lie flat on the bottom. Pour over them a little of the oyster liquid but not enough to make them float. Put them in a hot oven and heat them just enough to heat them through, which will be about three to five minutes, depending on the oven. Take them up and sprinkle them with salt and put them on toast that has been moistened with the liquid from the pan.—S. K. ORMOND.

Earning Money at Home

For several years we lived near a small mining town. We sold to the miners and their families just about anything they asked for that was produced on the farm, some days amounting to as much as $50 worth. Our specialty probably was mince meat. Now I am right here with a good recipe:

3 lbs. boiled beef chopped, 1½ lbs. suet chopped, 9 lbs. apples chopped, 6 lbs. raisins (seedless), 5 lbs. sugar, 2 tablespoons cinnamon, 2 tablespoons nutmeg, 2 tablespoons allspice or cloves, 2 tablespoons salt.

Blend with the following sauce: ½ lb. butter and ½ gallon vinegar brought to a boil and thickened with 6 tablespoons of flour stirred to a smooth paste. Sweeten to taste and add 3 tablespoons of lemon extract. I do not use currants because they are tedious to clean.

The vinegar helps to preserve and the mince meat can be kept quite a while, in fact it is better if kept a few days until the spices blend.

The bulk of these things are produced on the farm and the remainder we purchased in large lots wholesale.

Illinois. LUCILLE S. ALEXANDER.

Peanuts, Carrots, and Celery

At a picnic last week I saw a big dish of salad that looked like salmon. I took a big helping and found that it was decidedly something different. I liked it, nevertheless, and I think that you would, too.

The woman who brought the salad said that she took carrots and put them through the food chopper. By the way I hate to read a recipe that starts out with putting something through the food grinder, don't you? I always have had a dislike for washing it, though goodnes knows what would we do without it? Anyway, that is what she did and then she put the peanuts through. They were salted so she used no salt. Then she cut up celery quite fine instead of grinding it and mixed in French dressing (oil and vinegar shaken together in a bottle) with the whole combination.

I liked this very much and so did the men who sat near me which is always a big recommendation to a conscientious housewife.—LUCY THOMPSON.

Why Women Prefer Farm Life

They say (and "they" are a very reliable source of information) that farm women are generally more content and happier in their homes than city women are. I always believed that they were, but I often wondered what the real reason was. By interviewing a number of farm women, all young women, their opinions on the matter have been brought together and have practically formulated the conclusion.

The opinions gathered were from only young women and in most cases from such who had been teaching or been self supporting in some way or another before marriage. One had been a trained nurse. That type of woman was chosen because in no case was there any woman who had lived on the farm so long that she would prefer to remain rather than try to adjust herself to new conditions.

There were many reasons why women loved the farm. Probably one of the chief ones was because it was a good place for the children to grow up. The other great reason was because it is easier to maintain health and vitality with this type of work and type of home. The greatest reason for preferring farm life is, it seems from all reports, the economic independence the farmer's wife enjoys.

The reason was not always so clearly stated. Some will say that they like the partnership which the farmer and his wife enjoy. Some like the importance of their help in the work of the farmer. Some like the opportunity they have of making a little money on the side that they may spend as their own. It is one mode of living under which the woman can have both a business career and her home and children at the same time.

With improved homes and better appliances to work with, the woman will have increasingly more time to give to her business, and the farm home will become increasingly more attractive to the girl who is interested in farming.—SOPHIA K. ORMOND.

Another Woman Makes Extra Money

I have just heard of another venture in money making on the part of an energetic farm woman.

Her daughter helps her and they go to people's houses and hang wall paper. At first they had very little knowledge of the fine points but experience taught them and soon the people in the town close by began hiring them.

They usually start about eight-thirty and leave at four-thirty or five, charging five dollars a day. Of course they have worked tremendously hard but they have been successful. It is not a thing every woman would have the strength for but it is a plucky idea.—LUCY THOMPSON.

Pork Chops and Corn

"Hog bilin' time" is the way one of our neighbors always used to refer to the butchering season. Some one of you will always be working with meat as soon as the weather is cold enough so you may appreciate a new way of fixing pork chops.

I never was very fond of them as they always seemed a little hard and

awfully greasy. The rest of my family dotes on them and that made it a little inconvenient so I was glad when a friend gave me this new way of cooking them. Now I like them as well as the rest.

First cook them in a frying pan until they are brown and partly done. Then put them into a baking dish and pour over them a can of corn—Golden Bantam lookes nicest because it is yellow—and on top of this put either buttered crumbs or else gravy that has been made in the frying pan from the fat of the chops.

This should all cook slowly, just long enough to be sure that the meat is thoroughly done. Fast cooking spoils the corn and burns the crumbs. —Lucy Thompson.

Peddlers

One of the big eastern newspapers wrote in an editorial lately that the farmer's newly-acquired prosperity may be his undoing if he does not watch out.

"As soon as the farmer is reported to be prosperous," the editorial runs, "all the fakers in the country buckle on their packs and start out. They will sell, or try to, anything from mouse traps to patent churns and washing machines. Now and then the farmer gets something good for his money but nearly always he is the 'goat'."

Maybe this thought is worth passing on. You may not know that you are prosperous but the idea seems to be getting about through the papers that you are, so it is well to be on the lookout for oily-tongued agents. Maybe you want to buy, but don't be talked into it against your will.

A little farm bride of a year was called to the door by a smooth book agent. She was timid; he was determined. When he left she had signed a paper agreeing to pay the balance of thirty-five dollars (she had given him five) for a set of books on how to raise the children.

When her husband came in she was almost in hysteria. She hadn't wanted the books, she knew she couldn't afford them anyway, but she didn't know how to refuse to take them.

Next time you see an agent at the door, remember that it is a favor to him for you to consent to talk to him at all and that you have as good a right to refuse to buy as he has to try to persuade you. Don't forget, too, the dangers of signing your name to a paper that you have not read and understood thoroughly. It is a very binding thing and the process of showing by law that you were co-erced into it is long and expensive.—Lucy Thompson.

Making Money on the Side

In reply to your request, "Can You Help", I will tell you how I make money that may be helpful to others. So many farmers' wives would like to make a few dollars.

I make quite a bit of money outside of all my other work. I raise and sell bees, honey, asparagus, and Washington asparagus roots, pedigree strawberry slips and berries, and garden vegetables that I can spare. I raise and sell the sets of an imported white multiplier onion that net me a nice sum each year. I set them early 8 to 10 inches apart in rows with rows 16 inches apart. They multiply from about 7 to 26; are sweet and tender and a curiosity to persons who never have seen them. When you want green onions, you pick a whole handful just from one onion. They grow quite large when planted early. Onions are in demand, easy raised; seeds and onion sets are too expensive and too much work. I raise my onions and store them by the first of August, and sell them during winter after busy times. I advertise them and sell all I can spare.

I have 70 hills of asparagus which net me $10 besides that for my own use. It pays the farmer's wife to plant a nice bed if she lives where she can sell it. After you get the bed started, it's profit after the third year for many years with but very little care.

Washington. (Mrs.) Anna Hyatt.

Your Mail Box

A dilapidated looking mail box at the entrance to a farm is like a dirty front porch; it does not encourage further acquaintance. A nice looking box I saw the other day was set up on a very sturdy post that had the bark peeled off. The effect was pretty and neat and the cost nothing.

Sometimes an otherwise neat box is spoiled by having the owner's name put on badly. Did you know that you can buy metal alphabets complete with all the letters and punctuation and everything down to the &? These are squared off so that by drawing a line below the place where the name is to go you can get the name on perfectly straight. The shape of the letter is cut out of the metal so all you need is a daub with the paint brush and there it is.

The metal alphabet will last two or three lifetimes, is not expensive, and is very useful around a farm where things are advertised for sale at the road. The old one we used to have at home also served to entertain the children many a rainy day.—Lucy Thompson.

Begone, You Old, Dirty Dish Rag

Sanitary milk utensils are never dried with a towel, that we all know. Yet, when we come to the kitchen we think we must dry the dishes. Why? Does it make them any cleaner? They may have a little water on them if we don't dry them and besides you say it looks lazy to let them go. A dish drainer is a common sight now days and necessitates scalding water for rinsing. But you say you have no drain board. I have used a colander turned up side down in the drain pan. It takes three pans with this method. One with the hot suds for washing, another with scalding water for rinsing and the third with a round flat colander upside down in it for draining. The dishes are clean washed this way and you can take the time it would have taken you to dry them to read to the children or to father or to yourself. Give those dishes the benefit of the doubt. If there is a drop or two of water on the lower edge of a plate you can get it when you set the table next time. Besides it's good training for the use of an electric dish washer.—Sally Rurane.

Cinnamon Toast

Cinnamon toast has always had rather a grand sound to me. In society stories it seems that some heroine is always daintily nibbling a piece of it with her afternoon tea.

It may be suited to the socially elect but it is just as much for the rest of us, too, and sometimes when the washing has been pretty much of a siege I just throw care to the winds and sit down myself with tea and cinnamon toast. I must admit that I don't look much like the heroine of a society story but I probably enjoy my toast just as much.

I got an aluminum salt shaker—a big one with a handle—and into it put a mixture of sugar and ground cinnamon. Then all you have to do is to butter your toast—put on all your conscience will allow—and then sprinkle the sugar mixture on thick.

Everybody likes it and sometimes when you have had a Sunday dinner that is late and hearty it is all you'll need for supper that night; that is, with something to drink.—Lucy Thompson.

Unusual Vegetable Recipes

Carrot Sticks: Clean and peel the carrots and cut into lengthwise pieces. Boil in salted water until tender, then drain, arrange on a baking tin, cover with melted butter and a sprinkling of salt, pepper, and sugar. Set in a hot oven until lightly browned, then serve at once.

Mashed Beets: Clean the beets but do not cut anywhere. Cook for several hours until tender then remove from water, pour cold water over them, slip off skins and return to a stewkettle. Mash very fine and season with butter, salt, and pepper. Serve hot. For a change add cream or milk to form a juice. This is very pretty and delicious.

Escalloped String Beans: To ½ can of string beans, add 1 beaten egg, 1 cup of bread or cracker crumbs, 1 tablespoon butter, 1½ cups milk, ½ cup bean juice, and salt and pepper to taste. Put into a buttered baking dish and bake in moderately hot oven until solid.

New York (Mrs.) E. Camp.

Germ Poetry

Some communities are having health programs and they are found to be very helpful in getting across to everyone the ideas of health and sanitation that they should have. Here is one (I don't know the author and am sorry that I cannot give the proper credit) that would be fine if spoken by a husky little boy.

"I'm Jimmy Germ,
I'm a villain rare,
I hate clean folks and I hate fresh air,
I'm a trouble maker and I spend my time
Looking for victims for my style of crime.

If I find a boy who likes to scrub
And is not afraid of his daily tub,
I shun him, for it's plain to see
There is no room on that boy for me.

What I like best is a dirty boy
(Dirt makes disease and brings me joy)
Who sleeps in impure air all night,
With doors and windows shut up tight.

On him I find a home until
I multiply and make him ill.
Then I enjoy his misery.
Oh, a villain's life is the life for me!

Bath Tubs Again

Not long after our last talk on bath tubs I went to a big girls' dormitory and saw another verse that was calculated not only to help keep the tubs clean but it had a slight matrimonial slant that may be useful if you have growing daughters who are careless. If they are in school they will recognize the verse that this one parodies:

"Wives of clean men all remind us
We must leave the wash bowls white
And departing leave behind us
No rings in the tub at night."

—Lucy Thompson.

Be Sure to State Size

We receive a number of orders for patterns every day that cannot be filled promptly because of incomplete address or failure to state size.

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Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Miscellaneous Fashions



No. 2262—Becoming Lines. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 takes 5 yards 40-inch material. Hot-iron transfer pattern No. 717 (blue and yellow) costs 15c extra.

No. 2251—For full figures. Cut in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. Size 36 takes 3⅞ yards 40-inch material.

No. 1942—Practical Apron Style. Cut in sizes 36, 40, 44, and 48 inches bust measure. Size 36 takes 2⅜ yards 36-inch material.

No. 2210—Simple Daytime Style. Cut in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 takes 3⅞ yards 36-inch material with ⅞ yard 32-inch contrasting.

No. 2245—One-Piece Apron. The accompanying diagram is a reduced likeness of the pattern which cuts in one piece. Cut in sizes 16 years, 36, and 44 inches bust measure. Size 36 takes 2⅞ yards 36-inch material.

No. 1300—Middy Dress. Cut in sizes 4, 6, 8, 10, 12, and 14 years. Size 8 takes 2 yards 36-inch material with 1⅝ yards 36-inch contrasting or light material.

No. 1598—Rag Toys. These cunning rag toys can be made from socks and stockings that have outlived their usefulness. Colored bits of silk can also be used. The kiddie will enjoy a rag toy like this for Xmas. Cut in one size only. For material requirements, see pattern envelope.

Fashion Magazine

An attractive wardrobe is not entirely a matter of money. It is more a matter of proper selection of styles and correct fit. With the help of our dressmaking Fashion Magazine, the woman forced to be economical in clothing expenditures can dress as well as women of means This book offers a good selection of styles which can be made inexpensively. So in ordering your pattern, we suggest that you enclose an extra 10 cents for a copy of The Fashion Magazine. Address your order to Fashion Department.

DAIRY MARKET NEWS

December Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 111 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributor's plant:

Table I December Producers' Prices by Geographic Sections

Sections	Range of Prices per cwt.	Comparison of Average Prices 1924 Dec.	1924 Nov.	1923 Dec.
New England	$2.92—3.87	$3.41	$3.44	$3.65
Middle Atlantic	2.45—3.27	2.83	2.80	2.79
E. North Central	1.60—3.13	2.44	2.42	2.71
W. North Central	1.65—3.10	2.15	2.13	2.49
South Atlantic	2.38—4.94	3.57	3.57	3.66
E. South Central	2.30—3.17	2.78	2.79	2.46
Pacific	1.75—2.98	2.60	2.60	2.90
W. South Central	1.75—4.07	2.76	2.76	2.81
Mountain	1.49—3.20	2.41	2.40	2.59
United States	1.49—4.94	2.70	2.70	2.89

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers:

Table II December Producers' Prices F. O. B. City and Consumers' Prices

	Producer Rec'd per cwt.	Consumer Pays per qt.
		cents
Birmingham, Ala.		18
Pheonix, Ariz.		10—12
Little Rock, Ark.		16
San Diego, Calif.	$3.50*	14
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	2.01	12
New Haven, Conn.	4.22*	16
Washington, D. C.	3.20	14
Jacksonville, Fla.	3.84	17—20
Chicago, Ill.		14
Indianapolis, Ind.	1.92	12
New Orleans, La.	3.04*	14
Des Moines, Iowa	2.90*	13
Topeka, Kansas	2.00	10
Louisville, Ky.	2.47—2.63	13
Baltimore, Md.	3.31*	12—13
Boston, Mass.	3.86*	14.5
Detroit, Mich.	3.00	13—14
St. Paul, Minn.	2.50	11
St. Louis, Mo.	2.60	13
Butte, Mont.	2.56	13—14
Trenton, N. J.	3.66*—3.17*	12
New York, N. Y.		15
Fargo, No. Dak.	2.10	
Cleveland, Ohio	3.30*	13—14
Tulsa, Okla.	2.45	15—20
Portland, Ore.	1.95—2.00	10—11
Philadelphia, Pa.	3.14*—3.17*	12
Pittsburgh, Pa.	3.60*	14
Providence, R. I.	3.86	14.5
Sioux Falls, So. Dak.	2.25*—2.50*	12
Memphis, Tenn.	2.58*—2.80*	15
Dallas, Texas	2.80	15
Salt Lake City, Utah	2.44	11—12
Richmond, Va.	3.81*—4.05*	14
Seattle, Wash.	2.00*—2.05*	10
Milwaukee, Wis.	2.45*	10

* Basic prices paid for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at producers' railway shipping points are given in Table III:

Table III December Prices at Country Stations

	At country station	Freight zones to which prices apply
New Haven, Conn.	$3.70*	28c rate
Washington, D. C.	2.38*	35c rate
Chicago, Ill.	2.40	All
Baltimore, Md.	2.73*	35c rate
Boston, Mass.	3.04*—3.13*	181-200 mile zone †
St. Louis, Mo.	2.20	34c rate
Hoboken, N. J.	3.27*	53c rate
Trenton, N. J.	2.51*	28—33c rate
Buffalo, N. Y.	3.04*—3.09*	28c rate
New York, N. Y.	3.00—3.27*	201—210 mile zone‡
Cleveland, Ohio	2.90*	All
Philadelphia, Pa.	2.57*—2.60*	51—60 mile zone
Pittsburgh, Pa.	2.75*	All
Scranton, Pa.	2.60—2.80	30c rate
Dallas, Texas	2.00*—2.40*	All

* Basic prices for fluid milk † 46.5 rate ‡ 53c rate

Table IV gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat.

Table IV December Retail Prices to Consumer

Cities	Special milk per Qt.	Certified milk per Qt.	Buttermilk per Qt.	Cottage Cheese per Lb.	Light† Cream per ½ Pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Albany	16—18	26	10	10	17—20
Boston	18	25	10		
Baltimore		30	12	15*	16
Buffalo	15	26—27	10	15	20—22
Chicago	17	25	10—20	15*	16
Cleveland	18—25	25—30	12	10—15	18—23
Denver	14		8		13—14
Des Moines	15—25		10	14	14—16
Detroit	25	25			16
Indianapolis	16		9—10	20	13
Jacksonville	22		10—11	30	15—30
Kansas City	15	25	10	20	8—16
Los Angeles		28—32	10		17
Louisville	16—17	24	9—13	20	16
Memphis		30	7—8	15*	14—15
Milwaukee	13—18	25	6	10	13—14
Minneapolis		20	12—13	12*	14—15
New Orleans	18	30	13		17
New York	18—30	28	11		
Omaha	15	20	10	15*	11—12
Philadelphia	14—15	30	8—12		15
Pittsburgh		25	11		18
Portland		20	11	15	12—15
Richmond	18		8		14
Salt Lake City	15		7		15
San Diego	20—22	30	8—9	10	13—14
San Francisco		25	14	20	18
Seattle		20	20	12—15	14—20
Spokane					14
St. Louis	18	25	10—13	15	17
Trenton	16	30	12		13—14
Washington	23	30	12—15	10	15—18

* 12 oz. package † 18—25% fat

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on December 1, figures being given in thousands of pounds (000 omitted):

	Dec. 1 5-yr. ave.	Dec. 1 1923	Dec. 1 1924
Butter, Creamery	63,563	51,508	100,743
Cheese, American	45,776	55,105	58,718
Cheese, Swiss	5,045	7,358	10,198
Cheese, Brick	1,490	1,945	1,689
Cheese, Limburger	918	1,098	1,060
Cheese, All Other	7,863	7,117	5,846

The net withdrawals of butter from storage during November were thirteen million pounds greater than the average of November for the past five years and ten million pounds in excess of November a year ago. This still leaves a larger quantity in storage on December 1 than a year ago, but it is some satisfaction to note that the storage is declining at a faster rate and that there is prospect that the market will get into a stronger position. Cheese also shows a similar tendency.

Cheese Markets

(Report by U. S. Dept. of Agr.)

During the week ending December 13 price advances of ¾—1c were effective on cheese at Wisconsin primary markets. This advance which came at the meeting of the Farmers' Call Board on December 5 and the Wisconsin Cheese Exchange December 6 was the culmination of the firm situation developed during recent weeks and while slightly more abrupt than generally predicted left dealer sentiment firm and unshaken. Although trade on current made cheese was fair to good, inquiry was not particularly heavy and the usual amount of demand at this time of year from the South was not evident. However, dealers apparently were able to clear up stocks on hand at a good margin and the market maintained its firm position. Demand for cured cheese was reported as quite heavy, with eastern orders predominating, and at times some difficulty was encountered filling orders on account of the large volume. New York State markets were reported very firm although activity was considerably restricted by light available supplies due to the large decrease in the make and the fact that many owners were unwilling to sell at prices generally obtainable.

The average wholesale prices on American cheese, style Twins, for the week ending Dec. 13, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Dec. 13 1924	Dec. 6 1924	Dec. 13 1923
	Cts.	Cts.	Cts.
New York	22.5	22.3	24.1
Chicago	21.3	20.2	21.7
Boston	22.7	22.1	25.2
San Francisco	19.7	20.3	23.4
Wisconsin Board	21.0	20.5	21.4

The receipts of cheese at these markets were 3,642,120 lbs. for the week as compared with 3,988,696 lbs. last week and 3,348,613 lbs. a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

All markets ruled about steady at unchanged prices on Friday and Saturday of the week ending December 6 and opened on Monday, December 8, at unchanged prices. The effect of surplus supplies and lack of demand caused by the relatively high price levels which had existed for the past two weeks caused all markets to weaken and decline sharply on Tuesday. As the week progressed, however, and prices worked to a point which operators felt was for the moment close to the bottom a little more confidence appeared in some quarters. At the close of the week those buyers who had been practically off the market were again buying in a small way, and this coupled with some investment buying steadied the market to a slightly firmer position.

The Danish market was decidedly firmer during the week end with the Copenhagen quotation at 610 kroners or 48.92c per pound at prevailing exchange. Canadian butter which had previously arrived at New York and Chicago was fairly well cleaned up and with the domestic market at its present level there was little possibility of further arrivals at the moment. Several additional lots of American butter amounting to 3,513 tubs, were returned from England. There were rumors that still more is to be returned.

The average wholesale prices on 92-score butter for the week ending Dec. 13, 1924, for the week previous, and for the corresponding week a year ago were as follows:

	Ave. for the week ending Dec. 13 1924	Dec. 6 1924	Dec. 13 1923
	Cts.	Cts.	Cts.
New York	44.2	46.1	54.4
Chicago	41.7	46.1	53.0
Philadelphia	45.1	46.4	54.8
Boston	43.6	45.3	53.0
San Francisco	38.4	39.7	47.7

The receipts of butter at these markets were 8,891,575 lbs. for the week as compared with 8,517,661 lbs. for last week and 10,086,115 lbs. a year ago.

CHICAGO, Dec. 17—Following the advance of ½ cent on practically all scores, the butter market today appeared firm. Demand was principally for 90-score and better, with buyers showing more interest. The centralized car market was steady although trading was quiet. Fresh butter—92 score, 42c; 91-score, 41c; 90-score, 39½c; 89-score, 37¾c; 88-score, 35¾c; 87-score, 34c; 86-score, 32c. Centralized carlots—90-score, 39½@40c; 89-score, 37½c; 88-score, 35c.

MILWAUKEE, Wis., Dec. 17—Creamery, extra tubs, 42c; standards, 41c; extra firsts, 41@41½c; firsts, 38@40c; seconds, 34@37c.

Eggs—Fresh gathered firsts (new cases including cases), candled 54@55c; miscellaneous lots, shipping cases returned candled, 53@54c; seconds, dirties, 30@31c; checks, 29@30c.

Cheese—American full cream; Twins, 20@20½c; Young Americas, 21@21½c; Longhorns, 21@22½c; squares, 22@22½c; Limburger, new, 18@19c; imported Swiss loaf, 42@47c.

FOND DU LAC, Wis., Dec. 15—Average cheese prices (majority of sales) f. o. b. shipping point: Twins, 21c; single Daisies, 22c; Longhorns, 22¼c; square prints, 22½c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Dec. 13; single Daisies, 20½c.

NEW YORK, Dec. 17—Butter—Easy; receipts, 10,365 tubs; fresh supply, 61,105 tubs; creamery extras, 44½c, specials 45@45½c.

Eggs—Firm; receipts, 12,212 cases; fresh supply, 43,672 cases; white, fancy 73@74c; fresh firsts, 59@68c; western whites 39@72c.

Carload Prices of Hay, Straw, and Feed, Dec. 13, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26 50	26.50	.....	21 00	21.25	26.00	27.00	24.00	19.50	24.00	18.00	24.00	.....	16.50	
No. 1 Clover, mixed	20.00	.....	.....	18 50	17.75	.....	27 25	.....	.....	.....	16.50	20.50	.....	15.00	.....
No. 1 Clover	.....	24 50	.....	18.50	.....	.....	.....	.....	19.50	17.00	.....	21.50	.....	15.50	.....
No. 1 Alfalfa	.....	30 00	.....	.....		35 00	30 00	30 00	28 00	23 00	24 00	..	17.50	22 50	25.00
Standard Alfalfa	.....	25 50		.....		33.00	28 00	27 50	.....	18 00	20 00	..	16.50	19 50	24 00
No. 2 Alfalfa	.....	23 50	.....	.....	.....	29.00	.....	24.00	24.00	14 00	16 00	18.00	14 50	17 00	23.00
Oat Straw	13.00	15.00	16.00	12.50	13.50	.....	.....	.....	12.50	10.00	9.00	.....	7.75	.....	.....
Feed—Bagged															
Wheat Bran	.....														
Spring	37 75	.....	38 00	.....	36.25	36.90	.....	.....	.....	32.00	31.00	.....	.....	.....	.....
Soft Winter	38.00	.....	38.75	.....	37 50	36.90	.....	32 50	34.00	.....	31.50	31.50	.....	29.50	40.00
Hard Winter	37.25	.....	38.00	36.00	...	36.40	.....	31.75	34.00	31.75		31.50	28.25	29.00	.....
Wheat Middlings		.....													
Spring (Standard)	40 25	....	39 50	36 50	37 25	.....	.....	.....	37 00	34 25	32.00	.....	.....	.....	.....
Soft Winter	45.75	.....	45 00	39 00	36.75	45 00		.....	39 00	38 00	.....	.....	.....	34.50	50.00
Hard Winter	.....	.....	.....	41.00	.....	43.00	.....	.....	39.00	43.00	.....	35.50	34.00	34 50	.....
Wheat Millrun	.....	.....	.....	.....	.....	40 00	.....	.....	.....	.....	32 50	.....	.....	31.00	39 00
Rye Middlings	.....	.....	.....	36 00	.....		.....	.....	.....	.....	30 00	.....	.....	.....	.....
High Protein Meals	.....														
Linseed	50 50		49.70	.....	.....	.....			48 50	47 25	46 00	49.50	50.60	51.30	46 00
Cottonseed (41%)	47.25	.....	46.25	44 70	.....	.....	.....	.....	42 00	42 50	44 50	41.50	.....	.....	.....
Cottonseed (38%)	44.25	.....	43.75	42 70	.....	36.00	.....	36.00	40.00	41 00	42 50	39 00	.....	.....	.....
Tankage (60%)	.....		.....	.....	.....	.....	.....	.....	.....	60 00	60 00	60 00	60 00	.....	.....
No. 1 Alfalfa Meal	.....	.....	.....	.....	31 50	.....	.....	28 00	29 00	27 00	.....	25 50	26 50	24.00	30.00
Gluten feed	46.95	.....	48 90	43 70	46 25	.....	.....	.....	42.70	39 80	43.00	.....	.....	.....	.....
Hominy feed (white)	52 25	.....	51 50	.....	47 25	48 00	.....	.....	48 50	48 00	.....	45.00	47 00	.....	.....
Hominy feed (y'llow)	51 75	.....	51.00	.....	46 75	48.00	.....	.....	48.50	47 00	45 00	...	47 00	.....	.....
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	44 00	.....	.....	.....	.....	.....	54 00
Dried Beet pulp	.....	.....	37.00	....	37.75	.....	.....	.....	.....	....	32.00	.....	.....	.....	37.00

Wisconsin Cheese Convention

The 33rd Wisconsin Cheesemakers' convention closed Friday, December 12th after a successful three-day session at Milwaukee. The total membership was 780 as compared with 733 last year. The 460 cheese exhibits included 20 of the large sized drum Swiss, three mammoth cheese, American cheese in three classes, Limburger, Brick, Edam, Camembert, and Muenster. The total weight of cheese exhibits was 13,659 lbs., besides 1,800 lbs. of mammoth cheese. The exhibits were sold to the Kraft Cheese Co. at good prices and weighed and shipped from the exhibit hall by a committee consisting of Supt. J. W. Cross, and Cheese Judges W. F. Hubert and John Cannon, to whose careful work for many years the association members owe much. Checks in payment for all cheese exhibits and cash prizes were mailed to every exhibitor from the convention office at the Republican Hotel December 13, 1924. Diplomas will be mailed in a few days.

The convention sessions in general were harmonious, and highly educational to the makers present. Every maker should attend next year. A few misguided individuals also furnished amusement by attempting to use the convention floor to advertise their business, or to knock their competitors, all of which has no place in an educational meeting.

J. L. SAMMIS, Secretary.

Idaho Holstein Record

Ida U Segis Alta Posch 558677, pure-bred Holstein cow owned by the University of Idaho, has just completed a record of 20,642.2 lbs milk and 682.17 lbs. butterfat, equivalent to 842.7 lbs. butter, according to the official report just received from the Holstein-Friesian Association of America. Her record covers a period of 365 days. She started this record at 3 years, 4 months, and 22 days of age. She had an average test of 3.3 per cent for the year. Her high day in milk production was 78.6 lbs.

Her dam produced 12,402.3 lbs. milk and 399.64 lbs. butterfat at nine years of age. Thus we see that although Alta Posch is only a junior three-year-old, she has already produced 282.53 lbs. more butterfat than her dam did as a mature cow, making an increase of 70.5 per cent. This is a direct tribute to her sire, and is further evidence pointing to the advantage of using a good bull.

Idaho. F. W. ATKESON.

Wisconsin's First 30,000-lb. Cow

In spite of Wisconsin's rank as a leading Holstein state, she has not until recently, had a 30,000-lb. milk producer. Aurora Homestead Badger, owned by Murphy Farms, is the first one in the state to qualify for that honor. Her year record, just completed and not yet officially verified, is 32,323.5 lbs. milk containing 971.92 lbs. fat (1214.9 lbs. butter). Her best day's milk production was 115.5 lbs. and the figure for her last day was 70 lbs. Her best 7-day record was 690 lbs. milk containing 28 lbs. fat (35 lbs. butter).

SALE ANNOUNCEMENTS

Jan. 7—Guernseys. Dispersal of A. C. Loring, Woodend Farm Herd at Fond du Lac, Wis. Charles L. Hill, Sale Mgr., Rosendale, Wis.

Jan. 8—Guernseys. Dispersal of R. K. McDonald herd at Fond du Lac, Wis. Charles L. Hill, Sale Mgr., Rosendale, Wis.

Jan. 14-15—New York State Holstein Sale, Syracuse, N. Y.

Feb. 17—Holsteins. Sherman Bros. Dispersal at Waterloo, Ia. Iowa Holstein Breeders' Association, Mgrs.

Feb. 24—Holsteins. Dairy Center Sale, Owatonna, Minn. Twin City Pedigree & Service Co., Managers.

Mar. 10—Holsteins. Iowa Spring Guaranty Sale at Waterloo, Ia. Iowa Holstein Breeders' Association, Mgrs.

April 29-30, May 1—Holsteins. Fourth Brentwood Sale to be held at Abington, Pa.

The Humble Origin of a Dairy Breed

(Continued from page 731)

as early as 1700 for producing a large amount of milk in proportion to their size.

Between 1760 and 1770 the Earl of Marchmont bought a bull and several cows of the Teeswater (Shorthorn) breed which were brown and white. This was followed by other farmers bringing in Teeswater stock; and one, John Dunlap, is supposed to have brought in some large cows which were of either Teeswater or Dutch breeding.

In 1767 a man named John Orr sent several milch cows of a larger size to his estate in the county of Ayr. One of the cows cost the then high price of six pounds (about $29). These cows were well fed and yielded a larger amount of milk than the native stock. Soon other gentlemen stocked their country estates with cows of the same type and color, which is described as being brown with white spots. The bull calves from this stock soon became very much in demand by the farmers who bought them to improve the native stock. The resulting improvement was rapid, and soon stock from this section was sent not only to adjoining counties but also to many counties in England.

Some writers speak of Channel Island cattle having been introduced. When writing in 1811 on the origin of the breed, Aiton, the historian, mentions "judicious selection, cross coupling, feeding, and treatment" as being the chief factors which had improved the breed.

The period from 1784 to 1795 was one of steady advancement. In 1784 the Highland Society was formed for the purpose of improving the means of communication and advancing agriculture. Five years later the society had gone so far as to offer prizes for essays on the management and breeding of cattle and other subjects related to the improvement of the general business life of the community.

According to Sturtevant, by 1805 the breed had been developed to such an extent that it was not uncommon for cows to give from 24 to 34 quarts of milk per day and even 40 quarts were recorded a few times. By 1811 attention was being paid to the size and shape of the udder. The introduction of West Highland cattle in 1818 resulted in the founding of the so-called Swinley variety—a strain possessing a broader head and more upright horns. The characteristic thick hair and rugged constitution of the Highland race were bred into the new strain.

The year 1853 marks a forward step in the development of the breed. In that year a Scale of Points was adopted by the Ayrshire Agricultural Association. The stress which the early breeders laid on the shape of the udder may be noted in an article written for the "Farmer's Magazine" in 1871, in which the writer says: "The udder well set on. For a prize taker this point must be faultless, as no beauty of form or regularity of other points will make up for the deficiency in the form or size of the milk vessel. If this is in perfection, other and minor points may be overlooked."

Description of the Breed

An account of the breed following its improvement describes the cow as being of a dark-brown color, although various shades of red were common and occasionally a cream colored animal was found. The head possessed a certain fineness of contour, which is common to the breed today. The horns were described as being strong near the head and wide apart.

The type of agriculture had its influence in developing the shape of the breed. The cropping packed the clay soil, making it very hard to work. With the introduction of the grasses the land was seeded and the farmers soon discovered that the clay soil and the moist climate were well adapted to the growth of forage. The Scotch farmers bred cows having well-supported udders, as those with long, pendulous udders could not travel or rustle for their living nearly so easily. The cold, moist climate of Scotland tended to promote a soft, wooley coat of hair, which protected the animal from the wet and cold.

The stock previous to 1750 is described by some historians as being black and white. According to Cully, the black color was so common that they were described as black cattle in old deeds and statutes. This color gradually changed until black turning to brown was common, though the face and back were white. Other historians speak of them as having some white on the flanks and on the belly.

Aiton describes the breed of 1760 as being very small, of poor conformation, and poorly fed. They were mostly of a black color with a white stripe along the backbone, and with white on their faces and on their flanks. Their pile (hair) was wiry and coarse.

By 1780, fashion dictated that a cow must be red and white; and by 1805, a mottled-colored cow commanded a higher price. A fine neck with light dewlap joined the head to the rather round body which possessed ample width in the loin. The udder, or milk vessel as it was called, was attached high up behind and far forward on the body, thus causing the teats to be placed far apart. These cows were noted for giving a large amount of milk in proportion to what they ate. A cow would give from 700 to 1,000 gallons of milk per season, of which 28 to 30 gallons were required to make 24 pounds of cheese and 3½ to 4 gallons to make a pound and a half of butter.

The Dairying of a Duke

The dairy practice of the Duke of Athole was a half century ahead of his time. In getting his herd together the duke bought up the first-prize cows at the various shows. Twenty-eight champions were arranged according to size and color. The milking was done by milkmaids who washed their hands in separate basins and dried them on separate towels before a "pap (teat) was pressed", and they washed their hands again before milking the next cow. Each girl had a little set of scales and a slate which she used in weighing and recording the weight of each cow's milk.

The byre (barn)was quite modern, having good ventilation, light, and proper temperature. Two cows were placed in stalls having wooden partitions instead of stone, so the cows would not grind their horns. The names of the cows appeared on panels of wood suspended one over each cow. The floor was so arranged that the forward portion was covered with a soft matting and the rear portion was constructed of perforated iron so the liquid manure would drain off into tanks.

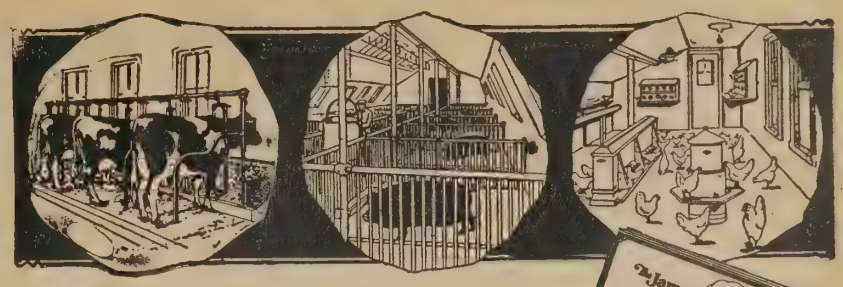
Before the duke established this dairy, milk was very scarce in Dunkel and the inhabitants often drank beer with their porridge. His milk sold for about 8 pence (about 16 cents) a gallon, skimmilk sold for about four cents, and butter was worth 28 cents a pound. It took three gallons and three quarts of milk to make a quart of cream, which made one pound of butter.

Ayrshire Herd Book Society

Two years after the organization of the American Association the Ayrshire breeders and farmers got together and on June 26, 1877, formed what was to be known as the Ayrshire Cattle Herd Book Society of Great Britain and Ireland. The society had two objects—to maintain the purity of the breed and to publish a herd book containing the pedigrees of the animals of the breed and other useful information about the breed. Both the landowners and the breeders of Ayrshire cattle gave their hearty support to the enterprise and the society was successful from the start. The first volume of the herd book was published in 1878 and contained the registration of over 550 animals.

The Scotch breeders have a two-day test called the Derby. The cow is first tested in the show ring as a show animal and then for her production as a dairy cow. The Milk Records Society of the County of Ayr conducts tests somewhat similar to the Advanced Registry System in America.

(To be continued)



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How to get a good dairy barn.
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How to give cows pasture comfort in a barn.
How to judge a stanchion.
How to feed cows for profit.
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The fondest anticipation of breeders conducting Advanced Registry testing is to breed, develop, and own a world's champion producer. W. L. Glatfelter, owner of Old Forge Farm, Pennsylvania, has realized this ambition in Jack O'Shields White Blair 2d, the new queen of Roll of Honor Ayrshire four-year-olds. In 300 days she has given 14,511 lbs. milk, 555.86 lbs. fat; carrying a living calf 270 days of this period, and qualifying as a Gold Medal Ayrshire. This yield places her in line for the association silver cup for this year in her class. In the Advanced Registry she is credited with 14,816 lbs. milk, 568.94 lbs. fat in 316 days, she having dropped her calf seventeen days after completing her Roll of Honor record.—Ayrshire Breeders' Ass'n.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Georgia Boys in New Era

A new era is at hand for Georgia farm boys—dairying.

For the past four years Georgia boys have been judging fat stock at the International Live Stock Exposition at Chicago with remarkable success, topping Iowa—the famous corn belt state.

Georgia is intensely interested in dairy cattle, and for this reason her Smith—Hughes boys will be represented by a team at the National Dairy Show rather than at the Fat Stock Show in Chicago. This year marks the first appearance of the Georgia junior dairy cattle judging team at the National. While they did not rank first, nor so very close to the top, they learned much on their trip that will be of immense value to themselves and their communities back home. They made a good impression in the boys' and girls' club camp and made hosts of friends.

The first team of vocational boys to represent the states at the National Dairy Show came from the Hart-



GEORGIA JUNIOR DAIRY JUDGES

well High School and was composed of Julian Burns, George Leard, Wm. Ray, and Dennis Reynolds.

They had a rather unique method of training. They loaded a camping outfit consisting of two tents and equipment into a car and traveled over the state pitching their camp wherever they found good dairy cattle.

Providing the money to defray their expenses was not difficult on account of the great interest in dairy farming in Georgia at this time. The Atlanta Trust Company gave $250, the Atlanta Chamber of Commerce $100, and the Kiwanis Club of Hartwell $100.

The team made the trip to Milwaukee in charge of L. M. Sheffer, assistant state supervisor of agricultural education, who is a graduate of the Wisconsin State College of Agriculture, and L. E. Hemrick. Before the contest the Georgia boys made a tour of Wisconsin, spending considerable time in the heart of dairyland.

Georgia. PAUL CHAPMAN.

It Happened in Texas

Taking a Jersey heifer, unattractive in appearance and showing little promise, Willie May Johnson, a little Texas calf club girl, has so groomed and cared for this animal that it has developed into a gold and silver medal cow. Quite an accomplishment, don't you think? In fact, many mature breeders would be proud of this record.

In the spring of 1921, Willie May's club heifer was placed on official test. In 305 days she produced 466.84 lbs. butterfat and won a silver medal, and the 1922 Texas junior two-year-old championship. In March, 1922, she again freshened and was put on her second official test. This time she produced 734.28 lbs. butterfat in 365 days and won a gold and silver medal awarded by the American Jersey Cattle Club. Two of her calves have been sold for $400 and one is still on hand.

And all this because Willie May can find faith with good feeding and intelligent treatment.—American Jersey Cattle Club.

Philosopher Phil Says

Here is something for you juniors who are enrolled in 4-H club work to remember.

Each letter in C-L-U-B W-O-R-K has a meaning. The first letter "C" stands for character. Always strive to build character. "L" stands for loyalty—to your club, your project, your home, your school, your community, your state, your country; loyalty everywhere. "U" is for understanding. "B" is for business methods. That's why you keep a record book.

"W" is for work habits. "O" stands for originality. "R" is for resourcefulness and "K" for kindness—be kind at home, kind to your brothers and sisters, to your parents, your teachers, your friends, your calf, if you have one. Remember that "K", though last in this word, should stand first in your thoughts and actions.

A Few Trapping Tips

The trapper must know the habits of the animals he would catch. Time spent studying wild life will pay big returns on the trap line. With such a knowledge, the fur seeker understands what to use as a "draw"—and when to use it.

With the exception of muskrat, all the smaller animals can be lured by meat. To illustrate, the mink will be tempted by muskrat flesh, chicken entrails, and similar. The raccoon likes fish, clams, and frogs. Opossum seek small birds, also fish. Skunk and civet will be lured by almost any kind of fresh, bloody meat. Crows, hawks and owls, according to my experience, never should be used for bait, although some good trappers claim they get results with them. For muskrat, use corn, apples, carrots, parsnips, and similar.

The more cunning the fur bearer, the more care it is necessary to use



THE PRIDE OF NORTH DAKOTA

Introducing Mary Cotner (left) the 12-year-old champion girl demonstrator at the 1924 National Dairy Show, her team mate, Edna Vogel, age 18, and their coach, C. H. Willson. Demonstrating "Production of Clean Milk", these two girls won highest honors as a girls' team at the National. Mary won third in the health contest. Charles Cotner, local club leader, and Miles Chaffee, cow tester, share the credit for the team's success.

in selecting the lure. To illustrate, the mink would be more apt to go after a fish anchored in water than it would chicken entrails, although chicken entrails, as a rule, is a better bait. Further, decoys put too near dens are liable to cause the animals to become suspicious. Hence, a good deal of judgment must be exercised when sets are made.

So far as commercial baits are concerned, most of these are good. However, none will produce animals where none are to be found; no bait will actually drag the game into the traps. Remember this at all times.

Ohio. GEORGE J. THIESSEN.

School Teacher Organizes Splendid Garden Club

(Rural school teachers and boys and girls—how about organizing a "project" club in your school? It is a fine idea, especially in connection with your agricultural class. This is the story of how a country school teacher in Wood County, Wisconsin, organized and supervised a very successful garden club. Here is the challenge:)

Miss Alvina Hansen aroused interest among her pupils by holding a school fair at which the boys and girls showed garden vegetables, clover seed, and ear corn. The exhibits were arranged around the "Queen of the Harvest", a huge doll whose head, mounted on a 2-board frame, was a pumpkin with eyes, nose, and mouth. A dress of yellow and black crepe paper was draped on the frame.

After the fair some fourteen of the boys and girls met during the noon hour and organized a garden club with the assistance of their teacher and A. N. Howalt, Smith-Hughes agricultural man from the county. About eight meetings were held. Books and pamphlets were read and reported on, club songs sung, garden plans made, methods of planting and caring for the different vegetables, and eradicating insects and weeds were discussed.

"Before going away this summer," said Miss Hansen, "I visited the club members and checked up on their work. Nine boys and girls planted gardens.

"On October 29 the boys and girls prepared the exhibits and cleaned up the schoolhouse for the evening. It was really surprising to see the interest taken. The tables were covered with orange and black crepe paper. The vegetables, consisting of beets, carrots, onions, squash, pumpkins, popcorn, cabbage, cucumbers, and potatoes, and house plants owned by club members were placed on the table "setting off" the exhibit beautifully. As a background blue oatmeal wall paper, on which were mounted pressed autumn leaves, was used.

"Mr. Howalt judged the exhibits. Blue, red, and white ribbons were awarded the exhibitors. A program followed.

"A cafeteria lunch was served by the girls. The proceeds, together with those for the sale of popcorn, candy, guessing contest, were means with which a victrola and six new records were purchased for the school."

Soliloquy of a Dairy Calf

I am a dairy calf. I am not very old and not very big. But some day if I am treated right I will grow up into a good dairy cow. And then I, too, will be considered useful, for I will give nature's most perfect food—milk—and I will produce more calves to grow up into good cows.

I need good care. I like to be clean. I like a soft bed of fresh, dry



ANOTHER FIGURE 7 CALF

Owned by Vernon Morti, a project boy in a Minnesota high school, E. N. Johnson, agricultural instructor.

straw. I like to be brushed occasionally.

I like exercise. I guess every growing animal does. I am never happier than when romping in a light, airy box stall or in a dry, clean yard on a sunny day. If I don't get exercise, I don't feel well; my legs get cramped. I happen to be the property of a calf club boy. He puts a halter on me and leads me around—sometimes I lead him. But I feel fine when I have a chance to romp and play, and get my exercise every day.

There is nothing that makes me feel better or makes me grow stronger or faster than milk. I am nearly two months old now, but for the first three weeks of my life I was fed on whole milk. I was fed three times a day, and only a little at each meal. The milk was warm. I liked it. I grew big and fast. I am now drinking skimmilk every day. I am also getting some grain. I like whole oats and whole corn. I am also eating some silage and some fine alfalfa hay. My, but it is good. Sometimes I get thirsty. Then I want a drink of water. Sometimes I like to eat



THIS IS THE CLASSY GROUP OF AYRSHIRE CLUB CALVES LED BEFORE THE JUDGES AT THE 1924 NATIONAL DAIRY SHOW

sak—this makes me thirsty and then I drink more water.

One day I was sick. My master was kind to me. He gave me some medicine. It made me well. I don't know what made me sick, but I think I ate something that didn't agree with me.

I like kindness. All dumb animals do. I heard a neighbor's calf bawling one day. Later I found out that the neighbor had treated the calf very roughly. My master is good to me. I like my master.

I hope some day to be able to pay back the kindness and the fine care which my master has given me.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

The Christmas issue (December 19) of Hoard's Dairyman is full of interesting articles. Were we to discuss these in as much detail as they deserve it would take far more space than we are allotted. But there are a few outstanding points which we wish to call to your attention.

Give John Feedwell's ration for his dairy cows. For cows weighing 1,200 lbs. with a daily production of approximately 40 lbs. he feeds 16 lbs. of fine alfalfa hay (all that the cows can eat); 40 lbs. of good silage; and 9 lbs. ground corn and oats. For cows weighing 900 lbs. and producing about 26 lbs. of milk, he feeds 30 lbs. of good silage, 12 lbs. of alfalfa hay, and 7 lbs. ground corn and oats. (See W. J. Fraser's article "Bossies Have Christmas Dinner at John Feedwell's".)

Compare briefly the farm methods of fifty years ago with those of today. The ox cart has been replaced by the automobile; the scythe and cradle have given way to the modern reaper. The heated horseshoe which was put into the churn to drive out the witches has been replaced by the more scientific ripener and starter; the milking machine has become of general use; the machinery of the factory has lifted butter making and cheese making off the shoulders of the farmer's wife; the Babcock test has been invented and has been rapidly displacing the scrub cow; tradition has given place to science, superstition to reason. ("A Half Century of Progress" by Eugene Davenport.)

How can profits from cows be increased? "By keeping cow test association records," says E. H. Jones. "By the practice of intelligent breeding and feeding based upon these records." Frank O. Lowden says that the most economic production can be obtained through cow testing associations and that this is one of the means of stabilizing the dairy industry.

What effect does sunlight have upon farm animals? It has long been known that plants must have sunlight in order to grow. It has recently been discovered that the same is true in a considerable measure for farm animals. Direct sunlight has been found to prevent rickets—a leg weakness—and osteoporosis—a long name for the disease which means weak or porous bones. Poultry and swine suffer from rickets. Sunlight is one prevention. Dairy cows suffer from octeoporosis which often means a lower milk flow. (See article "Light and Its Influence on Farm Animals" by E. B. Hart.)

Will you please turn, right now, to the address label on this copy of Hoard's Dairyman. If you find anything like this:

1 Jan. '25
or
31 Dec. '24

or anything that looks like "Jan. '25" on the label, it means your subscription to the "Dairy Gospel" expires with this issue.

Find that renewal circular we sent you a few days ago

—fill it out and mail it. It will be a very much appreciated favor to us if you will do this now because these renewals coming in later, all in a bunch, sometimes just make it impossible to avoid your missing a few issues. And you can never tell but that the very one you miss will be the one you most want.

Junior Letters

A Meeting Program

Hoard's Dairyman Juniors:—The School Society meeting is held at the school house. First we elect a president (I'm president now), secretary, vice-president, treasurer, and chairmen of different committees. They are reading circle, improvement and health committees. They hold office for three months. We hold a meeting every three weeks and also have a program that same day.

Here is our latest program: Poem read, story told, current events, talk on Florida, recitations by Primary Grade, and song by school. The children of the school participate. All visitors are welcomed. My address is R. F. D. 7, Monroe, Wis.

Lena Indergand.

Dairying in New Jersey

Hoard's Dairyman Juniors:—The farms in New Jersey are not very large and don't raise many crops. The farmers here are all "broke" because of raising potatoes and big fertilizer bills. Hay is plentiful and is not bringing $35 to $40 like it did last year. The dairy business is likely the most profitable now days as it brings a steady income. The most dreadful thing which is now in New Jersey is testing all herds and having all accredited herds. Many cattle have been slaughtered which made a scare to every dairy farmer.

Milk in New Jersey is bringing a fair price, from 5½ to 10 cents a quart. This is a good deal better than potato farming. Most cows are now brought into New Jersey from other states such as Michigan, Wisconsin, Ohio, and Kentucky. All these states have clean tested cows which are not available in New Jersey. Those which are brought in from these states prove to be real "milk producers" and milk from 50 to 60 lbs. a day. This shows that these cows are satisfactory in New Jersey. New Jersey is developing in the "dairy business" now. Wish to hear from many juniors and will answer them any information about New Jersey. My address is 67 Center St., Freehold, N. J.

Henry Zlotkin.

Following Danny Dare's Methods

Hoard's Dairyman Juniors:—I am 14 years old and am five feet, three inches tall and weigh 121 lbs. I live on a 116-acre farm 4 miles south of Williamsburg.

I like to read Hoard's Dairyman, especially the Junior page.

The Sept. 5th and 12th issues of the Dairyman have good articles on the Adventures of Daniel Dare. I have made 25 corn trees and expect to make some more.

I think Hoard's Dairyman is the best farm paper published and am always glad when Friday comes as that is the day we get it.

My first desire of being a club member was when I read the story of "How Christmas Came to Coon Coulee" in Hoard's Dairyman about a year ago. Ever since I read that story I have become very much interested in club work. There are no 4-H clubs in my community but I have often wished there had been one at least. But I still own a calf. She is a pure-bred Holstein heifer three weeks old. I bought her from my father for $19.25. This money I saved up by trapping skunk and doing things of that kind.

I thank Hoard's Dairyman for the "Danny Dare" articles about curing and handling seed corn. I am trying out some of these methods and have already gotten several orders for seed corn.

We raised the White Cap corn this year, but last year we raised the Calico and Yellow Dent (one field of each). I can't tell which kind I like the best although the White Cap matured well this year.

I think I shall plant an acre of corn next year and try out many of the modern methods of raising corn.

We bought a new pure-bred bull last spring.

My brother and I together have 24 young ducks which we raised this summer. We are thinking about raising sheep next year.

I wish some of the juniors would write to me. I will try to answer every letter. My address is R. 1, Williamsburg, Pa.

Virgil Sollenberger.

Near the Aluminum City

Hoard's Dairyman Juniors:—I live on an 80-acre farm 16 miles south of Manitowoc, the aluminum center of the world, the name of our farm being "Meadow Lawn Stock Farm". Our house is located in the center of the farm. Right in front of our house was a lake in the early days, and last summer when it rained so heavily with cloudbursts and thunderstorms it was a lake again. In the spring when the snow melts there is a little lake also and we go skating when the water is frozen.

I do not belong to any calf club because there isn't any around here, but instead I take care of three calves which are my pets.

If any of the juniors want to write to me my address is R. 2, Box 16, Cleveland, Wis. I will answer all letters received.

Waldemar O. Freis.

Snowball Wins Third

Hoard's Dairyman Juniors:—At the farmers' picnic on August 14th I won second with my calf and expenses paid. At the New York fair I won third which was not so good. I also went on the judging team but did not get any farther.

Wanhasda Hengerveld Segis is the name of my calf. We all call her Snowball for she is so white. The only black she has is a little spot about as big as a 50-cent piece on her right hind hip.

Tell other juniors to write. My address is R. 1, Liverpool, N. Y.

Howard Murphy.

My Club Work

Hoard's Dairyman Juniors:—Boys and girls, I am a Wood County calf club member, I am proud to say. I have a nice yearling calf; it is a grade. She looks like a large fawn from a ways off. There have been many people here to look at her. And many who have wanted to buy her.

W. W. Clark, who used to be our county agent, offered me $50 for her and I would not take it so you can see by that she is a beauty.

I am a garden club member also. I had a real nice garden this smumer. I think it is fun to see things grow.

I am healthy and happy, living on the sand of Old Wisconsin. I am 15 years old and weigh 125 lbs. I love to go to school. I have also won prizes on my good drawings of maps and fruit pictures and on my good score of health. I am in 8th grade. I intend to be a school teacher. I am going to school in Wisconsin Rapids when I get through school here. I am trying to be a good calf club member and would like to have some of you other girls and boys write me a letter. Here is a poem I wrote:

Soybeans

Oh, soybeans are useful
  And always good and grand.
One never plants too many
  On the poor, old sandy land.

Oh, soybeans are better than your hay,
  They make the horses whinney and the donkeys bray,
They make the cow moo
  And the old hens lay.

Oh, soybeans are healthy now I will say,
  The farmers need not worry over a sick cow
  If they feed them every day.
Oh, they like them yes they like them,
  Now I will tell you that.
They keep the pigs and chickens
  And the cows and horses fat.

Oh, now my good farmer
  When in the spring you come to plant,
Plant some good soybeans on your old sandy farm
  And now I will tell you it will do more good than harm.

My address is R. 8, Wisconsin Rapids, Wis.

Flora Lee.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.



The rate for advertising in this department is 10 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 7c per word.

STOCK FOR SALE

I am offering my entire herd of Holsteins for sale. 15 cows, 1 two year old heifer and two year old bull. All freshen this fall and early winter. Will take $1,250.00 for herd. Peter Forceth, Waupaca, Wisconsin. 14-*

For Sale—Registered Holstein herd, 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

For Sale—My entire herd of 70 high grade Holsteins, own raising. Must sell at once. Bargain. Would exchange for high grade Guernseys T. B. tested. Am going in the bottle milk business. MEURER'S STOCK FARM, Genoa City, Wis. 20-*

Registered Holstein bulls and heifer calves. Homestead and Matador breeding, $30 and up. O'CONNOR BROS., Watertown, Wis. 21-6

Holstein Bull Calves from large dams. Cheap. Herd under federal supervision. FARMOSA FARMS, Garden City, Missouri. 21-4

Western Dairyman—for sale, one hundred seventy-five high grade Holstein cows and heifers. Seventy-five dollars carload lots. WILLIAMS BROS, Lamar, Colorado. 21-6

Registered Holsteins—Springing heifers and cows bred to thousand lb. Homestead sire. Accredited. WINCOWIS FARM, Neenah, Wis. 22-4

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

For Sale—Carload of Holstein springers from 3 to 6 years old. T. B. tested. E. E. LEWIS, R. 3, Racine, Wis. 23-4

Holstein Bull—Get pedigree. Three of his dams averaged 108 pounds milk 1 day. 40.48 pounds butter 7 days. $100. ROY HARRIMAN, Appleton, Wisconsin. 23-8

Registered Holstein bull calves $25. Heifer calves $50. JOHN ULRICH, Milltown, Wisconsin. 24-7

$40.00 will buy registered Ormsby calves, both sexes, 1100 lb. breeding. Best individuals. FRENCH BROS., Shipman, Ill. 23-2

$1,000 will buy five registered, six high grade Holstein cows. FARNERHOLM DAIRY, Colfax, Wisconsin. 23-2

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Young Guernsey Bulls, A. R. breeding. Federal accredited herd. MATH. MICHELS, Peebles, Wisconsin. 24-*

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

City View Farm offers for sale Guernseys, male and female, of all ages; May Rose Langwater breeding out of good A. R. dams Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 20-*

Write for sale list of 11 Registered Guernsey bulls, 2 to 12 months, 6 have dams and grandams with A. R. records averaging 732 pounds fat. Accredited herd. HOMER RUNDELL, Livingston, Wis. 22-*

Grade Guernseys—Tuberculin tested. Carload of springers for sale now. Select what you want from my herd. LEE BURLINGHAM, Dousman, Wisconsin. 20-spl

Guernseys For Sale—Seven registered cows, twelve high grade cows. Heavy producers due to freshen soon. Registered heifer calves. Registered herd sire. T. B. tested, free from disease. Priced low for quick sale. GUY ANDERSON, Ogdensburg, Wisconsin.

For Sale—23 2 year old Guernsey heifers, high grades $65.00 each. DUTTON & CORT, Galesville, Wisconsin. 24-3

For Sale—Ayrshire bred heifer and heifer calves. Also a young bull. Whitehall breeding. J. A. DALTON. R. 2, Oconomowoc, Wis. 24-2

Two Pure Bred Jersey Yearling bulls. Ready for service. Herd accredited. No abortion. RAVINE FARM, Highland Park, Ill. 23-3

Serviceable Jersey Bulls. Hood Farm Breeding. Record dams. $100. Accredited herd. RALPH CONSTANCE, Waupaca, Wisconsin. 21-4

STOCK WANTED

Wanted—Thirty high grade Guernseys, young and T. B. tested. State best cash price; must be a bargain. MEURER'S STOCK FARM Genoa City, Wisconsin. 20-*

Wanted—10 grade Guernseys fresh or close up. Must be accredited. ELM HURST FARM, Robbinsdale, Minnesota. 23-2

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hunting Hounds, Feeds, Medicines, Supplies. Catalogue. KENNEL JOURNAL, Herrick, Ill. 23-4

Scotch Collie Pups bred from real heeling stock. $5.00 each. Trained dogs eight months old, $15.00. S. C. BUSH, Maple Grove Farms, Pope Mills, New York. 23-4

Shepherd Pups—Spayed females intelligent heelers with nerve. Satisfaction guaranteed. $6.00. WILBUR DAY, Brighton, Iowa.

PRINTING

Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Hay, Straw and Alfalfa—Write us for prices. Consignments solicited. Prompt returns. Inquiries answered. J. A. BENSON CO., 332 S. La Salle St., Chicago. 12-spl

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 8-17

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

Alfalfa Hay For Sale—Write for delivered price, ALBERT MILLER & COMPANY., 192 No. Clark St., Chicago, Ill., or call our representative LaCrosse, Wisconsin. Telephone 851-A. 19-*

Choice baled alfalfa offered $19.00. FRANK THOMAS, Delavan, Wis. 23-2

First cutting baled alfalfa hay cured in cocks under cover in field. Price $20.00 per ton, F. O. B. Fort Atkinson. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 23-3

TOBACCO

Homespun Tobacco. Chewing, 5 lbs., $1.50; ten, $2.50. Smoking, 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and recipe free. FARMERS UNION, Paducah, Kentucky. 21-4

Tobacco—Three year old leaf. 8 lbs. chewing, $2.60; 8, smoking, $2.20; 8 second smoking, $1.40. Pay for tobacco and postage when received OLD HOMESPUN CO., Hawesville, Ky. 22-4

COMMENCING JANUARY 1, 1925, the rates for advertising on our Special Opportunities page will be as follows: Eight cents per word each issue for farm labor advertising and twelve cents per word for other classified advertising copy. Always count address. This small increase is necessary because of increased circulation and other publishing expenses.

SEEDS

Plant Hardy Wesodak Alfalfa. Be sure of three to four big yields of this great forage crop and soil builder by sowing S. D. No. 12 Registered Grimm and Cossack seed sold in sealed bags by this growers cooperative marketing organization. Write at once for samples and prices. WESTERN SOUTH DAKOTA ALFALFA SEED GROWERS' EXCHANGE, Dept. 1, Rapid City, South Dakota. 24-Spl.

Bargain Prices on 1923 Minnesota grown seed corn, grass seeds, seed grains. Write today. NORTH STAR FARM, Cokato, Minn. 23-4

Jacques' Seed Corn—North Wisconsin grown, field selected before killing frosts, thoroughly fire-dried, every bushel tested. 95-100% germination and strong vitality. 30 days' tiral, money-back guarantee. Golden Glow, Cold Resistant Golden Glow, Wisconsin No. 8, Rustler White Dent. Write for booklet. WM. H. JACQUES, Neilsville, Wis. 23-2

Molasses Feed. 16% protein high class, milk making feed. Put out by specialists in economical feeds. Also "Your Own Mix" molasses feed; mix it yourself. Buy right, buy in car lots at rock bottom. C. E. DINGWALL CO., Milwaukee, Wis. 24-4

Triangle—Pure Grimm and Cossack alfalfa seed, home grown. Hardy. Tested. Postcard brings samples, folder, full information. TRIANGLE RANCH, Cottonwood, South Dakota. 24-*

MINERAL FEEDS

All livestock need mineral matter. Kay's Mineral Feed, a supplement to the grain ration, builds bone and increases production. One hundred pound trial sack, $5.00. KAY MINERAL MILLS, Wauwatosa, Wisconsin. 15-10

Feed Powdered Limestone. High grade Waukesha Limestone. Ground to the fineness of flour, especially for feeding. Send $1.00 for two trial sacks. WAUKESHA LIME & STONE COMPANY, Waukesha, Wisconsin. 15-spl

Sota hog and stock mineral. One dollar per hundred. Dept. B. FOWLER & PAY, Mankato, Minnesota. 24-2

FEED BAGS

We are now paying higher prices for empty feed bags. Write for quotations. THE DAYTON BAG & BURLAP CO. Dayton, Ohio. 23-*

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

PATENTS

Patent-Sense—Free book for inventors seeking largest deserved profits. Write LACEY & LACEY, 753, F. St., Washington, D. C. Established 1869. 19-52

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—Three De Laval milker units, nearly new, good rubber. Bargain. WALCOWIS FARMS, LAKE GENEVA, Wis. 21-*

Wanted—Butter and cheese equipment. State price in first letter. E. G. LEWIS SEED CO., Media, Illinois. 23-2

Wanted—Creamery equipment for 35 to 50 cows. Give particulars in first letter. A. T. BAUMANN, Fallon, Nevada.

For Sale—De Laval clarifier No. 98, used short time. $175. Address BOX 388, Care Hoard's Dairyman.

FOR RENT

Dairy farm for Rent on shares. About 240 acres 120 under plow, balance pasture. Pasture situated on Rock River and is very good. Farm located on Rockton Road one mile south of Beloit. GEORGE W. SHAW, R 1, Beloit, Wis. 23-3

For Rent—Dairy farm, 432 acres. Located at city limits, Beloit, Wisconsin. DON VAN WART, Agent, Beloit, Wis. 21-4

Dairy farm 500 acres, about 100 acres alfalfa 2 sets modern buildings, near Syracuse and milk station, on shares to reliable party with equipment and capital. Privilege to buy at low price and easy terms. Owner W. W. PORTER, West Genesee Street, Syracuse, N. Y.

For Rent—On shares or cash, 170 acre farm, Elgin, Ill., good buildings, large silo, spring water, 35 Holstein cows. Require A 1 farmer, must have own help, horses and implements. Possessoin at once or March 1st. References. Address G. McNEIL, 251 E. Grand Ave. Chicago, Ill. 23-2

Rent on Shares—160 acres, modern buildings, 40 cows tractor. WERNER FARM, Kenosha, Wisconsin. 24-2

For Rent—A-1 stock and grain farm, 200 acres, with good buildings. 1½ miles north of Wheeling, Illinois. Rent $6.00 an acre. DAVID K. TONE, 1101 Otis Bldg., Chicago Ill. 24-*

CREAMERIES

For Sale—Creamery with store house and all supplies on hand for sale. Located in a good dairying locality. On main line of G. N. Ry. Good reasons for selling. Sealed bids are wanted. The bids must be accompanied by a certified check of not less than 25% of the bid. Bids must be in not later than 2.00 o'clock P. M. January 8, 1925, this being the date of opening bids. The board of directors reserve the right to accept or reject any and all bids. Address bids to WEST UNION CO-OP. CR'Y. ASS'N., West Union, Minnesota. 24-2

CHEESEMAKER

Wanted—A real cheese maker who can invest $2,000 in a $15,000.00. Good opportunity with a good salary attached. Write CHAMBER OF COMMERCE, Coffeyville, Kansas. 24-2

LIMESTONE

Ground Limestone for the soil, delivered prices. Dept. B. FOWLER & PAY, Mankato, Minn. 24-2

HONEY

Clover-Basswood Honey. New sixty gallon feed cooker. ELIAS FOX, Union Center, Wisconsin. 21-4

MISCELLANEOUS

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.06, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

Hunter-Trapper-Trader, an illustrated monthly full of hunting, trapping and fishing lore, written by the readers themselves. To introduce it, a regular 25 cent copy will be sent for only 10 cents, to cover mailing. Also three good outdoor books, "The Coonhound," "Wilderness Trapper" and "Cooning With 'Cooners," $1.00 each postpaid. HUNTER-TRADER-TRAPPER, Dept. 67 Columbus, Ohio, U. S. A.

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

Milkmen—Use Fiske's Loose Leaf Route Book. Write for description. P. BAKER FISKE, Attleboro, Massachusetts. 22-4

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

FARMS FOR SALE

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

Own a farm in Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 44 Northern Pacific Ry., St. Paul, Minn. 17-8

"Wisconsin Opportunities—Free Wisconsin bulletins. Soil climate, crops. IMMIGRATION DIVISION, Wisconsin Dept. of Agriculture, Capitol 25, Madison, Wisconsin." 19-8

Improved farm in Minnesota and North Dakota can be purchased on 34 years time on small cash payments by persons who have their own help, equipment and live stock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book desoriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Railway, St. Paul, Minn. 22-*

For Sale—Dairy farm, well equipped, metal silo, near market, milk selling 20 cents. Splendid climate. Costs nothing for valuable information. Aged owner. L. B. 394, Southern Pines, N. C. 23-4

Choice farm must be sold. Write FRANK THOMAS, Delavan, Wis. 23-2

Minnesota has unexcelled markets for all classes of agricultural and dairy products. Come to the sure-crop state where land is cheap. For free map and literature write OSCAR H. SMITH, Commissioner of Immigration, Dept. 676 State Capitol, St. Paul, Minn.

Wonderful Opportunity—This 75 acre farm located in the best farming section of Pennsylvania; 10 room brick dwelling, large bank barn, good set of outbuildings, 9 acres heavy timber, 6 meadow, with running stream, 10 wheat; chestnut and red shale soil; 4 good horses, 10 cows, 7 hogs, 200 chickens all machinery and farm implements, also crops at field and barns included. Price $11,000, half cash required. Apply HANS ENGER, Perkasie, Pa. 24-3

Florida Dairy Farm for Sale—240 acres close to Jacksonville, or I will sell cattle and equipment and rent the land. Milk sells at 42 cents gallon wholesale. Green pastures all year around. I must sell on account of age and other business. Come to beautiful Florida where the climate is delightful all year. A. GEITGEY, Glen Saint Mary, Florida.

WANTED TO RENT

Young Experienced farmer will purchase one-half interest in live stock and work a first class dairy farm on shares. Must be modern and at least 160 acres. Address BOX 384, Care Hoard's Dairyman.



Advertising in this department is 7c per word. Remit in advance.

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Position Wanted—Experienced dairy farm manager wants position on up-to-date dairy farm. Willing to take a real proposition on a profit sharing business. Thoroughly experienced in purchasing herds and erecting modern buildings. Now managing the largest dairy farm on eastern shore of Maryland producing certified milk. Address W. A. SIMPKINS, Salisbury, Maryland. 18-*

Wanted—Positions as herdsmen, farm assistants, dairymen, cow testing association men, orchard men, poultry men, by graduates of The National Farm School, Farm School, Pa. These young men have had practical experience in feeding, milking, handling horses, and tools, operating tractors, operating incubators and brooders, herd equipment and most ordinary farm machinery. 24-4

Position Wanted as farm foreman. Life experience on New York and Michigan dairy farms. Can give best reference. Address BOX 381, Care Hoard's Dairyman.

Position Wanted—Herdsman. Efficient fitter for production, show or sale. Experienced in A. R. O. work and practical farmer. Good, dependable Scotchman with best of references. Address BOX 385, Care Hoard's Dairyman.

Wanted—Position as test cow milker, or general milker where milking machine is used. Address BOX 386, Care Hoard's Dairyman.

Wanted—Year round dairy job. Prefer western coast. Give particulars. HENRY NEHER, Fonasket, Washington.

Position Wanted—test cow milker, milker, barn man. Experienced. Come at once. State wages, number cows to milk. Address BOX 387, Care Hoard's Dairyman. 24-2

Position Wanted by January 1 by single, middle aged Hollander as herdsman in good herd of Holsteins. Life time experience. State wages, etc., in first letter. CHAS. BROERSMA, Tony, Wis.

Position Wanted—On or after March 1 as manager or superintendent of a modern pure-bred dairy farm. Age 32, married, agricultural graduate. 10 years experienced with pure-bred dairy cattle. Thoroughly understand breeding, feeding, calf raising, records, dairy and farm machinery. References. Give full particulars. W. A. BILES, Columbia City, Indiana.

Wanted—Position as manager large stock farm. Wisconsin College training with 20 years practical experience with pure-bred stock and production of certified milk. Only a high standard agricultural enterprise considered. Married. Reference. Address BOX 383, Care Hoard's Dairyman. 24-*

HELP WANTED

Mail Service Employees Needed. For instructions write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 16-*

Firemen, Brakemen, for railroads nearest their home—everywhere; beginners $150—$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5 Brooklyn, N. Y. 21-*

Wanted—First class milker on an up-to-date dairy farm, either married or single. Apply Chas. J. Maurer Supt., GRAPE WILD FARM, Escalon, Calif. 23-*

Wanted at once, man who can milk 20 head of cows. Wages $60.00 and board. QUINCY JERSEY LIVE STOCK CO., Y. B. Luchsinger, Mgr., Quincy Florida. 23-*

Wanted—Married man, middle age, with help, experienced in dairy and farming. Good opportunity for right man. Ayrshire cattle. AYRSHIRE BREEDERS & DAIRY CORP., Freeland, Pa. 23-*

Housekeeper Wanted on farm. References exchanged JAMES ROCKWELL, Delavan, Wis.

Wanted—Single bottle-house man. Experienced and hard worker. Good wages. Address BOX 382, Care Hoard's Dairyman.

Wanted—Experienced single man to take care of large herd of Holsteins near Chicago, Ill. Must be good worker and clean milker, and steady. State wages and age. Address BOX 389, Care Hoard's Dairyman.

Couple age 20 to 35 preferred. Man, qualifications dry hand milker, neat appearance, honest. Duties principally milking and delivering route about 120 quarts. Wife, assist house. State wages expected BOX 73, Ontonagon, Mich. 24-*

Make Good Records

Raymondale Queen Pietje Echo, a 4-year-old, just completed a year record of 25,668.4 lbs. milk, 956 lbs. butterfat (1195.02 lbs. butter), which makes her the highest yearly record daughter of Avon Pontiac Echo.

Lynn River Sylvia Nina, another daughter of this sire, has, according to Supt. Gardner of the Advanced Registry office, produced 21,466.9 lbs. milk 912.88 lbs. butterfat (1141.1 lbs. butter) in a year.

Both cows are owned by the Carnation Stock Farms.

The Tree

I think that I shall never see
A poem lovely as a tree.

A tree whose hungry mouth is prest
Against the earth's sweet flowing breast.

A tree that looks at God all day
And lifts her leafy arms to pray.

A tree that may in summer wear
A nest of robins in her hair;

Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me,
But only God can make a tree.

—JOYCE KILMER.

Jefferson County Holstein Meeting

The annual meeting of the Jefferson County, Wis., Holstein-Friesian Breeders' Association was held at the Court House, Jefferson, Wis., December 9.

J. C. Cort was re-elected president for the coming year. Henry Anthes was re-elected vice-president. The secretary-treasurer and executive committee will be chosen at the next directors' meeting Dec. 15.

The following men were elected to fill the vacancies on the board of directors, for three years: Henry Anthes, Aaron Keuler, Fred Gurr, and Theo. Ward.

L. L. Oldham, secretary of the State Holstein Association, addressed the meeting. Mr. Oldham discussed the marketing of white nectar milk and the value of the County Holstein Association to the grade breeders.

The secretary's annual report was read and accepted.

The remainder of the meeting was taken up with discussion regarding T. B. area test, cow testing association work, the sale of cattle, and other matters of local interest.

A rising vote of thanks was given the Farmers' & Merchants' Bank for the financing of the show herd this fall.

California Holstein Produces 1,000 Lbs. Fat

Zampa Aurelia Segis Pontiac is the latest pure-bred Holstein-Friesian cow to produce over 1,000 lbs. butterfat in one year, according to the Advanced Registry Department of the Holstein-Friesian Association of America. In the herd of J. L. Sebastian, California, this cow freshened as a six-year-old and recently completed a 365-day semi-official test period under the supervision of the California College of Agriculture with a record of 29,303.7 lbs. milk containing 1,050.35 lbs. fat, equivalent to 1,312.9 lbs. butter. In addition to her yearly record, she holds three seven-day strictly official records each over 30 lbs. butter.

The conditions under which Zampa Aurelia Segis Pontiac's record was made were similar in every respect to those which obtain on the average California dairy farm with the exception that this cow was milked four times a day. She ran with the rest of the Sebastian herd out of doors most of the year, thus receiving adequate exercise and considerable sunshine and fresh water at all times. Her feed program was also identical with that of other cows in the herd. The ration was made up of rolled barley, bran, cocoanut meal, beet pulp, a little linseed meal, and all the alfalfa hay she would consume.—Extension Dept., Holstein-Friesian Association of America.

Missouri Ton Litter Club

Pure-bred hogs registered almost a 100 per cent victory in the first ton litter contest held in Missouri which resulted in 27 litters raised to reach a weight of 2,000 pounds or over in 180 days. Every litter that made the ton-mark was sired by a pure-bred boar and 25 of the 27 litters were out of recorded sows of their respective breeds. The remaining two litters were out of high grade sows regarded as pure-bred for all practical purposes. Not one strictly grade litter attained the qualifying weight.

Sixteen counties reported one or more ton litters with the state championship going to Buchanan County on a litter of 12 pure-bred Durocs that put on 2,816 pounds in 180 days. The average weight per litter was 2,250 pounds. There were 282 pigs in the 27 litters which is an average of 10.4 pigs raised per sow.

The project was under the supervision of Prof. John W. Burch, Missouri College of Agriculture, who in commenting on the results says: "The weights are not unusually high but what I am particularly well pleased with is the fact that in every case good, practical farm feeds were used. So far as I know every one of these litters would make good money if sold at pork prices. The basis of most of the rations has been corn, shorts, and tankage, and milk in some cases. For the most part, the cost per hundred pounds in producing the litters has run from six to seven dollars. The champion litter was raised for about five dollars per hundred weight".—National Duroc Association.

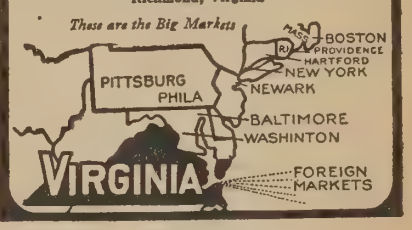
Raleigh's Irma Oxford, a Jersey cow, owned by R. C. Tway of Kentucky, has completed such a creditable record that she has quite altered the appearance of the junior three-year-old Jersey record for Kentucky, for in 365 days she produced 663.74 lbs. fat and 14,057 lbs. milk.—American Jersey Cattle Club.

Almost any one claims "the best", but the man with the real thing can prove it. Why, oh, why, doesn't he do it?—Knowledge.

LOCATE IN VIRGINIA
Close to Big Markets

The price of land in Virginia is lower and the market price of crops is much higher. Virginia Lands valued at 40% less per acre produce crops worth 62% more than average for the United States, as shown by the statistical records. You can buy Virginia Land at 30% to 40% lower price per acre and receive practically 62% more net money for your crops. On account of Virginia being closer to big Eastern Markets better prices are secured, less freight. For instance, when the price of Corn in Virginia was $1.00 per bushel it was 59 cents to 68 cents per bushel in Western States, and the same is true in comparison of all crops. The average yield per acre in Virginia, with proper cultivation, is practically that of the Western States. In Virginia you can grow all Grains, Grass, Fruits, Poultry, Live Stock, Etc. Mild winters, healthy climate. Why not better your condition by locating in this favored section. Write for Hand Book, Maps, etc.

G.W.KOINER, State Commissioner of Agriculture
Richmond, Virginia



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This one quality alone makes our Scotch Collies rare bargains. They're gentle, fearless, devoted. Have every quality a dog should have--intelligence, courage, strength. Fine shepherds, unsurpassed as watchdogs. Indefatigable enemies of vermin. They are the "Aces" of all dog-dom. Satisfaction guaranteed. Pairs not akin. Get our special bargain lists now.
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Dispersal Sales of High Class Guernseys

Sale Pavilion

Fond du Lac, Wis., January 7th and 8th, 1925

On JANUARY 7

I will Offer For Sale the Entire Herd of A. C. Loring, Woodend Farm, Mound, Minn., consisting of

40 FEMALES - 10 BULLS

Every animal on the farm except two old unsound cows.

Sixteen high class A. R. cows with records up to 642 lbs. fat in Class G, and their progeny by High class May Rose and Valentine bulls. No expense has been spared to keep this one of the choice herds of the breed.

On JANUARY 8

The Entire Herd of R. K. McDonald, Stevens Point, Wisconsin, consisting of

33 FEMALES - 3 BULLS

There are 13 cows, several of them with good A. R. records and 20 heifers out of these cows and sire by Cora's Cherub of Shorewood a son of the great Ladysmith's Cherub and out of Cora of Gerar 734.54 lbs. fat in Class AA. This bull's first three daughters to be tested average 616.32 lbs. fat all in Class G. One of them sold at the 1924 National sale for $2,700.

These are two splendid lots of cattle and poor ones have all been sold from both herds during the past year.

Remember the time and place -- Fond du Lac, Wis., Jan. 7 and 8, 1925

For catalogs address CHAS. L. HILL, Sale Manager ROSENDALE, WISCONSIN

Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Ill.	McHenry Co.	Nov.	R. H.	70.3	F. M. Barber
Minn.	So. Dodge Co.	"		67.3	R. Klingbeil
Minn.	So. Dak. Co.	"	G. H.	74.4	Thompson & Knapp
Ind.	Spencer-Perry	"	G. H.	57.4	Pattie & Adres
"	Culver	"	R. H.	69.6	J. F. Frain
"	Elkhart	"	R. H.	66.5	R. Wenger
"	Clark—Scott	"	J. G.	60.6	H. Atcheson
Md.	Baltimore Co.	"	R. H.	69.3	Dr. Sherman-tine
"	Upper Montgomery	"	R. H	71.7	Mr. Lambert
Mass.	No. C. Berk.	Oct.	R. G.	75.2	Highlawn F'm.
Va.	Loudoun Co.	"	R. G.	77.3	L. C. Hoge
Wash.	King Co.	Nov.	J.	69.4	J. Brown
Utah	Rich.-Lewis-	"	R. H.	61.3	D. D. Buttars
Ore.	Tillamook 3	"	G. H.	44.3	J. Fleck
Va.	Henrico	"	G. G.	77.0	J. C. McKesson
Nebr.	Douglas Co.	"	G. H.	63.9	Edgewater Farm
N. D.	Flasher Hol.	"	G. H.	46.4	J. W. Cotner
"	Mandan H. & S.	"	G. H.	54.6	State Training School
Ia.	Hancock 1	"	G. H.	56.2	A. D. Christenson
"	Sac Co.	"	G. G.	48.7	H. Pitstick
Ill.	McLean Co. D. I.	"	G. G.	68.3	W. Welch
Mich.	Berrien Co.	"	R. H.	61.0	M. C. Hampton
"	W. Antrim	"	G. H.	61.2	M. A. Beckwith
"	W. Allegan	"	G. H.	68.5	G. Marshall
"	Newaygo 1	"	R. H.	88.9	G. Meeuwenberg
"	Rives-Jack.	"	G. H.	67.5	W. Clarke
"	N. Dakota Co.	"	G. J.	40.7	O. S. Stromquist
"	Alp.-Leer	"	R. H.	61.1	N. Hobbs
"	E. Montcalm	"	G. H.	49.0	B. A. Eldridge
"	Remus	"	G. G.	69.0	G. Holcomb
"	N. Gratiot	"	G. H.	62.8	J. McJilton
Wis.	Farmington	"	G. H.	52.3	W. Gochring
"	Dodgeville	"	G. J.	59.2	H. Prideaux
"	Spr. Valley	"	R. J.	60.5	M. Mathison
"	Allen.-Kohls	"	R. H.	56.6	W. Pamperin
"	New Lisbon	"	R. H.	52.4	W. Hagestad
"	Byron	"	R. H.	80.5	E. M. Cowles
"	Foot.-Evans.	"	G. H.	57.3	O. Stauffacher
"	Waupun-Lad.	"		53.6	Wis. State Prison
"	Mon.-Gil.-Modena	"	G. H.	73.8	Ayres & Brown
"	Stratford	"	G. H.	54.7	G. H. Butzke
"	Marion	"	R. H.	70.5	J. H. Driessen
"	Ham.-Baldwin	"	G. G.	66.3	B. Holman
"	Iola	"	G. G.	54.2	A. A. Tweton

Association Notes by Testers

McHenry Co., Ill.: Ray Nolan recently bought the pure-bred Holstein bull, Acme Tomah Jalmar De Kol. Wm. Wittmus has the distinction of having entered the first cow in the Illinois 500-lb. fat cow club. Twenty-nine cows are already enrolled from this county to start their records on Jaunary 1 on seven-day A. R. O. work. A. D. Cornue had three cows above 500 lbs. milk and 25 lbs. butter. In November market milk sold for $2.40 per cwt. and retailed for 12 cents per quart.—B. McClellan.

Southern Dodge Co., Minn.: Last month 263 cows were tested which averaged 580.7 lbs. milk and 22.96 lbs. fat. There was considerable competition this month regarding the high herd. R. A. Klingbeil's herd of Holsteins took first place with an average of 952.6 lbs. milk and 40.03 lbs. fat. Hans Peterson's herd of Guernseys followed a close second, averaging 841.0 lbs. milk, 39.91 lbs. fat. Chris Ditlevson's herd was a close third, averaging 1,217.0 lbs. milk, 39.77 lbs. fat.—B. Gochnauer.

South Dakota Co., Minn.: Each member feeds a balanced ration. A carload of gluten meal and molasses was purchased by members. This association reorganized with twelve members beginning their third year, twenty their second year, and ten new members.—F. R. Lee.

Culver, Ind.: Menser Holstein Farms purchased a pure-bred bull whose dam produced 23,000 lbs. milk in a year. This month's work ends the association year. Next year there will be two associations in this same territory, North Marshall and Culver. Last month market milk sold for $2.20 per cwt. The creamery paid 37 cents per pound for fat. Milk retailed for 10 cents per quart, butter 42 cents per pound.—W. R. Matthews.

Upper Montgomery, Md.: Last month 126 cows produced over 1,000 lbs. milk and 40 lbs. fat. A number of farmers are increasing the size of their herds. Market milk sold for $2.96 per cwt. and retailed for 15 cents per quart, butter 45 cents per pound.—M. C. Donnell.

North Central Berkshire, Mass.: October's work finished the association year. A grade Holstein owned by Westenboh Farm of Massachusetts finished the year with 13,714 lbs. milk and 600.4 lbs. fat to her credit. Canary, a registered Holstein owned by Carpenter Bros of New York, finished the year with 15,128 lbs. milk and 505.3 lbs. fat.—T. H. Weed.

King Co., Wash.: The price of fluid market milk going into Seattle raised twenty cents per hundred pounds the 16th of November. The price was raised one cent per quart to the consumer also at this time. Feed prices continue to remain at a very high level. In November market milk sold for $2.05 per cwt. The condensery, cheese factory, and creamery each paid $1.85 per cwt. for 3.8 per cent milk.—H. Dempsey.

Richmond—Lewiston, Utah: Two good cows were sold, their records demanding about $25 per head more. Webb Bros. moved their herd of 30 cows and heifers into their new barn which has just been completed. It is equipped with cement floors and mangers, steel stanchions, a large feed room, and sixty-ton hay capacity, and electric lights. One member installed a milking machine.—L. Nelson.

Tillamook No. 3, Ore.: Not much grain is being fed now on account of high prices of grain. Most of the cows are dry this time of the year. Last month the cheese factory paid $2.12 per cwt. for milk. Milk retailed for ten cents per quart, butter 50 cents per pound.—H. S. Smith.

Henrico, Va.: One member installed drinking cups with automatic electric pump. November started the new year with five new members. There are 225 cows more on test than in November a year ago, but the average milk production is 60 lbs. less due to the lack of fall grazing. Last month milk sold for $4.71 per cwt.—S. Simpson.

Douglas Co., Nebr.: Of the 372 cows tested during November, 32 produced over 40 lbs. fat, five over 50, and three over 60. Market milk sold for $2.35 per cwt. and retailed for 11 cents per quart, butter 43 cents per pound.—J. T. Pierson.

Hancock Co. No. 1, Iowa: The separator loss for November was $12.46 against $54 for July, the first month of the association year. One reactor was found. Two barns were whitewashed. The creamery paid 39 to 43 cents per pound for fat last month. Milk retailed for ten cents per quart, butter 45 cents per pound.—H. W. Tiggeman.

Berrien Co., Mich.: A more optimistic view prevails among the men who milk cows as a result of the rise in price of butterfat. All members use pure-bred bulls and have their herds T. B. tested. Last month market milk sold for $2.12 per cwt. and retailed for 12 cents per quart.—P. L. Hemingway.

West Antrim, Mich.: The high herd for November was owned by Wm. Selkirk which averaged 533 lbs. milk and 25.1 lbs. fat per cow—V. Stoops.

Newaygo No. 1, Mich.: Three members installed Jamesway equipment in their barns. Seven separators were tested and six found O. K. Garret Meeuwenberg's pure-bred Holstein just finished a record of 15,685 lbs. milk, 624.4 lbs. fat. Last month milk sold for $3 per cwt. and retailed for 12 cents per quart, butter 50 cents per pound. The creamery paid 43 cents per pound for fat.—M. Johnson.

Remus, Mich.: One incident of importance for November was when two herds consisting of fifty head underwent the tuberculin test and came through clean. The creamery paid 41 cents per pound for fat.—N. S. Smith.

North Gratiot, Mich.: Of the 193 cows tested last month 14 made 40 lbs. fat and ten above 50. A herd of six grade Jerseys led the association with an average of 41.7 lbs. fat. One member is remodeling his barn, putting in drinking cups, milking machine, and litter carrier. Market milk sold for $2.50 per cwt. and retailed for 12 cents per quart. The creamery paid 47 cents per pound for fat.—C. H. Blivin.

Farmington, Wis.: This association has 12 Federal Accredited herds and 11 under supervision. Eleven reactors were found last month. Dr. Pynn reports less than one-half of one per cent tuberculosis in the herds he has tested in Washington County. The condensery, cheese factory, and creamery all paid 48 cents per pound for fat last month. Milk retailed from 8 to 10 cents per quart, butter 60 cents per pound.—J. G. Strathearn.

Dodgeville, Wis.: One barn is being remodeled and improved. Three member's herds passed clean T. B. tests. The creamery paid 42 cents per pound for fat last month.—R. Heitz.

Allenton—Kohlsville, Wis.: Most members feed minerals to supplement mineral losses from leaching of alfalfa. Several barns were whitewashed before stock was put in for winter quarters. The entire association has now been placed on the accredited list with but eight reactors after the federal test of about 250 head. The condensery paid $1.92 per cwt. for milk last month. Milk retailed for 10 cents per quart, butter 52 cents per pound.—V. M. Anderson.

New Lisbon, Wis.: This association was organized last month and consists of 26 members. Two hundred sixty-one cows were tested; two bad separators were corrected; two new milk houses were built; and eleven members do their farm work with tractors. The creamery paid 41 cents for fat.—W. J. Willer.

Byron, Wis.: At the annual meeting of this association it was decided that hereafter high cows will be graded in two classes. The first class will consist of two- and three-year-old cows and the second class to contain all cows that are older.—R. G. Thurman.

Waupun—Ladoga, Wis.: Edgar Hazen's herd of nine Holsteins heads this association for November with an average production of 1,043.3 lbs. milk containing 31.36 lbs. fat. Of the 413 cows tested, 13 produced over 40 lbs. fat.—A. Williams.

Mondovi — Gilmanton — Modena, Wis.: Two members who built silos this fall are now feeding silage from them. One of these men remarked: "I can't understand how I did any dairying before. I can now produce more fat with less expense." One of these same men installed watering cups which increasd the yield of milk approximately 200 lbs. per cow. The creamery paid 42 cents per pound for fat last month.—W. E. Acker.

Hammond—Baldwin, Wis.: Eighteen members feed clover hay and all feed some grain. Very little corn is being fed. Silage is in good condition. Last month the creamery paid 45 cents per pound for fat. Milk retailed for 8 cents per quart, butter 41 cents per pound.—O. Berkseth.

McLean Co. D. I., Ill.: Several members installed drinking cups in their barns. One member grinds alfalfa hay and oats together to mix with his corn and cob meal and other feed which he finds very satisfactory. Last month milk retailed for 14 cents per quart, butter 50—55 cents per pound.—H. R. Fletcher.

A High Western Cow

HOARD'S DAIRYMAN:—Linden Clara Pasma, a pure-bred Holstein, owned by Henry Bouchard, completed a year's record in the Lewis County, Washington, Cow Testing Association, making 24,603 lbs. milk and 849.40 lbs. fat at 8 years of age. She was sired by Sir Model Mutual 132204. Sadie Fayne Cornucopia 179574 was her dam. She freshened April 6, 1923, and on two-time milking made this wonderful record in



Linden Clara Pasma has a year's record of 849.4 lbs. fat in the Lewis County, Washington, Association. She is owned by Henry Bouchard.

365 days. She carried a calf for 164 days of this period.

The feed consumed during the year is as follows: 8 months' pasture, 2,700 lbs. of beets, 5,850 lbs. of hay, 7,640 lbs. of grain.

The cost of roughage was $84.75 and the grain cost was $117.20, making the total cost of feed $201.95. The value of her product was $552.95. This leaves a profit above the cost of feed of $351.

She also has a 6-year-old record of 14,762 lbs. milk and 518.7 lbs. fat in ten months. At the present time she is on test again, and on her best day made 105.6 lbs. milk. For the month of August (30 days) she made 2,883.5 lbs. milk and 105 lbs. fat on four times a day milking.

Mr. Bouchard paid $1,000 for his sire, Friend Pontiac Hartog De Kol 244125. Using these individuals as a foundation he hopes to concentrate the blood of Linden Clara Pasma in his herd by close breeding and selection. The calves that have been dropped as a result of this breeding show extreme length of body as well as depth. They are all big stretchy calves with straight top lines, combined with good quality and refinement. This experiment will be well worth watching.

Washington. R. M. KNOX, Tester.

From Houston, Minnesota

The Houston association finished its second year's work October 31st. Of the 420 cows tested, 104 produced a pound or more of fat a day and 12 produced 500 lbs. fat or more. The high cow for the year is a grade Guernsey with a production of 11,640 lbs. milk, 601.5 lbs. fat. Her feed cost $64.50; profit, $233.75 over cost of feed. She is owned by Peter A. Berg, who also owns the high herd for the year, 10 grade Guernseys, which produced an average of 8,600 lbs. milk, 437.93 lbs. fat; cost of feed, $49.16; profit over cost of feed, $158.67. Ten herds fed silage averaged 355.54 lbs. fat. Six herds not fed silage averaged 292.78 lbs. fat. Three herds fed grain averaged 378.02 lbs. fat. Ten herds not fed grain in the summer averaged 342.25 lbs. fat. The association average for 420 cows is 7,170 lbs. milk, 311.64 lbs. fat; average feed cost, $43.80; gain over cost of feed, $102.84. Herds are all headed with pure-bred sires.—H. S. White.

POULTRY On The DAIRY FARM



The Poultry Feed Problem

Shall we buy ready mixed feeds or mix home rations according to the agricultural college directions?

The important point in our discussion of the poultry feed problem is the fact that hens have a balanced ration in order to lay for profit. The average farm hen lays only 70 eggs per year. One hundred eggs per year are required for the expense incurred in feeding the hen and 150 eggs per year are required if there is to be any profit resulting. Since we are all interested in profit, let's consider the poultry feeding problem from the profit standpoint.

Ready Mixed Feeds

Ready mixed feeds are feeds which are properly proportioned, balanced, and mixed at the mills, and then sold by the feed manufacturers with a guarantee that if they are fed according to directions the hen will lay a great number of eggs—150 or more per year.

Whether or not to use ready mixed feeds is determined by price, time available on farm, reliable reputation of company, results gotten from feed.

Home Mixed Feeds

Home mixed poultry feeds are combinations of various grains in such proportions that by feeding them to the hen she can use them to the best advantage and lay 150 eggs per year or more.

Whether or not to use home mixed feeds is determined by feed available, time and labor and equipment required for weighing and mixing, knowledge of the feeding subject, cost of mixing plus cost of feeds used compared with price of commercial ready mixed feed, desirability of changing the proportion or kind of feed in the ration occasionally, results gotten from the feed.

Mixing Feeds on the Farm

Since the farmer on the average farm is kept very busy with the cows and other live stock, the poultry is neglected in many cases. Poultry can stand a great deal of neglect providing they are given something to eat, at least. They require proportionately less attention than any other kind of animal. If we will but give them plenty of a variety of feed in proper proportion we can get fairly good egg production without much extra attention. It is quite easy to bring home a sack or two of ready mixed feed from town and the use of this overcomes many of the difficulties which are common on our farms today.

If we are too busy to spare the time to prepare properly mixed feed for our fowls, then it is far more satisfactory to pay a slightly greater price in case the price is higher and thereby increase the egg production of our poultry. The various facts before stated should be thoroughly considered in this feeding question.

Commercial Feeds

The importance of the manufacturers of commercial feed is under-estimated by most people, farmers included. Many of our feed manufacturers have established a separate poultry feed department. Thousands of dollars are spent in investigation and experiments are run with poultry on experimental farms established by the companies. Some of the highest salaried poultry students in our country are hired by these poultry feed manufacturers. They have done perhaps as much for the advancement of the poultry industry as any other single agency in the country.

Although the poultry feed manufacturers are in business to advance their financial interests, they nevertheless have put forth a just effort and have offered to the poultry keeper a proportional amount of knowledge so that we can truly class them as desirable people who are advancing poultry interests.

In working out proper combinations of feeds, these manufacturers have made many important discoveries. Our rations are undoubtedly more satisfactory now than they were years ago. The average egg production of the country has been increased tremendously and the manufacturers of poultry feeds are due considerable credit for these advances.

Give Credit Unto Whom Credit is Due

In writing of the poultry feed manufacturers the writer desires to assure the reader that his purpose is only to give fair consideration to the poultry feed people. In the early days much antagonism was evident and now days some people still can see no good in their work. The money these people have spent for advertising has served to increase the amount of knowledge which our magazines can publish for the benefit of the readers.

In developing their feeds they have not had an easy time of it. Competition is keen among them which automatically makes for a fair price in mixed feeds.

The Point of the Story

We must feed our poultry better. Our extension workers, our magazines, and poultrymen in general agree on this point. The point of our story then is to inform the reader of the manner in which this can be accomplished.

If you have a good variety of feeds on the farm and have the time to mix them, you may save some money by mixing your poultry feed at home. If you have the facilities and the time, the following mixture gives excellent results:—For a mixture of ground feed to be fed in the mash hopper, mix the following: 100 lbs. ground corn, 100 lbs. ground oats, 100 lbs. wheat bran, 100 lbs. wheat middlings, 100 lbs. meat meal or meat scraps.

Where plenty of skimmilk is available, only 50 lbs. of meat meal or meat scraps need be mixed in this mixture.

Scratch Mixture: 200 lbs. corn, 100 lbs. oats, 100 lbs. wheat.

The mixture is very popular with farmers since corn and oats are common feeds on every farm and most farmers buy bran and middlings anyhow. The meat meal or tankage is necessary for egg production and can be purchased from your feed store or directly from the packing plant. The meat scrap or meat meal improves the palatability and digestibility of the mixture as a whole and also provides the nutrients necessary for maintaining the body and for material in the egg.

The mash is fed in open hoppers from which the hens can eat at any time, while one-third of the scratch grain is fed in the morning and two-thirds at four o'clock in the afternoon. Some of the mash fed, not wet but crumbly, at noon will serve to increase the amount of mash which the birds will eat.

This then is the home mixed side of the poultry feed problem.

The Other Point

If you cannot mix your poultry feed on the farm, the next best thing is to try some ready mixed feed which you can buy at any feed store or grocery store. The manufacturer has tried out his feed with chickens on his own experimental farm. In feeding ready mixed feeds, one must follow very closely the directions of the manufacturer, since he alone knows the proper method of feeding the particular combination of feeds which he may have. If his directions are carefully followed there can be no doubt as to the results. Ready mixed feeds are beyond the experimental stage. They are now absolutely dependable as is shown by the large number of commercial poultrymen who are feeding them.

With the advancement in poultry feeding and with the use of good and proper feeds, there is no excuse for having a flock of unproductive poultry.

If you cannot mix your poultry feed on your farm, then feed ready mixed feeds and give the manufacturers a chance to prove that their feeds are made to produce eggs.

O. A. HANKE.

Straw Pack House

I want to build a new hen house with a hay mow so as to have wheat hay, alfalfa, and clover for hens. I want to shed it off for glass windows in roof.

Now let me have the experience of your readers that such houses are a success. What have the owners to say?

Iowa. J. E. COLEMAN.

The idea of the straw pack house is mighty commendable but I doubt very much the feasibility of storing wheat hay, alfalfa, or clover in the upper section for use of the birds during the winter. This material is placed there primarily with the idea of being an insulating material to maintain the warmth in the house, prevent sudden change in temperature and act as a pack between the birds themselves and the frost which will collect on the roof boards of a shed roof house. In most of the cases where I have seen, with the straw pack and doors at either end, there has not been any accumulation of moisture; in fact, in none of the cases that I have seen has there been an accumulation of moisture in this straw and it has apparently remained perfectly dry. Where the pack is used up over the roosts without any ventilation arrangement along the roof boards, there has, of course been moisture. For a really successful building, one would obtain better results by using the pack of straw, and then throwing the alfalfa or clover or other material as this that you want to use for the hens in some other building where the leafy parts particularly can be carried in to the hens as needed.

There has been some attempt made to use glass windows in the roof, but there is really no practical reason for spending this effort. With an eight-foot front elevation on a 20-foot house one can get the light back into the building as far as is necessary and it overcomes the rather expensive experiment of attempting to design windows in the roof that will not allow water, rain, or snow to seep through. In the second place, the windows when placed there are just about useless during the winter as they are covered with snow a considerable portion of the time and will not allow any considerable amount of light to penetrate into the building. In overcoming the disadvantage of an uneven distribution of litter on the floor, a person can arrange the double sash windows on the north side of the building below the dropping boards. This allows light to enter from both the north and the south and will in this way distribute the litter in the middle of the house rather than piling it up under the dropping boards as will always be found with light supply on just one side.

It would be mighty interesting to hear remarks from others who have used this glass roof house, and the results that they have had. There are some few that I have seen, but personally I am not enthusiastic about them, nor can I see any practical reason for this arrangement. J. B. HAYES.

Dry Mash for Egg Production

In your issue of Oct. 10 we read, "Working for economical egg production without a dry mash constantly before the flock is like trying to run an auto without gas. Not much success will be attained in either instance. That point is illustrated daily at this season in the culling of farm flocks." May I ask how this is illustrated in culling?

Mocksville, N. C. J. D. W.

The point made in connection with the statement in regard to working for economical egg production without dry mash before the hens is that in flocks fed the dry mash, the production is held up for a longer time through the feed and as early a molt is not noted in the flocks that are mash fed as in those where the mash has been removed from the entire flock during the summer.

In two flocks of single comb Anconas that were handled on two successive days that were of about the same line of breeding, the contrast was very striking. In the first instance, the man had a flock of about 180 hens and about 12 birds in that flock were laying at that particular time. He was one of the parties who thought it was economy to remove the dry mash from them in order to save on feed cost.

The second day, another flock of about 160 birds was handled in which the man was getting about a 51 per cent production and there were not over 12 birds in the flock that one would ordinarily remove as poor producers.

It has been amply demonstrated that mash feeding has an immediate effect upon the condition of the birds, and a change from mash feeding to no mash feeding will throw the flock into a molt and consequently throw them out of laying condition. In another instance, the people insisted they were feeding a dry mash, but the dry mash consisted of ground corn and ground oats without any animal protein feed. In so far as results were concerned, they might just as well have saved on the mixture they were giving them and fed all of the material as a scratch feed and removed the hopper until they were willing to add the animal protein to it.

J. B. HAYES.

Caution

Old Woman (to engineer): Do ye think there'll be a collision today?

Engineer: I hope not. What makes you ask?

Old Woman: Well, ye see, I'm taking a basketful of eggs to town, an' I don't want 'em broken.—The Progressive Grocer.

Dan Smith says its a good thing hens don't know what masons get for laying bricks.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Precocious Lactation

Last summer we noticed in a stock yards paper the report of a new born filly foal yielding 3 pints of milk a day and this was announced as a hitherto unparalleled freak of nature. While the amount of milk mentioned is unusally large it is not true that such precocious lactation is unique in a foal for there are many instances of the sort on record. A mule filly has ever been known to have milk in its udder just after birth and we have read of a mare that had never been pregnant nursing an orphan foal when she was 20 years old. Another case is on record of a filly giving 2 pints of milk a day, a few days after birth. In such cases the milk secretion soon stops, unless it is purposely encouraged by regular milking. In one case, however, a filly continued to yield milk for 23 days.

We have been asked if this phenomenon may also be seen in the new born heifer calf and have to report that we have never seen it occur, nor has a case of the sort been reported, so far as we are aware. If any reader has one to report we should like to hear from him. It is quite common, however, for milk to be secreted in considerable quantities by the udder of an unbred heifer calf when secretion has been stimulated by other calves sucking the teats. We have seen many cases of that kind and so, we feel sure, have many of our readers. It is also quite possible to stimulate secretion of milk in the udder of an unbred heifer by hand milking and that has been practiced in regard to milk goats in some countries. There are even records on file of milk being produced by the rudimentary udder of a male goat. One gave 8 ounces a day; another about three-quarters of a pint.

The most important matter in this connection is to know that the precocious secretion of milk in a young heifer calf's udder is dangerous in that it may end in garget, or so injure the udder or cause germ infection that garget ensues when the heifer calves for the first time. Many instances of this kind have been reported. Enough of them are on record to make it certain that the sucking of one another's teats by young calves is a most dangerous practice and to be stopped instantly when noticed, else garget at "freshening" may be the result.

It has been found by experience that when calves are stanchioned at milk feeding time and are fed some dry meal from the pail after the milk has been taken, they will be far less likely to suck one another's teats. Stanchioning and meal feeding should therefore be made the general practice and the calves should not be liberated until the milk has dried on their muzzles or they have forgotten, for the moment, the taste of the milk. The plan suggested is better than that of smearing bad-smelling or tasting substances upon the udder and teats of young calves. Myrrh and aloes have been used for the purpose and prove fairly effective. The spiked halter, sometimes applied, is an abomination and dangerous. Separation of calves is advisable. When milk has formed it should be dried off quickly, a mixture of 1 dram each of fluid extract of poke root and belladonna leaves per ounce of camphorated oil, also to be rubbed in daily, provided the calves can be stanchioned to prevent the belladonna from being licked off, as it is poisonous.

Preventing Abortion

We shall appreciate it if you advise if there is anything that can be done to prevent abortion.

West Virginia. Q. D. Co.

This subject has been thoroughly discussed in many articles in back numbers of the paper which should be studied. Also obtain bulletins on the subject from the U. S. Department of Agriculture, Washington, D. C., and the agricultural experiment stations of your own state; Wisconsin at Madison; and Missouri at Columbia. Meanwhile isolate affected cows and those that have retained afterbirths and have them treated by the local graduate veterinarian who should also direct you how to cleanse, disinfect, and whitewash the stables, including the floors and gutters. Feed contaminated by the vaginal discharge of an affected cow is the chief source of infection. Heifers may be raised free from the disease if kept absolutely away from infected premises and feed. Also isolate the herd bull.

Barrenness

Please advise us what to do with a four-year-old Guernsey we have, which is still a heifer, as we are unable to get her in calf, although we have tried bleeding her at the neck, in order to make her catch. Have tried a good many times but no success.

California. D. RANCH.

When a cow goes four years without having a calf it is quite unlikely that she will ever conceive. It may be, however, that an infected condition of the womb is the cause or that the ovaries require massage by the veterinarian. If no such conditions are present and the animal is fat, we should advise you to try the effect of 1 dram iodide of potash given twice daily in water until it causes the eyes to discharge. Then stop using it for two weeks, after which another course of treatment may be given. Do not have the cow bred if she comes in heat while receiving the drug.

Warts

Please send me a recipe for curing warts on cows' necks and shoulders. Some of the warts are about the size of a hen's egg, while others are about the size and shape of a person's finger, laid on the animal's skin. I wish you would please advise me if the recipe you send me will be suitable to remove warts on cows' teats.

Evanston, Ill. S. K. G.

Twist off all large warts or pull them off with pinchers such as a blacksmith uses to remove a horse's shoes. Then apply pine tar. Keep masses of small warts covered with a thick paste of cold pressed castor oil, salt, and flowers of sulphur and they will in time come off. Twice daily for 5 minutes or more immerse the teats in warm water containing a lump of washing soda as large as a walnut per one-half cup or use it often to bathe wart-covered parts. Warts having slim necks may, if preferred, be snipped off with rather blunt scissors, a few at a time. Then apply tincture of iodine.

Sterility

We have had some difficulty in getting our cows with calf. We find months after service that they are not pregnant. We have about 50 head for one male. Is this too large a number? How many cows would you advise should be served by one male?

Floyd's Knobs, Ind. P. V.

Fifty cows are not too many for a vigorous, thoroughly exercised adult bull, but far too many for an immature one. Better breed some of the cows to another bull, that is known to be sure, to determine if the herd bull is at fault. It is to be suspected, however, that the cows have become infected with the contagious abortion disease. To determine that it would be advisable to have a sample of blood from each cow and heifer tested for abortion infection at the state agricultural experiment station. Your veterinarian can arrange to have that done and draw the samples for shipping. Meanwhile obtain and study bulletins on the abortion disease from the state experiment station and U. S. Department of Agriculture.

Cowpox

I have been bothered with cowpox for the last ten years and all my efforts to get rid of it permanently have failed. Last year we recemented the entire barn in hopes of getting it eradicated but it now appears again.

New Richmond, O. A. S.

Isolate affected cows and have them milked by a person who does not attend to the other cows. Cleanse, disinfect, and whitewash the cow stable including the floors and gutters. It is a good plan to flood the floors and gutters with the lime wash and let it dry before returning the cows. Bathe the affected teats for a few minutes night and morning with a saturated solution of boric acid. When dry, paint the sores with a saturated solution of permanganate of potash. Apply strong iodine ointment to sores that are obstinate in healing.

Bloody Milk

What is the cause of a cow giving bloody milk from one quarter? Will it do any harm to a calf by letting the calf nurse from the cow and take the milk?

Ohio, Ill. C. A. B.

If the bleeding is due to a growth in the teat being irritated by the act of milking there will be no objection to letting a calf nurse, but if it is due to garget which has caused a diseased condition of the quarter the milk from that part of the udder is unfit for any purpose. If growths can be seen when the tip of the teat is squeezed or if they are just inside the opening of the teat, a veterinarian can remove them by operation. If high up they should be left alone. Chronic garget is incurable.

Stiff Neck

I have a cow which looks sort of sick. She cannot bend her neck in any way. She will eat and drink but she has to kneel down.

Coal Valley, Penn. J. S. W.

The first step in such a condition should be to have the tuberculin test applied by a veterinarian as tuberculosis of the bones may be the cause of the stiffness. If the cow does not react treat for rheumatism by giving her 2 drams of salol twice daily in feed and increasing to 3 such doses daily if not soon remedial. Tuberculosis is incurable and an affected cow has to be disposed of in the manner prescribed by state law.

Salt for Stock

Please advise me what kind of salt is best for the dairy cow and also for hogs.

Madison, Lake, Minn. C. J. H.

Ordinary barrel salt is the grade commonly in use for all farm animals and is sold for that purpose. Rock or block salt is preferred for horses and by some is given to cows, especially when they are on grass, but is not suitable for hogs.

No Advice Given

I have three young heifers that are with calves. Is there any medicine that I can get for doctoring the calves away?

Oakfield, Wis. D. E. O.

We do not give advice relative to the producing of abortion. Nature should be allowed to take her course in the cases mentioned.


LOWELL'S COW CLEANING PRESCRIPTION

Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It relieves GARGET, BLOAT, CONSTIPATION and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1.00 a package. Mfg. by LOWELL BLAISDELL & CO. NORWOOD PARK, :: CHICAGO, ILL.

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Serviceable Young Ayrshire Bull
Paternal brother to Boggie of Eastsi (World's Champion). Out of Bell of Shad brook No. 37099 who produced 11,590 l milk, 450 lbs. fat in 300 days at the age of years. Price $150.00. Breeding and phot sent on request.
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Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance.
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AYRCROFT FARM
is offering for sale at $125.00 their sr. bull calf th was 1st at seven of the leading fairs of the Centr States. Dam gave 64 lbs. butterfat in November a cow testing association. Herd Federal Accredite
B. B. SIMMONS & SONS, Pewaukee, W

Pure Bred Ayrshire Cattle For Sale
Accredited herd No. 63105. Maud of Fernbrook 14 state class leader. Junior two-year-old, 13280 l milk, 477 lbs. fat. Herd sire, Alta Crest Mainsta Grand Champion over all breeds Junior live sto show, Madison, 1922.
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Accredited Ayrshires
Good type and production are foun in our herd. A special price on youn stock. Write for prices.
W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich

Ayrshire Offering of World's Champion Breedin
Fully Accredited Herd—Certificate No. 10241
BULL born Nov. 13, 1924. Color, mostly white. thrifty individual. Guaranteed Sire: Penshurst Ri ing Star, 20922, A. R. 260, sire of 18 daughters in t A. R. and R. H. with 24 records averaging 10,722 lb milk, 557 lbs. butter, 4.15%. Dam: Kate's Troph 43875, an ideal cow in every respect, with thr official records averaging 14,142 lbs. milk 560 lbs. fa Also a few COWS and a nice line of HEIFER CALVE PRICE: $200.00.
GLEN FOERD FARMS, Torresdale, Pennsylvani

FOR SALE
Twenty-five well bred Registered Ayrshires (accredite herd.) Mostly heifers, one to eighteen months old Some foundation cows. Personal inspection desired
FRIENDS HOSPITAL, Frankford, Philadelphia, P

ACCREDITED AYRSHIRES
POPULAR BREEDING—HIGH PRODUCTION
All cows now making A. R. records. Young stock a reasonable prices including young bull from high test ing cow. Herd sire backed by world's record producer
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Five daughters of Hobsland Lucky Boy 16482 average 12,988.7 lbs. milk, 522.29 lbs. fat. This farm won in 1923 1-R of H. Silver Medal, 4 advanced Registry Silver Medals and 2 French Cups.
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Nebraska Ice Cream Makers Meet

The Third Annual Ice Cream Makers' Roundup will be held at the Dairy Building, College of Agriculture, Lincoln, Nebraska, January 13th to 16th, inclusive. In conjunction with the Roundup the Nebraska Ice Cream Makers' Association will hold its annual meeting on Wednesday and Thursday, the 14th and 15th.

By holding these meetings at the same time it is hoped that a large attendance will be had and that many of the practical problems of the ice cream maker can be taken up.

Further announcements as to program will be made at a later date.

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An infusion of Walhalla blood has proven most advantageous in many herds in this country, Canada, Africa, South America, West Indies and Mexico. Let your next bull carry 100% Walhalla blood. Address
J. FRANK ZOLLER, Schenectady, N. Y.
Care General Electric Co.
Federal Accredited Herd

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proved their case in the early public breed tests. Then they backed up their evidence by performance for their owners.

Ask for "The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
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Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to
AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS
SERVICEABLE BULLS with best of breeding for sale. Write
ERNEST W. SASS, Hoopeston, Ill.

Show Bull
Born April 21, 1924. Sire of Langwater breeding. Dam Phyllis Princess, 640 lbs. fat, over 1400 lbs. milk class A. Price $200. Accredited herd.
RUSSELLHURST FARM, Willoughby, O.

Hillswold Farm Guernseys
W. A. CLOUES, Mgr., Shrewsbury, Mass.

FOREMOST GUERNSEYS
2 Bulls of Serviceable Age
Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Hillbrook Farm Guernseys
E. S. BURKE, Jr., Owner

Herd Sire—LANGWATER HORATIUS, son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested. At 1924 Ohio State Fair we had Jr. champion female and Sr. and grand champion female. At the next show we won 8 out of 9 firsts, 3 championships and 1 grand championship.

For prices and information, write
WM. P. SMEDLEY, Mgr., CHAGRIN FALLS, O.

BULLS 6 to 10 Mos. Old
From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

Guernsey Bulls, Calves and Yearlings
May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.
RICHARD F. KLEMM, Baraboo, Wisconsin.

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Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.
ISLAND FARM, Box A, Floodwood, Minn.

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WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.
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GUERNSEY BULLS
We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.
Send for new list.
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We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

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100 Head of Guernsey Milk Cows
FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address
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Serviceable Guernsey Bulls
We have 35 serviceable bulls for sale here now at very reasonable prices. We are also offering several carload of good grade cows and heifers and can supply pure-bred females in carload lots.
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J. C. Ralston, Sec., Fort Atkinson, Wis.

We Offer For Sale Young Bulls, Cows and Heifers
I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.
W. R. DUNLOP, ELBRIDGE, NEW YORK

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FOND DU LAC, WISCONSIN

WE OFFER the show bull, CORIUM SNOWDROP'S ERIC, born Oct. 17, 1923, who won the following prizes: First at Grand Forks, No. Dakota; Central States Fair, Aurora, Ill.; Tri-States Fair, Burlington, Iowa; Wisconsin State Fair; Michigan State Fair; New York State Fair; Illinois State Fair. First prize calf herd and first prize produce of dam, Wisconsin State Fair. Write for price list of bulls we have to offer.

50 GRADE HEIFERS—Priced to Sell!
REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

REGISTERED GUERNSEYS
FOR SALE

MY JUNIOR HERD BULL, sired by Glenwood's Champion, five years old, $200.

Also TWO-YEAR-OLD BULL, Beauty Eagle breeding, A. R. dam, $150. Warranted breeders; both these exceptional value, worth double.

Superintendent, LA BELLE KNOLL FARM
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Waukesha County GUERNSEYS
Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.
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FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to
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For Sale, 8 well grown high grade Guernsey heifers. Tuberculin tested.
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Serviceable Bull
From A. R. Dam — Price $150
GLENN OF CHIPPEWA is 15 months old, deep bodied, straight backed. Ready for heavy service. His sire is a son of Dairymaid's Glenwood of Pinehurst. His dam is an A. R. granddaughter of King Masher 5th. Write today if you want a good bull at a bargain price.
L. P. MARTINY, Chippewa Falls, Wis.

—Registered— Guernsey Bulls
5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.
RALPH TRATT, Whitewater, Wis.

Grade Guernseys For Sale
CARLOAD LOTS OF FRESH, YOUNG GUERNSEY COWS AND SPRINGERS of the best type and breeding. T. B. tested. Also heifers of all ages. We are offering you a choice of 200 head right now. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself. Every animal sold, guaranteed to be as represented.
Riverview Farm, Lloyd L. Dewey, Mukwonago, Wis.
(In Waukesha County)

EL JANE GUERNSEYS, Arcadia, Missouri
(Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.)

We have a surplus of Bull Calves all from COWS with records, sired by our Senior Herd Sire, who is a 1st prize and Senior Champion Show Bull. His 5 nearest tested dams averaged over 600 lbs. fat. Some of the dams of these calves made over 11,000 lbs. milk and as high as 580 lbs. of fat as junior 2-year-olds. Look where you will you cannot get better breeding. If you are interested and want to do business quickly on a price you cannot turn down write or wire us for a price list and pedigrees. They will go fast. Also 2 young serviceable bulls in list.

Address: EL JANE FARMS Arcadia, Missouri

2 SONS OF LADYSMITH CHERUB
The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.
SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

HAYES' CHERUB II and GERAR PEARL
We are line breeding these two great individuals by using our herd sire, Cherub's Dart (out of Pearl's Dot), on our recent purchases at Mr. Stout's and Mr. Marsh's sales.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

MARSH FARM GUERNSEYS
Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

For You to Consider

This bull calf was born March 21, 1924. His sire is ANTON'S KING CONFIDENCE and his dam is a mighty good cow with an A. R. record. This calf is priced to sell right away. Send for more complete description of him.



ANTON'S LEADER OF PROSPECT—101859

Hoard's Dairyman Farm, Fort Atkinson, Wis.

SWINE

FOR SALE — BY MAIL

HAMPSHIRE BOARS, PIGS GILTS

Write for FREE Price List.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

JERSEYS

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; **ALSO REGISTERED JERSEY BULL CALF.**

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.

Sophie's Tormentor JERSEYS

Have been bred for many generations for type and heavy production. Best representatives of this great producing family may be purchased at Randleigh Farm, Lockport, N. Y. Bull calves and a few females for sale. Write for our free 28-page booklet.
Federal Accredited Herd No. 72406
W. R. KENAN, JR., Owner. T. E. GROW, Supt.

Cedar Crest Farms

For Sale **-- TWO REAL BULLS,** Raleigh breeding. Ready for light service. **Also a few BABY BULLS.** Full particulars and pedigrees on request.

J. K. DERING, Owner Lake Villa, Illinois

6 JERSEY BULLS
2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age
and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Valley Farm
is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy., R4, Box 5, Springfield, O.

FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

The Successful Dairyman

(Continued from page 729)

the dairyman's business. Keeping inferior cows in the barn is identical, in effect, with keeping boarders in the house who never pay their board bill. Weeding out the poorer cows and replacing with better is a continual process on successful dairy farms. In addition to weeding out the poorer cows the successful dairyman provides for the birth of better animals in his herd through following a good breeding practice. He chooses his herd sire with extreme care. His calves get the best of care and are well developed.

The third essential factor is cow comfort. Cattle must be kept in comfort if they are to do their best work. The successful dairyman provides stalls that are comfortable and keeps the stable clean, well lighted, and well ventilated. The water supply is pure and abundant. The herd is tested regularly for tuberculosis and any attack of other disease promptly combatted. The heavy milking cow is a hard working animal and the dairyman knows that careful attention to her comfort pays him big dividends in dollars and cents. The old adage of the beef cattle breeders, "The eye of the master fatteneth his cattle," might well be paraphrased for the dairyman to, "The eye of the master openeth the milk wells of his dairy cows."

The final essential is quality products. Quality in milk means clean milk, free from disease germs, filth, or objectionable odors and containing normal amounts of butterfat and other milk solids. Milk is a cheap and essential food. The health and vigor of the people of our nation is dependent upon a liberal consumption of milk and other dairy products. The successful dairyman knows that quality in milk leads to a greater consumption which in turn enlarges his market. He, therefore, carefully follows sanitary practices and delivers his milk or dairy products in the best possible condition.

In addition to carefully following the accepted rules for success in his business the successful dairyman puts something of himself into his work. His personality finds expression in the manner in which he organizes his work and in the type and appearance of his dairy herd. He believes in and loves his work, makes a business of it, has pride in it, studies it and makes use of new information as it appears from time to time from the agricultural experiment stations or through the experience of others.

The future seems promising to any man who aspires to achieve success along dairy lines. True there is at present a great volume of dairy products in the country, greater than ever before. Influences are already operating, however, that tend to decrease production. Prices of feeds are higher. Men who were attracted to the business during war times because of the good prices are voluntarily dropping out. The man dairying with poor cows and poor methods is being forced out. On the other hand, population is increasing and the consumption of dairy products per capita is slowly gaining. These conditions would seem to justify a strong feeling of optimism.

There is a great need for the superior working ability carried by purebred dairy cattle. Men with a vision will see in this condition an opportunity. Pure-bred cattle can now be purchased at rock bottom prices. Good quality pure-breds bought now will provide a foundation on which can be built a good business in breeding and developing pure-bred cattle. The demand for better cattle is growing and may soon be insistent.

To any dairyman who enjoys his work we would say that you are in the right business. Stick to it. Adopt and stick to good business methods. Make use of all available information. Keep your standards of quality high in both cattle and dairy products. At the present time there is perhaps no farm business so full of splendid opportunities, financial and otherwise. No need to feel it may become monotonous. It carries opportunity for the exercise of all the skill and ability you may possess and promises commensurate rewards. Dairying is a worth while business. It makes money. It develops ability and initiative. It gives opportunity for community leadership and, finally, provides an essential food. Because this food is essential the successful dairyman may justly feel that in addition to such financial rewards as may come to him he is contributing in a very material way to the upbuilding and development of humanity.

Says Sam: A good book, these long evenings, warms a man's heart and mind just as a fire in the hearth warms his body.

Continued Production Essential

"In a commercial sense the dair cow is a machine for the productio of milk and butterfat and the repr duction of other machines of her kir and purpose. Certain characteristi are essential without any one of whic she will not be able to function profi ably. These characteristics are fi in number and include constitutio capacity, nervous temperament, bloo circulation, and ability. They have do not only with the machinery production and reproduction but wi the endurance and functioning of th machinery. Continued production just as essential as volume."—Kans Bulletin No. 167.

HOLSTEINS

Foundation Holsteins
Selected With Care

Ask for prices and particulars on sons a daughter of our Two—1st prize bulls at t Northwest Dairy Exposition and the Minn sota State Fair. You will be surprised learn how reasonable we sell these choice a mals. Accredited herd.

ONAL HOLSTEIN STOCK FARM
Alexandria Minneso

P. Frost Spaulding Farm C

offers choice Bred Bulls from good record dams a sired by **KING PEITERTJE MERCEDES ORMSB** one of whose daughters has just broken the World Record in the senior two-year-old class with 1,119 l butter in a year. This sire is a son of Sir Pieter Ormsby Mercedes from an 1,100 lb. daughter of 1,000 lb. cow and is one of the few sons of S P. O. M. backed by two generations of 1,000 lb. da Get our prices.

C. L. SPAULDING, MGR., Warren, Min

A Grandson of S. P. O. M. 37t

Dam's yearly record 819.2 lbs. butter. Bo March 12, 1924. Very good individual; white. Price $150. Herd federal accredite

B. A. NORRIS ANOKA, MIN

Five Purebred Holstein Heifers

2-year-olds well grown. Due to freshen t winter. Official record dams, yearly reco sire. Bred to a 28-lb. bull. Also five b calves up to nine months old, same breedin Priced reasonable.

B. F. MILLER POUND, WISCONSI

Ormsby-Homestead Bull

Out of A. R. O. dams and by a son of S. P. O. M. for sale at farmers' prices.

MILFORD MEADOWS STOCK FARM
J. C. Cort, Manager, Lake Mills, Wisconsi

A YEARLY RECORD HERD

The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, o month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you wan

JOHN H. PULS - - ALLENTON, WI

Grahamholm Herd

We are using Dutchland Creamelle Colantha Lad and Duke Pietertje Korndyke Ormsby on our select herd of over 100 females. We have a few serviceable sons and grandsons of "Dutch" and some of "Duke" for sale; also some calves that will soon be ready for service.

GRAHAMHOLM FARM,
D. G. Twentyman, Manager Rochester, Minnesota

OHIO HOLSTEINS
FOR SALE

Registered **COWS, HEIFERS and BULLS.** Very choice Calf Club **CALVES.** State exactly what you want. One or a carload.

OHIO HOLSTEIN-FRIESIAN ASS'N
E. M. CLARK, Field Secretary
10509 Euclid Ave., Cleveland, Ohio

Give Your Child a Jersey Calf Next Thursday

--- He will appreciate it a long time!

Write: **AMERICAN JERSEY CATTLE CLUB**
Dept. B, 324 W. 23d St., New York

The Son of a Silver Medal Bull For Sale

SNOWFLAKE'S TORMENTOR 234788, born Feb. 24, 1924

A fine fellow, tracing to Gold Medal Bull, Sophie 19th's Tormentor, on both sides. Photos, pedigrees and description on request.

Herd Federal Accredited **SHERMAN JERSEY FARM, Dept. B, Charles City, Iowa**

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Serviceable Bull -- 1000 lb. Dam

AAGGIE PONTIAC KORNDYKE HARTOG (Ear Tag 348) was born Feb. 7, '24, is a nic straight, well grown calf. He is sired by a son of Pontiac Aaggie Korndyke from a 938-l 4-year-old. His dam produced 1067 lbs. butter in a year as a 4-year-old and her dam 1049 lb as a 3-year-old. His 3 nearest dams average 1018 lbs. in a year, all records made under full ag
Write us today for price, pedigree, etc. This bull will suit you.

PINERY FARMS - - - MENTOR, OHI

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*

Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".

Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.

Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.

A. J. LASHBROOK - - - Northfield, Minnesota



Sir Walker Segis Homestead

Select Your Foundation Females in Northfield Community

WHERE MANY OF THE GREAT HOLSTEINS OF THE BREED, OR THEIR IMMEDIATE ANCESTORS, WERE BRED

Send for the new community circular just out, or better still, come and select those *you like* whether grades or pure-breds. We have them at reasonable prices.

CARLETON COLLEGE FARMS NORTHFIELD, MINNESOTA
FEDERAL ACCREDITED HERD

We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale. If you are in need of a Herd Sire, write us for further information.

HOLLYHOCK FARMS
DOUSMAN - WISCONSIN
(IN WAUKESHA COUNTY)
GUSTAVE PABST, Owner F. J. SOUTHCOTT, Manager
A clean herd under state and federal supervision

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

OUR HERD SIRE
Toyon Galaxy Model Segis

is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.

DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Ollie-Ormsby

BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.

WALCOWIS FARMS Lake Geneva, Wis.

BARGAINS
In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y, Randolph, Wisconsin

When You Want Holsteins!

Come to Jefferson Co. 1000 herds to select from. Our secretary, an experienced Holstein man, will assist you free of charge. Write

JEFFERSON CO. HOLSTEIN ASS'N, T. W. Anthes, Sec., Jefferson, Wis.

HEALTHY HOLSTEINS

If you want either purebreds or grades from federal tested herds and sold on a retest guarantee write us. Prices are very reasonable.

ROCK COUNTY HOLSTEIN BREEDERS' ASS'N.
John W. Jones, Sec. MILTON JCT., WIS.

Purebred and Grade Holsteins

We have a surplus of splendid fall-freshening, purebred and grade Holsteins. Oldest Holstein section in Wisconsin. More Holsteins than any similar territory.

DODGE COUNTY HOLSTEIN ASS'N.,
Francis Darcey, Secretary, Watertown, Wis.

HERD SIRE FOR SALE

Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire. "Lad" is guaranteed right.

MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

SAUK COUNTY HOLSTEIN ASS'N.

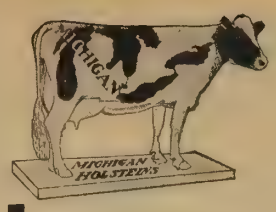
Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.

N. T. GILL, Sec'y., Reedsburg, Wis.

Grade Holsteins
19 Heifers For Sale

Being over stocked we offer as a whole, one family of 19 daughters ranging in age from 7 months to 2 years. Sired by a 30-lb. bull whose dam was former Kansas state champion. They are priced to sell for the above reason.

FRED HARVEY DAIRY FARMS, Newton, Kas.



Buy Michigan Holsteins



If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several car loads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE

One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.

L. C. KETZLER, R. 8 Flint, Mich.

2 SERVICEABLE BULLS

One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $150 takes either bull. Herd under Federal supervision.

J. E. BURROUGHS Flint, Mich.

D. D. AITKEN, Flint, Mich.

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.

FOR SALE

A bull calf one year old, well grown, large for age, more black than white, show type. Sired by our junior herd sire—dam better than 30 pound cow of wonderful type and breeding.
PRICE $300.00.

Did You Ever Milk a Heifer?

That made 20.99 lbs. butter at 23 months old in 7 days? Our this week's offering is from such a heifer and in the first 3 mo. of her lactation has made 11,347.9 lbs. milk 459.19 btr. (private herd record). He is sired by ECO-SYLV KING WALKER, a son of Champ, Echo Sylvia Pont. from a 31 lb. jr. 3 yr. old. He was born Feb. 3, 1924 and is well grown. The price is $175.00. Terms to suit. Write for pedigree and picture.

SERRADELLA FARMS, Albert E. Jenkins, Mgr., A Clean Herd OSCODA, MICH.

Young Bulls
AT FARMERS' PRICES!

I am offering for sale several excellent young bulls at very reasonable prices. They are sired by Ollie Pontiac Segis Piebe, one of the finest individaul sons of Piebe Laura Ollie Homestead King, out of a 1025-lb. daughter of King Segis Pontiac Count, and are out of well bred, good producing dams. These bulls are from a few weeks to twelve months old.

WRITE TODAY IF YOU NEED A BULL

LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins
Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

A Grandson of Echo Sylvia King Model

Born: February 29, 1924, well marked, 50% white. His three nearest dams average 841.27 lbs. butter and 21,191.5 lbs. milk in a year.

His Sire—Traverse Colantha Echo, is a son of Echo Sylvia King Model and a 27-lb. 4-year-old cow with a 305-day record of 900 lbs. butter and nearly 20,000 lbs. milk.

His dam—Dolce Eden No. 250767. At 7 years of age:

Butter	7 days	30.09	Milk 659.6
Butter	365 days	748.93	Milk 20,954.9

Her dam is a 24-lb. cow with a 365-day record of 874.97 lbs. butter and 22,750 lbs. milk.

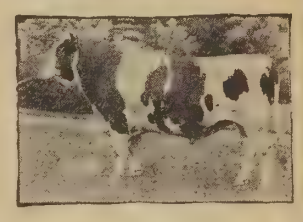
Send for pedigree of Ear Tag No. 130 and new list of bulls for sale by

MICHIGAN STATE HERDS
REGISTERED HOLSTEIN CATTLE

MICHIGAN STATE HERDS
BUREAU OF ANIMAL INDUSTRY,
Department B LANSING, MICHIGAN

Detroit Creamery Co. Holsteins
Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale

a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

DETROIT CREAMERY CO. FARMS, - MT. CLEMENS, MICH.

Maplecrest Korndyke Hengerveld
THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

30 Extra Fancy Grade
HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write

RIVER MEADOW FARMS, Portlandville, N. Y.

Foundation Stock

HEIFERS, COWS, CALVES both sex of good breeding, from 2 mos. old up. Prices within reach.

ORCHARD CREST FARMS, SCHOHARIE, N. Y.

Oatman Farm Holstein Herd

FEDERAL ACCREDITED

Every cow has an A. R. O. record. World's record and grand champion breeding. Write for bull sale list.

O. A. JENS, Mgr., DUNDEE, ILL.

BUFFALO CREEK FARM HOLSTEINS

Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.

Herd under federal supervision.

H. L. BINGHAM, Arlington Heights, Ill.

BULL CALF

BORN FEB. 11th, 1924

Well grown, mostly white, and a good one

Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.

Write for particulars and price.

IOWANA FARMS Davenport, Iowa

Bull Calves For Sale

We have a few male calves from choice dams for sale. They are sired by Meadow Holm Jolie Pontiac Hartog—our 1173-pound yearly record sire. Lots of milk records back of this breeding.

=PRICE $50.00=

SLIVKA BROS. Plainview, Illinois

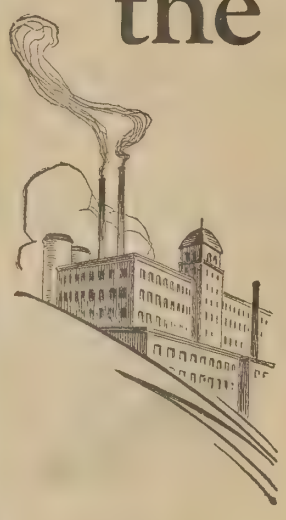
High Testing Show Bulls
=ALL AGES=

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.

HARGROVE & ARNOLD Norwalk, Iowa

FORWARD WISCONSIN
FARM FACTORY COMMERCE

Production— the Builder of States



PRODUCTION, on farm and in factory, is the giant force that has made Wisconsin prosperous. Whatever slows up production—whatever makes it harder to be successful through honest effort—puts our prosperity as a state in danger.

That prosperity of ours is a priceless, precious thing. It means comforts for all of us—freedom from many worries—*opportunity* for our children.

Wisconsin produces in one year—

Agriculture & Forestry } $ 780,616,000 with 308,038 employed.

Manufactured Products - - } $1,846,984,000 with 339,573 employed.

These figures are big. They must be bigger if we are to hold our place with other states and care for growing population.

With our assets of soil, climate, location, natural resources and above all, the high character and energy of our people, we can compete for the markets of the whole country.

Ninety per cent of our factory products are now sold outside Wisconsin. If we are to go "Forward" we must keep down cost of production to compete with 47 other states. Our laws and our taxes must not be more severe than other states impose.



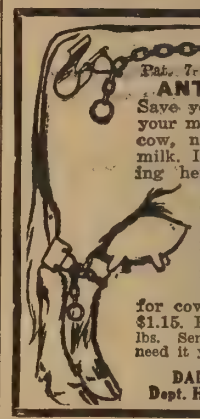
WISCONSIN MANUFACTURERS' ASSOCIATION
MADISON, WISCONSIN

FARM AND FACTORY MUST PROSPER TOGETHER

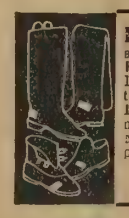
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PROLIFIC BREEDERS
STRONG—HEALTHY
Animals Guaranteed



Largest profit producing live stock in the world. A great many Dairymen already started, large profits with very little additional work. You waste enough every day to feed several pair. Don't hesitate, write today for our catalogue and information, its interesting.
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ANTI-COW KICKER
Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.
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REPAIR RUBBER FOOTWEAR
at home. No equipment needed. Big REDDY Rubber Repair Kit with illustrated book shows how to repair torn and worn rubber footwear and 101 other uses for old inner tubes, make beautiful hand bags, belts, toolcases, etc. Complete kit $1.00 prepaid. Money back if not satisfied.
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153B Marvin Ave., Akron, Ohio

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JAS. SCULLY, Box 109 Pomeroy, Pa.



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Jagerson Fuel Company, Neenah, Wis.

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Red Clover and Timothy mixed--the standard grasses cannot be surpassed for hay and pasture. Contains good per cent clover. Just right to sow. Thoroughly cleaned and sold on approval, subject to government test. Ask for this mixed seed if you want our greatest bargain. Have Pure Clover, Sweet Clover, Timothy and all Field and Grass Seeds. Buy now. Prices are advancing. SAMPLES and 116-p. catalog FREE.
A. A. BERRY SEED CO., Box 655, Clarinda, Iowa

A Profitable New Year Resolution

"I will, in 1925, keep accurate herd records"

IF you have been depending on your memory for keeping records of your herd of cows, the new year is an excellent time to turn over a new leaf, put those records down in black and white and keep them there.

So many things can happen to a man and his memory—and so many buyers of dairy cattle insist in seeing the proof of pedigree and performance *in writing*—that records, accurately kept are highly profitable.

THE Hoard's Dairyman Pocket Herd Book is the most convenient form in which to keep those records. The size, 3¼" by 5¼"—makes it just right to carry with you. It is in loose leaf form, so pages can be torn out or put in at any time. Sufficient leaves are furnished with it for 100 head, showing sire, dam, sketch, service and production records of each animal. A gestation table and extra blank pages for notes and reminders, with a handsome, durable, genuine leather cover are included.

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HOARD'S DAIRYMAN **Fort Atkinson, Wisconsin**

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HOARD'S DAIRYMAN

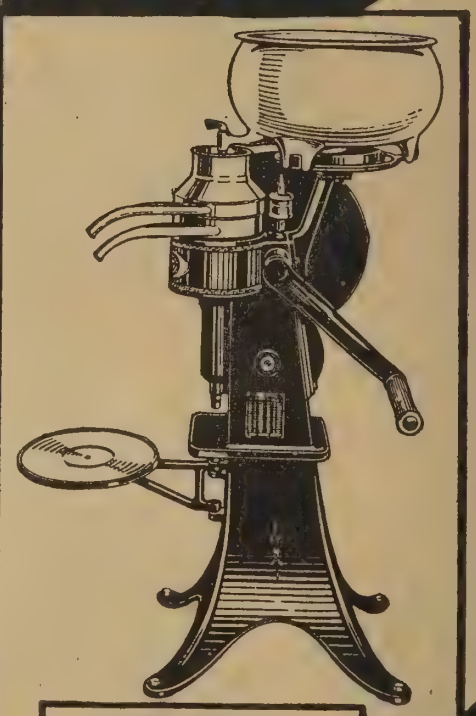


Volume LXVIII, No. 25 Fort Atkinson, Wisconsin January 2, 1925

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Entered at Fort Atkinson, Wis., as second class matter.

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Volume LXVIII FORT ATKINSON, WIS., JANUARY 2, 1925 Number 25

FINDING WEALTH ON A DAIRY FARM

Happiness, Contentment, Increased Knowledge, a Well Managed Herd, Fertile Fields, and a Love for His Fellowmen Return Big Profits to Emil Dreger

A GOOD farmer, a good neighbor, a progressive dairyman, a community leader, a well informed man—that is Emil L. Dreger, Dane County, Wisconsin. What a fine combination! And yet with all these qualifications there is something lacking. Despite his 40 years, all of them spent on the farm, he is still single. But he has his mother and sister and a good home! Dairying has not made Emil Dreger rich in money, but it has brought him untold wealth and happiness and contentment. At the same time dairy cows have furnished a comfortable living and the land has been kept in an excellent state of fertility. The methods used by this Wisconsin dairyman are worthy of consideration, for they may help you.

Our First Introduction

The first time we met Mr. Dreger was at a cow testing association picnic last summer. He was general chairman and he made a good one. Whether it was introducing speakers, supervising a judging contest, or playing games, yes, or eating, Emil had the knack of doing the right thing at the right time in the right way. Still, with all this responsibility he was not too busy to make new friends. We were informed that Emil was one of the organizers of this thriving cow testing association. A couple of weeks later we visited the Dregers at home to learn more about the Dreger system of dairy farming.

The Dreger farm is 80 acres in extent. A herd of about 30 head of grade and registered Holstein-Friesians is the chief source of income and brings in about $300 a month on the average. To be sure, there are a few chickens, but no hogs. The dairy herd, of course, is tuberculin tested. Bran and linseed meal, together with home grown feeds, legume hay—alfalfa and clover—silage, and good summer pasture—sweet clover and alfalfa—make a profitable milk combination. The herd average for one year on 16 cows was 8,991 lbs. of milk containing 326.1 lbs. butterfat.

Getting Started With Alfalfa

The farm was settled by Emil's father 50 years ago but has been under the management of Emil since 1900. In 1904 young Dreger completed the short course at the Wisconsin College of Agriculture. In that year also he became a member of the Wisconsin Grain Growers' Association and brought home a small amount of alfalfa seed—enough to plant ½ acre in a strip bordering the road. Fortunately the land was underlaid with limestone. In addition, the road dust helped keep the land sweet. So the first year the alfalfa crop was a success. This encouraged increased acreage. Alfalfa has been a standby on the Dreger farm for twenty years. In 1924 there were some 15 acres in alfalfa.



MEET THE FARM MANAGEMENT
Emil L. Dreger (center), his sister Ella (left), and his mother (right).

The Dreger herd stood fourth in the cow testing association last year, and five cows qualified for the Register of Production. Korndyke, a 6-year-old pure-bred, stood second with 12,607 lbs. of milk containing 479.9 lbs. fat to her credit. Eileen, a 6-year-old grade, came in a close third with 476.5 lbs. butterfat. Ruth, a grade 4-year-old, was high cow for her age in the association with a record of 11,890 lbs. milk, 446.0 lbs. fat.

Does Mr. Dreger believe in cow testing association work? You better believe he does. Here is his testimonial: "I consider the fees paid for membership in a cow testing association the best investment any one can make, if he expects his cows to keep him. A cow testing association creates a co-operative spirit among the members. Testing creates a better understanding as regards the ability and the feed capacity of the various individuals of the herd. If a man just wants to keep cows, testing is superfluous."

In fact, Mr. Dreger is such a strong believer in cow testing association work that he gave several days of his own time to help organize the Middleton—Dane Association in 1922. For two years he served as its president and now he fills the office of secretary-treasurer.

Good Feeding Plus Good Breeding

How about the herd? Mr. Dreger believes that milk production depends not only on good feeding but on good breeding as well. He favors Bell Korndyke blood. This famous matron of the Holsteins was the first black and white to produce 25 lbs. butterfat in 7 days. One of the bulls owned by Emil was a son of Sir Piet. At present the herd is headed by a young bull purchased from the Norris Farm Camp, Waukesha County. Prince Elba Ormsby of O. V. was shown successfully at the 1924 Dane County Fair. His dam, Rose of Orchard View 2d, made a year's record of 928.5 lbs. butter at the age of 10 years.

It has already been mentioned that good feeding practices are followed. While the whole milk is sold to the condensery "because somebody collects the milk and all we have to do is get it on the stand in front of the house and we're through", enough milk is held back to separate. The skimmilk is fed to the calves and the cream churned. Whole milk is fed the baby calves for the first two weeks—after that their diet is gradually changed to skimmilk, grain, and good legume hay.

Turning Night Into Day

It was evening and darkness had descended when we went into the barn. We didn't have any trouble getting there nor looking around when we did get there. Presto—the electric lights were turned on. A couple of lights flooded the barnyard with light. Inside the barn electricity turned the night into day. There were stanchions and pens, drinking cups, and a manure carrier.

"We think one of the handiest lights we have is that one up in the hay mow," said Mr. Dreger, snapping a button. We climbed the stairs and he went on—"It was always a dark place to throw hay down at night. And dangerous with a lantern, too. Now it's daylight up there all the time."

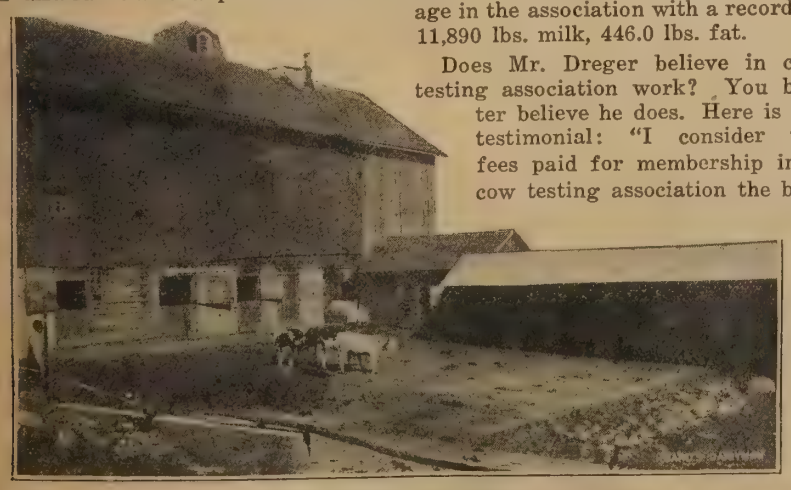
When we descended the stairs after inspecting a mow full of fragrant alfalfa, he called our attention to the electrically operated water system, of which he was quite proud. No waiting for the wind, no pumping by hand—running water all the time, just turn the faucet. Don't get the impression that Mr. Dreger has an elaborate barn, far from it; thousands of farmers have better barns. But the big point is that he has conveniences in his barn that make the work easier and "lighter".

He informed us that the manure is hauled out onto the land every day except for a short time in the spring when the ground is too soft. It is his practice to manure new seedings, manure again just before plowing under, and a third time after the crop of corn is off.

The Concrete Barnyard

About the barn there were several other things of interest. There was the barnyard for example. It was

(Continued on page 782)



ILLUSTRATING SEVERAL IMPORTANT FEATURES ABOUT THE BARNYARD
First, the concrete yard; notice it has been built "piecemeal" as time and finance permitted. Second, an electric light for the yard safety turns darkness to light. Third, the cattle shed in the yard for protection in stormy weather. Fourth, the manure carrier, a labor saving device. Fifth, the new addition in the barn making necessary additional ventilation.



CONTENTED COWS ON A DELICIOUS ALFALFA PASTURE
Mr. Dreger makes milk manufacture easier for his cows by giving them good pasture all during the season. He alternates them in a sweet clover pasture and this alfalfa field. His cows waste little energy looking for something from which to make milk.

Selling the Pure-bred Sire Idea

H. H. BIGGAR, NEBRASKA

"Old scrub sire, your pedigree is lacking,
Old scrub sire, there's nothing left for you;
Old scrub sire, your reputation's cracking,
And we'll lead you to the stockyards where
you'll get your due".

THIS was the stigma heaped by a Nebraska speaker on an animal which it is hoped will soon be extinct on our farms. The occasion was a trip of 17 days through the state of Nebraska, a campaign planned and carried out by the Chicago, Burlington, and Quincy railroad, the Nebraska Dairy Development Society, the State College of Agriculture, various dairy breed associations, and local committees in 31 towns and communities.

Starting out with 31 pure-bred dairy bulls, representing the Holstein, Jersey, and Ayrshire breeds and valued at approximately $6,000, those having the pure-bred special train in charge returned with 31 of the wildest and wooliest scrub bulls ever assembled in one state. These scrubs weighed about 750 lbs. each and brought a total of only $645.70.

Enterprising owners of dairy herds helped make this trip a successful one. They donated the pure-bred dairy sires, with the understanding that each was to go to some community and that from that community was to come in exchange a scrub which had actually been in service. There was no string attached to this plan of exchanging the bulls. The pure-bred bull became at once the property of a new owner, with only one condition, that being that the recipient should keep the bull at least two years.

At each place where the train stopped for a meeting, the scrub sire was loaded on the train. At the same time, one of the pure-bred bulls was led down the plank after being presented with all due ceremony to the new owner. The money received from the sale of scrubs was prorated among those who donated the pure-bred sires.

No single event in the history of the state has ever attained such momentum and attracted such interest as this pure-bred special and its mission as it moved for over 1,600 miles up and down the Burlington lines. All classes of people showed their interest and gave their support. Local chambers of commerce got busy and staged all-day celebrations at most of the stops. At every one of the 31 towns, the local committees did yeoman service. It was these committees who made the decision as to what man in the community should be presented with the pure-bred dairy bull. They made their decisions after considering various factors. They selected some one who was interested in dairying, a man who could be depended upon to take good care of the animal, one who was regarded highly in the community and would serve as a good demonstrator.

Although the Special never stopped at any town longer than half a day, the local committees and the business men staged all-day programs. They held barbecue lunches. They donated money for prizes, these being awarded in drawing contests, tickets being drawn out of a hat and certain numbers being designated as the winning ones. Usually a dairy heifer figured in the drawing, or several of them. Merchants in some of the towns advertised special bargains or donated merchandise for prizes. In order that the farmers might be the ones who benefited in the day's program, it was usually stipulated that only farmers or members of their families could participate in the drawings for prizes.

The train consisted of about 10 cars carrying an array of speakers, dairy cattle, and dairy exhibits. Some of the highest producing dairy cows from the college of agriculture made the trip. Their names and records were posted above them in the stalls. Posters were on hand showing the way in which pure-breds make the income climb in the dairy herd. Features of each stop were the addresses and demonstrations given from a car, demonstrations in which experts from the college of agriculture and from national dairy breed associations used some of the animals on board to demonstrate the essential characteristics of the best type of dairy stock. At each stop the scrub bull from the community was lined up by the side of a pure bred bull and the differences clearly pointed out.



SPEAKING FROM A FLAT CAR TO AN AUDIENCE OF 3,500 PEOPLE AT MILLIGAN, NEBR.

Following the speeches, the cars were opened and every one given a chance to go through the train with competent guides. A count was taken of all passing through. In the 31 towns visited, 71,335 people went through the train, the maximum number being 4,066 and the minimum 954 people. It is safe to say that 100,000 probably heard the addresses. Forty, fifty, and sixty-mile trips on the part of farmers to pay a visit to this train were not uncommon. At the town of Alliance, a ranchman drove his car in from a Wyoming locality, eighty-five miles away. As the crowds went through the train they bombarded the guides with questions along pure-bred sire lines and along dairy lines. Notwithstanding the fact that only dairy sires were given away, the speakers stressed the fact that the pure-bred lessons extended to every kind of live stock kept on the farm.

"The "Mystery Cow" was a feature of the train which was widely advertised and attracted much attention. This was a Holstein cow and at each stop she was led from the train and a fence placed around her. Cards were passed out and each person was asked to guess her production record in pounds of milk for one year. The person making the nearest guess at each stop received a milk scales and the person guessing the closest during the entire trip received a motor. This cow had actually produced a total of 25,947 lbs. milk in her best year. Guesses ranged all the way from a few hundred to fifty thousand or more pounds.

The Pure-bred Special undertaking was in every way a real success. It has left its impress on thousands of people in thirty-one different communities. It has demonstrated that business men and farmers can co-operate to the fullest possible extent and that Nebraska can be a greater state because of this co-operation.

League Buys Homer Milk Plant

H. H. LYON, NEW YORK

IT was quite a number of years ago, perhaps fifteen, that I was asked to visit Homer, New York, to see what was being done in the newly established milk plant at that place. An entirely new plan of operation had just been inaugurated. Milk at that time had become recognized as something especially important, and its quality of much consequence. Certified milk was then known as something really superior but it was also then as now costly.

The Homer plant was started for the purpose of furnishing milk that might be not only superior to the usual supply of that day but superior to the pasteurized. It was intended to approximate certified but at a much lower price. It is my understanding that this was the beginning of what we now know as grade A milk. So far as my knowledge goes this plant has never gone down to a lower grade. We have gone a long way in twenty years, for the general run of milk these days is of very high quality.

Now I am reciting all this just because the Dairymen's League is about to take possession of this plant by its purchase of the Clover Farms business. I do not know when the Clover Farms' Company purchased this plant, but they have operated it, together with six other plants, for some time. Clover Farms was started by the Campbells as a milk business in 1891, there being at first but one wagon manned by Mr. L. L. Campbell. They built up trade and now have 160 delivery wagons. It is a very high class trade, among which is the group of sixty infant feeding stations now under the city health department. My understanding is that it was Homer milk that started these stations, then operated by the Dairy Demonstration Company.

All the Clover Farms plants are favorably mentioned and are a credit to the Dairymen's League, as is the city business to the Bordens who will operate the city end.

There are those who think that this idea of the League turning business to the Bordens a mistake. It would not be wise for me to pass judgment on this, yet one may have opinions. In my opinion it is not a good plan for the League to try the retail business in New York City. Every time I see any new sides of the distributing business down there I am more than ever convinced that it is a highly specialized affair and that the League should keep out of it if possible.

It looks like good business to turn this to the Bordens so long as they are friendly buyers and the other concerns are not, unless it puts the organization under the control of that concern. In a sense it may be so understood but at the same time so long as the League retains the country plants the Bordens are as much under control of the League as the League is under control of the Bordens. An interruption of the big city business is probably more dangerous for its owners than any interruption in the country could be to the producers. They are mutually under obligation now and make a strong team, apparently with profit to each other. The accompanying picture shows the Homer plant as it is at present.



THE MILK PLANT AT HOMER, N. Y., WHICH IS ONE OF THE SIX PLANTS ACQUIRED BY THE NEW YORK DAIRYMEN'S LEAGUE BY ITS PURCHASE OF THE BUSINESS OF THE CLOVER FARMS COMPANY

Goes Over 300-bushel Mark

Gottlieb Pfeefer, living northwest of Lafayette in Tippecanoe Co., Ind., grew 85 bushels of real potatoes from three bushels of certified early Ohios and demonstrated to his own satisfaction that good seed stock pays.

Pfeefer secured three bushels of certified potato seed from the Tippecanoe County Farm Bureau last spring. The Ohios cost $1.31 a bushel. These he planted on a rich barn lot and gave them good care throughout the growing season. At digging time he harvested 85 bushels or the largest and best crop he had ever grown. Certified potato seed is the first big factor in bringing the farm potato patch back, Purdue potato specialists say.—Purdue Experiment Station.

FROM SCRUBS TO MILK PRODUCERS

C. R. SMITH, IOWA

IT is possible to "grow" into the dairy business and do it economically, according to the results of the "Arkansas experiment" of the Iowa Experiment Station. With a bunch of scrub cows and a pure-bred sire, given the proper feed and care, this experiment proved that a herd of scrubs may be developed into profitable producers in three generations. An average increase over their scrub ancestors, of 99 per cent in milk production and 94 per cent in butterfat production, in granddaughters, have been recorded in the tests with scrub cows and pure-bred sires of three dairy breeds, Guernseys, Holsteins, and Jerseys.

Average increases over their scrub ancestors of 42 per cent in milk production and 39 per cent in butterfat production have been recorded for daughters of scrub cows and pure-bred bulls.

Because of the initial expense required, comparatively few dairy farmers are able to have pure-bred herds with which to start in the dairy business. Consequently most of the dairy products of the country come from grade cows. This means that there are many farmers with common cattle who are anxious to build up a higher and more economical production by improving their herds, thus enabling them to enter the dairy business on a really profitable scale.

"Will a pure-bred dairy sire do the job efficiently?"

It was with a view to answering this question for the dairy farmer that in 1907 the Iowa station began the "Arkansas experiment". Seven cows, four yearling heifers, two heifer calves, and one young bull were purchased in an isolated section of Arkansas. The animals were inferior, small, and of limited abdominal, udder, and mammary vein development. Also records showed that no pure-bred bulls had been used previously in that section.

The environment from which these cattle were obtained was not suited to heavy milk production. The cattle received little if any grain and were forced to exist on the scanty supply of available grass and hay. These animals had been kept as family cows, with no other function than that of supplying enough milk for family use and raising calves until they were old enough to forage for themselves. No records of milk production or of the length of lactation period had been kept.

After they were purchased and taken to the station the scrub cows and their calves were given the same care, feed, and shelter as pure-bred dairy cattle in the college herd. Of the cows that were of producing age when they came to the station, two were four years old and the rest mature. The four-year-olds produced on the average 3,084.6 lbs. milk and 149.24 lbs. fat. Under good care and feed they steadily increased until at seven years of age they showed an increase of 4,907.7 lbs. milk and 229.91 lbs. fat, or an increase of 59 per cent in milk and 54 per cent in fat over their first year at the station. Allowing for a natural increase due to maturity, an increase of 49 per cent in milk and 46 per cent in fat was due directly to proper care and feeding.

In other words, ordinary scrub cows given proper care and attention almost doubled their yield of milk and butterfat.

The younger an animal is when subjected to good treatment, the greater will be its response. Heifers raised under poor conditions cannot be expected to give good production even with good feeding during the milking period. Those cows coming to the station at four years of age produced 14 per cent more milk and 8 per cent fat than did those coming at maturity, while those coming as heifers produced 27 per cent more milk and 24 per cent more fat than did the older animals.

It was the use of pure-bred sires, however, which showed that a high producing dairy herd could be developed with the use of scrub dams. But high production alone is not sufficient. Economical production is a necessity for the dairyman. Feed records were kept during the investigation and it was found that the granddaughters of scrub dams, three-quarter bloods, gave the cheapest production, with the half-bloods or daughters next, showing that grading up the herd with a pure-bred sire not only increased production but lowered the cost of production.

Comparative feed costs per 100 lbs. of milk produced showed $2.84 for the scrubs, $2.77 for the half-bloods, and $2.48 for the three-quarter bloods. These feed costs

(Continued on page 783)



Scrub cow No. 33. Average annual production 4,339 pounds milk and 183 pounds fat.



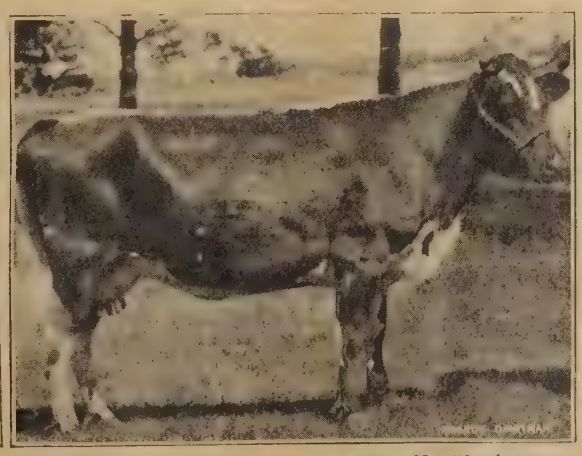
Half-blood Guernsey No. 87 out of Scrub No. 33. Average annual production 4,213 lbs. milk and 180 lbs. fat.



Three-quarter-blood Guernsey No. 236 out of half-blood Guernsey No. 87. Average annual production 6,346 lbs. milk and 320 lbs. fat.



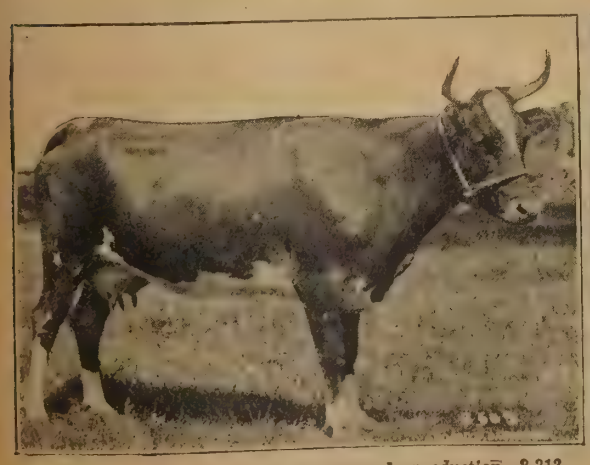
Scrub cow No. 56. Average annual production 3,375 pounds milk and 193 pounds fat.



Half-blood Holstein No. 77 out of Scrub No. 56. Average annual production 6,956 pounds milk and 266 pounds fat.



Three-quarter-blood Holstein No. 233 out of half-blood Holstein No. 77. Average annual production 12,818 lbs. milk and 486 lbs. fat.



Scrub cow No. 60. Average annual production 3,313 pounds milk and 178 pounds fat.



Half-blood Jersey No. 241 out of Scrub No. 60. Average annual production 6,138 pounds milk and 349 pounds fat.



Three-quarter-blood Jersey No. 348 out of half-blood Jersey No. 241. Average annual production 6,592 pounds milk and 323 pounds fat.

TWENTY-EIGHT YEARS WITH SWEET CLOVER

TWENTY-EIGHT years ago when Frank Coverdale began experimenting with sweet clover in Clinton County, Iowa, he was threatened with violence and injunction and called a fool by some of his neighbors. Today he owns 736 acres of splendid land in this and a neighboring county. He started with 80 acres which his father gave to him when he was 24 years old. He lives in a very fine modern home in a nearby county seat town. He has not made his money by buying and selling land. To the best of my knowledge his present property is all paid for. His farms are better than when he came into possession of them. He is having little difficulty with his five tenants.

A true narration of how this man has accomplished these things involves: first, the desire and ability of a man to seek after improved knowledge—to refuse to be discouraged—to be patient and long suffering—to be a close observer of the things about him and to apply the results of these things directly to his farming operations; second, sweet clover; and third, the evolution of a system of farming that has made money and that will leave the farms better for this man having owned them.

Mr. Coverdale is a great student and a close observer of things about him. He wanted his farms to produce more than average. In order to do this he recognized that he must obtain and apply more than average knowledge. Being of a rather determined English extraction he struck back at the neighbors who laughed at him 28 years ago. He did not strike back with caustic replies or with doubled fists. He struck back with hand, heart, and mind, using the weapons of faith in himself, determination, and improved knowledge.

His first observations on sweet clover were that it was a hardy plant and produced an abundance of growth. He next noticed that it stood drought well and was not killed out by severe winters. When he heard and read that cattle would not eat it he determined to weigh these statements with scales of his own. After a few years he began weighing sweet clover instead of other people's statements that were contrary to his experiences. He has been weighing sweet clover ever since that time, always adding a little knowledge through observation each year.

I have been on Mr. Coverdale's farms many times during the past four years. I have seen 75 bushels of corn on his side of the fence and 35 bushels just over the fence. I have seen a ten-acre field carry several cattle and 125 hogs to July first and then yield 50 bushels of sweet clover seed that netted $9 per bushel. I have seen 1½ tons of sweet clover hay per acre cut October first from a spring seeding of oats and sweet clover where the oats yielded 50 bushels per acre. That particular year an offer of $18 per ton was made for this sweet clover hay. The following spring I saw this same field carry so many cattle that many people came to see if it was really true.

How has Mr. Coverdale done these things? He has studied the fundamental things in soils and crop production and in feeding live stock and then applied the knowledge gained.

He has worked out what he calls his "system" of farming. This system begins with the selection of tenants for the farms. In considering a prospective tenant he takes him over the farms where the soil-crop-live stock system is being used. He makes the tenant see that if both are to make money the crop yields must be above the average. If the prospective tenant is satisfied that he can adapt himself to the "system", other things being satisfactory, he gets the farm, otherwise not.



Mr. Coverdale proudly exhibits a sample of spring seeded sweet clover. Picture taken Sept. 20, 1923. This field cut for hay later on yielded 1½ tons per acre. The tenant refused $18 per ton for the hay that winter.

The rotation is corn-oats-sweet clover. He has been using lime for a number of years because he learned that it paid both in crop yield production and the indirect benefit to young growing live stock because of the supply of calcium. He has never had a failure because of drought or hard winter on sweet clover seedings where there was plenty of lime in the soil.

He seeds his sweet clover in the spring with oats using from 12—15 lbs. of the biennial white scarified seed per acre and reducing the rate of seeding of the oats to about 2 bushels per acre. He prefers an early short strawed variety of oats because it gives the sweet clover a better chance. After the oats are taken off the sweet clover being thoroughly inoculated comes on in splendid shape. What he does with the crop in the fall depends on available labor and live stock demands. He may cut it for hay, pasture it, or let it stand. Perhaps one of the great reasons why he has made sweet clover valuable to him is that he has learned to utilize the crop to good advantage. I have heard him say on several occasions: "After a farmer has learned how to grow sweet clover successfully he is just half way because learning how to utilize the crop is of very great importance."

It is Mr. Coverdale's experience that sweet clover offers the greatest advantage for profit by being used as a pasture. As a soil builder it is unequalled except perhaps by alfalfa. One day I asked him what he considered were the outstanding qualities of sweet clover as compared with red clover. Here is what he said:

"The seed is cheaper and always will be. It will produce greater root growth and greater amount of forage. It will produce better in drought and it will withstand the winters much better. It will produce more seed. It has a higher feeding value. It will stand more abuse while pasturing. It is not so good as red clover when considered from the hay standpoint."

Mr. Coverdale buys all the limestone that his tenants will haul. Of late years they have been hauling a lot of it. When he can spend $75 for the limestone for a 20-acre field of oats and sweet clover and get from 1 to 1½ tons of hay per acre in the fall besides the oat crop and the hay crop $15 per ton, he considers it good business.

The only objection that I have heard any of his tenants make is that his "system" keeps them too busy all of the year. They are continually hauling limestone and manure and making hay. Some of this work comes at a time when the neighbors don't seem to have so much to do. This makes his tenants restless. He tells them that if they can't handle the "system" on the sized farm they are on that he will rent a part of the land and the "system" to someone else. They decide that it's good business after all to be busy all the year at something that pays.

By seeding some sweet clover each year the tenants are able to have plenty of green, succulent pasture from early spring to late fall. As soon as the second-year growth becomes mature and woody, the spring seeding is ready to be turned into. By turning on early in the spring on the second-year growth and by putting on plenty of cattle and hogs to keep the pasture down, good pasture is supplied until August. From here the cattle are turned to the new seeding. The old sweet clover stubble is then plowed in the fall for corn the following spring.

In handling sweet clover for seed the field is either pastured rather heavily up to June 15 to July 1 when the cattle are taken off or else it is clipped high about May 25 to June 15.

"It takes an expert and an artist to handle a seed crop right every time, and it can't be learned from books or bulletins. I have been growing sweet clover longer than anyone in this section and I still have a lot to learn about the sweet clover seed crop," said Mr. Coverdale when discussing this subject.

He believes that some special harvesting machine could be made that would eliminate some of the difficulties in handling sweet clover for seed. At the present time and on good land sweet clover may get so big that the ordinary grain binder will not handle it successfully. Just how much to pasture or clip and when to cut for seed are questions that offer a field for investigation.

Not content with utilizing the crop as a soil builder and as a feed for ordinary live stock, Mr. Coverdale has gone so far as to save the bloom. He is the worst crank on bees that I ever saw. He could easily talk all day to an interested listener about bees and sweet clover and forget about his meals. One year his bees produced 16,000 lbs. of honey. That winter he and Mrs. Coverdale went to Florida while the bees slept and the tenants took care of the live stock.

Some one has said that it takes a crank to move things. I know of ne better or more successful sweet clover crank than Mr. Coverdale.

Scrub Bulls May Get Legislative Ax

The methods used by different countries and by different sections within countries to eliminate scrub bulls have much variation in their character.

A recent communication from a subscriber, Sean O'Duinn of Rotterdam, Holland, tells of a proposed method that is likely to become effective in the Irish Free State, the purpose of which method is to wipe out the scrub bulls. It is proposed in a pending bill to make it unlawful for farmers to keep bulls except they be authorized by license or permits granted under the Act. The more important parts of the proposed bill follow:

Section I of the Irish Free State Live Stock Breeding Bill introduced by the Free State Minister for Lands and Agriculture (Mr. P. Hogan) in October, 1924, states: On and after the appointed day it shall not be lawful for any person to keep or have in his possession any bull to which this Act applies save in so far as such keeping or possession is authorized by license or permit granted to such person under this Act.

Section 3 reads: The Minister may refuse to grant a license under this Act in respect of any bull which appears to him; (a) to be calculated to beget defective or inferior progeny, or (b) to be of a breed or type unsuitable for the district in which it is kept, or (c) to be affected by any contagious or infectious disease, or (d) to be affected by any other disease or defect prescribed as a disease or defect rendering a bull unsuitable for breeding purposes, or (e) to have been inadequately prolific.

Section 7 is the next important section and reads: The Minister may grant to any person on payment of such fee (not exceeding two shillings and sixpence) as may be prescribed a permit or license to keep or fatten off for slaughter subject to and in accordance with the prescribed conditions—a duly specified bull— to which this Act applies.

Section 12 provides that where the Minister refuses an application for a license under this Act, or is of opinion that a bull to which this Act applies is not suitable for breeding purposes—the Minister may in such case serve on the owner, reputed owner, or other person keeping or having possession of the bull—the subject of such application, license, or opinion—a notice in the prescribed form requiring such person within the time specified (not being less than seven days)—to do, at his own option, any one of the following things, that is to say: (a) to take out a permit under this Act in respect of the bull, or (b) to have the bull slaughtered, or (c) to have the bull castrated.

This Act shall apply to all bulls of such age as shall be prescribed for that purpose by regulations made under the Act, that is to say bulls about the age of ten months and over.

The Minister further stated: "I am satisfied that the operation of this measure when enacted will be to increase both the quality and quantity of our live stock and live stock products." The bill as drafted can be made to apply to boars and rams without additional legislation.

Eighty per cent of the Free State stock raisers approve of the measure and it will become a law before the end of this year. It means in effect that about 30,000 scrub bull funerals will take place in the Irish Free State during the coming year. Thereafter no Irish farmer, without being duly licensed to keep such bovine-impoverishing stock, may retard the prosperity of his brother farmers and handicap the well being of the community and the state by keeping scrub stock.

The Humble Origin of a Dairy Breed

J. B. BAIN, WASHINGTON, D. C.

(Continued from last week.)

THREE years after the settlement of Jamestown, Va., in 1607, Champlain established a settlement at Quebec, Canada. This was followed in 1625, by settlers taking up land along the lower end of the St. Lawrence River, and five years later cattle were being imported from Scotland. It became a common practice for Scotch vessels to bring over a few Scotch cows to furnish milk for the use of the passengers during the voyage, and then to sell the cows upon arriving at Quebec or Montreal. This practice was carried on as late as 1821.

Breed Associations in Canada

Two distinct associations were formed in Canada. The popularity of the breed made it necessary for the breeders to establish a herd book in order to keep the breed pure. Steps were taken in 1870 to open up a "Written Record of Pure-bred Ayrshire Cattle and their Descendants" under the supervision of a "Committee of Ayrshire Importers and Breeders". Out of this organization grew the Ayrshire Importers' and Breeders' Association of Canada, which published the first volume of the herd book in 1886. Only animals were admitted which were "well known to be pure-bred Ayrshires, tracing to imported animals from reliable Ayrshire breeders". The volume contained the names and pedigrees of 970 males and 1,827 females.

The Ontario Ayrshire Record registered stock as early as 1872. The registration held to the standard of four crosses for a female and five crosses for a male. This practice was continued until 1881, when the first volume of the herd book was published. Other volumes followed before the two Canadian associations were united.

These two associations were amalgamated, and a meeting was held in March, 1898, to revise the constitutions to cover the new association. The members of the two original associations were considered to be the original members of the amalgamated association.

The breed obtained a good foothold in Canada and was there developed along the lines found in Scotland. Ayrshires were popular in America, but for a time did not keep pace with the other breeds on account of their short teats. In Scotland and in Canada the women did the milking and did so by stripping with thumb and forefinger; whereas in America men did the milking, and the American farmer wanted a cow with teats of such size that he could milk them by grasping them with the whole hand.

Importations to the United States

H. W. Hills, a merchant in New York, is supposed to have made the first importation of Ayrshires into the United States. His importation was made previous to 1822, and consisted of but two animals; a cow, Jenny, and a bull, Eclipse. It is recorded that in 1822 he sent the two animals to Hezekiah Hills, who lived at Windsor, Connecticut. One of their famous descendants was the cow known as "Old Cream Pot". She was half Ayrshire and half Shorthorn, and was credited with giving 36 pounds of milk per day, which made 18 pounds of butter per week.

W. S. North, as chairman of a committee appointed by the New York Agricultural Society to investigate the various breeds of neat cattle, made a report to the society in 1838. The committee brought in the following report concerning the breed: "The Ayrshire breed is also said to feed kindly and profitably in districts where others could not be made to thrive at all, uniting to a greater degree than any other breed the supposed incompatible properties of yielding a great deal of milk and beef. They are newcomers, but bring with them a good report, and if they maintain the same excellent character for the dairy in our warmer climate, which they have gained at home, they may become the favorite stock of the country; though it is more than probable that when transplanted from their moist climate and poor soil to our warmer climate and richer soil, they will lose their superiority as milkers and begin to accumulate flesh."

The introduction of the breed probably received its first real impetus in 1837, when the Massachusetts Society for Promoting Agriculture imported a bull and three cows. These animals were placed in the hands of various farmers, including Honorable Daniel Webster.

In the same year, J. P Cushing imported four cows, Flora, Venus, Cora, and Juno. Flora had a private record of 7,728 pounds of milk in a year; and Juno had 5,307 pounds to her credit.

Again in 1845 the trustees of the society decided that they could best promote the interest of agriculture and the wants of the farmer by appropriating the income of the society to the improving of the dairy stock. Therefore they sent Alexander Bickett to England to get some Ayrshires and North Devon cattle, since they thought those kinds were best fitted for the country.

In October, 1845, Mr. Bickett arrived in Boston with four Ayrshire cows and one bull, and with four North Devon cows and a bull of that breed. All the stock was taken to a farm near Lexington except one Ayrshire cow which died soon after calving. The importation of the ten head cost about $2,500.

A noteworthy private record was held by the Swinley cow which was imported in 1839 by George Randall. Her owner writing in 1841 stated that she calved the last day of March and during the month of April made a record of 43 pounds and 6 ounces of butter, and followed it up during the month of May with a production of 42 pounds and 4 ounces. In September of the same year, according to the statements of her owner, she made 5 pounds of butter in 4 days and her milk averaged 25½ pounds per day. According to the present 85 per cent rule for computing butter from butterfat, her milk would have tested a little over 4.1 per cent.

In 1846 John O. Colt of Paterson, New Jersey, imported a bull and three cows. These animals were typical of the breed and especially chosen for their qualities. The bull was a prize animal and cost 40 English pounds in Ayrshire, Scotland. The cows cost 20 pounds (about $97) apiece, and while they were on the voyage to America two bull calves were born.

Early Records in America

One of the best early official records supervised by the Ayrshire Breeders' Association was made in June, 1885, when the cow, Dutchess of Smithfield No. 4256, was tested for quantity of milk for a week. This cow was of the old type of New England Ayrshire and is described as being a deep-bodied cow having a large udder with long teats. She was red and white with the two colors about

(Continued on page 784)



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TOP NOTCH

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EDITORIAL COMMENT



RESOLUTIONS FOR THE NEW YEAR

Happy New Year to all readers of Hoard's Dairyman! May prosperity come to each of you, and with it greater contentment and the satisfaction that comes with work well done.

To help achieve this end, Hoard's Dairyman will attempt to do its part. We have in prospect many articles that we believe will assist our readers to lift themselves to a higher plane of efficiency. We shall soon commence a new series by Professor W. J. Fraser whose "Most Milk Per Acre" and "Ever Failing and Never Failing Pasture" have, perhaps, aroused more comment and accomplishment than anything published on farm topics the past two years. The new discussion will run through the late winter and spring issues of Hoard's Dairyman. It is entitled, "Efficient Feeding from Economic Crops", and the title is descriptive of the practical presentation of the principles that lie at the fundamental foundation of dairy farming.

The first of the new series, which starts in our January 16th issue, will discuss three fundamental principles of dairy feeding which must be measured by the yardstick of economy if the greatest profit is to be returned. These fundamentals, as stated by Professor Fraser, are:

1. Fit the ration to the cow.
2. Fit the crops to the ration and the farm.
3. Fit the crops and the ration to the labor.

This states the problem, and to its solution we shall offer the best we can give and secure. It not only involves feeding the cows and the growing of the right kinds of crops suitable to the cow and practical to the farm, but there are further problems in breeding, disease prevention, building, marketing, poultry husbandry, women's work, and the many other intimate questions confronting the dairy farmer and his family. We shall try to fulfill the trust and responsibility placed in us, and in this we ask the co-operation of every reader of Hoard's Dairyman.

Our New Year's resolution is: To assist in every way possible to increase the efficiency of the dairy farmer in the production and marketing of his products, to the end that the farm family may have a better home and a higher outlook on life. To this we dedicate ourselves for 1925.

GOING TOO FAR WITH LEGISLATION

In another place in this issue we are publishing parts of a communication from a subscriber in Holland who tells of a proposed bill now pending in the Irish Free State, the purpose of which is to eliminate scrub bulls through legislative enactment.

We believe in the elimination of scrub bulls as rapidly as possible but we do not believe that a government should go so far and assume such a large share of the responsibility as will be the case should this bill become a law.

It should always be remembered that there are scrub dairymen as well as scrub bulls. Unfortunate as this condition is, we do not see why nor how the government will better serve the people in performing the functions of government by forcing a scrub dairyman to keep a good bull on his farm where the obvious result would be that this bull would be entirely out of harmony with his surroundings. Not until the dairyman himself improved his abilities to handle dairy cattle would there be a possible chance for the bull to render a service in keeping with his potential abilities for improvement.

The starting point for dairy cattle improvement is from the individual herd owner and breeder up and not from the government down. It should be the function of government to safeguard the opportunities for dairy cattle improvement in every way possible. But it should not be the function of government to undertake to guarantee a successful dairy improvement program by forcing certain inefficient dairymen to do something that they are not qualified to do.

It would be just as logical to expect the same degree of success from a law that sought to compel all dairymen to be successful and if they were not to impose certain penalties, as it is to expect a government to bring about improvement of the industry by forcing scrub dairymen to take good bulls.

Successful government, successful business, successful agriculture, successful dairying are made so because of the moral upstanding, the ambition, and the action of the individuals connected with them.

It is a mistake for the people of any country to attempt to escape their full responsibilities by asking the government to assume too large a share of the burden of guaranteeing success.

WHAT OF 1925?

The worn and disfigured calendar for 1924 has been taken down and in its place appears the unwritten record for the coming year. The hopes and fears, the successes and the failures, and the joys and sadness of the past year are now history.

We entered 1924 with a period of rising prices for dairy products, but it was not long until prices declined and they failed to recover until nearly the close of the year. Production increased, reaching its highest point in July, a month later than usual. Imports came in and helped to cause prices to sag. With all this came increased feed costs for those who must buy, and there were many who said, "Dairyin' don't pay". It is always so. If we want to, we can submerge ourselves in the blue sea of despondency. "Misery loves company", but the misery of the other fellow is nothing as compared to our own—at least we so gather when we talk to groups of men in different walks of life. Retailers, manufacturers, publishers, laborers, farmers—all complain bitterly and loudly. There seems to be a mutuality in every group as it considers its troubles, but—and for this we are grateful—there is also mutuality when we commence to count our blessings.

We believe business and farming is just getting over its spree of fault finding and discontent. We hear less of it and all appear to look to the future with the faith that is "the substance of things hoped for". Dairy farmers have good reason to look to the future with faith and hope, and their faith can be realized and their hopes come true in 1925 if they meet the issue with courage and understanding.

Why do we have faith in dairying?

The per capita consumption of dairy products is increasing in the United States and the signs point the same way in Europe as the war-torn countries get onto a more stable foundation. Our butter consumption is now back to its pre-war level, 17 pounds per capita. Consumption of whole milk has increased in six years from 43 gallons per capita to 53 gallons; while cheese, condensed milk, and ice cream have shown fair to good increases. Since 1900, total consumption of dairy products has increased from 67 billion pounds milk equivalent to 110 billion pounds, or a 65% increase. In the same period the number of milk cows has increased less than 20 per cent. Not only has the total consumption of milk and milk products increased by reason of increased population, but even more significant is the fact that the per capita consumption has increased from 776 pounds of milk equivalent ten years ago to 998 pounds in 1923. Definite figures are not yet available for 1924, but there is every indication that consumption is on the increase.

Not only is domestic consumption of dairy products in a healthful condition, but the foreign outlook is better than for some time past. European herds were quite largely dispersed during the war and it will be years before they get back to normal. Sweden is a good example of this. She sold her cows during the war, with the result that her exports of butter dropped from 43 million pounds to a scant two million. This condition is even more true of Russia and practically all European countries except Denmark. The effect of greater stability in Europe was first shown in England, where imports of butter have increased over the pre-war period. Germany's import dropped from 111 million pounds to three million, but during the last month or two her imports have returned to pre-war levels. We now see a reversal of conditions existing last summer when our domestic markets were flooded with imported butter, while today we are on an export basis.

C. W. Larson, Chief of the U. S. Bureau of Dairying, is authority for the statement that the Danish dairyman can undersell us and still make money, despite the fact he must pay ocean transportation when he buys American grain and pay an import duty of eight cents a pound on the butter he sends to New York. Chief Larson insists that this is not due to lower rates for labor in Denmark, for the Dane puts enough more hours on his cows so that his labor costs per pound butter are as high as those of the American dairyman. His advantage and his salvation are the higher production of his cows, due to feeding, weeding, and breeding.

Some American dairymen recognize this problem of efficiency in production, and they are not complaining so bitterly. They are making advances; as testimony, read the cow testing association reports as they appear from week to week. Note the increased acreage of legumes, the disposal of poor cows, the repair of separators, the purchase of farm and home conveniences, and the thousand and one things that indicate progress and prosperity.

A contemplation of foreign and domestic markets, as well as an apparent decreased domestic production just appearing, bring hope and faith for better things. These better conditions will avail the poor dairyman little, but the man who is efficient and keeps efficient cows will take renewed hope of the future.

The year of 1925 is full of promise for the American dairyman who will do his part.

WHY THE DIFFERENCE?

We attended a sale of registered cattle this fall where one man sold five head for $1,165 and another consignment of 22 head brought $1,272. The first consignment included a nine-year-old cow, a three-year-old, a two-year-old, a yearling bull, and an eleven months' old heifer. The second consignment included three yearling bulls, a two-year-old bull, eight yearling heifers, five 2-year-olds, and five others three to five years old. The first consignment contained three animals from untested dams; the second, six. The nine-year-old cow was the only one with an official record.

Why the difference? Why should one man receive an average of $233 for his consignment while the others fell just short of $58 in the selfsame sale? The cattle were all sold subject to a tuberculosis and breeding guarantee, and there was no great difference in the popularity of the blood lines or in the records to be found in the pedigrees.

The difference lay in the cattle themselves. The members of the first consignment were well grown and of uniformly good type. They were, moreover, in sale condition. Most of those in the second consignment were thin, many of the younger animals were half grown, and not a few of the lot were far from being good individuals.

There is not a profitable market today for poor cattle, and the man who sells such is lucky indeed if the price they bring is equal to the value of the feed they ate during immaturity. The time has passed, and fortunately so, when an animal will bring a fair price simply because it is registered. There is a market for good cattle. Good producers of the right type are in demand at fair prices and the man who hopes to sell profitably from his dairy herd, whether they be grades or pure-breds, will do well to recognize that fact.

Silo Filling Experience

HOARD'S DAIRYMAN:—For several years I have put up 500 tons or more of silage per year without tramping it. Occasionally I send someone into the silo while filling so as to mix or scatter the cut corn. When filling is complete, I keep track of the condition of the top part of the silo. If the silage gets hot, I wet it down and keep it well packed. It will need this attention for several weeks after filling.

Escondido, Calif. R. T.

Garlic Flavor in Milk

I would like to know if there is anything to be fed to a cow or put in milk to do away with taste and odor from garlic or wild onions and at the same time that will not affect the value of the milk.

Roswell, Ga. W. O. S.

There is nothing that can be put in milk to overcome flavor of garlic or wild onion. The best way to prevent garlic flavor in milk is to keep it out.

This at the start would seem quite difficult, for garlic or wild onion is quite common in some pastures. In pastures where garlic occurs only in small patches the patches should be fenced off. These small areas can then be pastured with animals not producing milk such as young stock or sheep.

Occasionally there is a pasture in which garlic is scattered all over the field and in such it is impossible to keep the cows away from it. Prevention of the objectionable flavor in milk, or at least reducing it to a minimum, may then be accomplished by taking the cows from this pasture at least four hours before milking them. For example, allow the herd to graze in the garlic pasture in the forenoon. At noon turn them into a pasture free from garlic. If such is not available then keep the cows in the barnyard until milking time. This procedure prevents the cows from eating very much of the garlic and allows time for it to work off before they are milked in the evening.

Export Better Butter

HOARD'S DAIRYMAN:—"Sooner or later the price of high grade butter will be regulated by its fat contents.

"If some large manufacturers of butter, such as the centralizers or a group of co-operative creameries, as the Minnesota Creameries' Association, would be willing to look a little ahead and make up their minds to export butter at a price attractive to English buyers, they could relieve the present marketing situation."

These are two opinions of E. R. Balzer, field manager for Bordens Farm Products Company, incorporated. Mr. Balzer made these statements during an interview with the writer.

"The topsy turvy conditions of the market continue," said Mr. Balzer. "There is no question in my mind but that the trade is undergoing a change. Not only in the manner of handling the product, but also in the manufacturing of it. I have stated before that the price of high grade butter will be regulated by its fat content. I am more convinced than ever that this will be the case, and perhaps it may come sooner than we expect."

Mr. Balzer called attention of the writer to the fact that during the last year and the first five months of this year, the United States was a heavy importer of butter. He said that now it looks as if we would have to find foreign markets to relieve us of our surplus.

"I believe that the remedy which the trade has tried—namely lower prices—is but a quack remedy," said the manager. "The consumption of butter all over the country is good, and in my opinion the consumer cannot take care of any more butter regardless of whether prices are cut still further or not.

"There is no doubt in my mind but that the sweet cream butter, so largely advertised by the Minnesota Association, could be made to compare favorably with the Danish product and therefore become a competitor of the Danish butter on the English market. But it would take missionary work to do it and a sacrifice in the matter of price. How much better would be the industry in this country if we could export sufficient quantities, even at a lower than domestic price, to relieve the pressure at this time. If something like this is not done, a gradual shrinking in current prices will occur as well as a corresponding increase of loss on storage butter," said Mr. Balzer.

Mr. Balzer asked why the London market should pay 49 cents for Danish butter when the so-called best American butter sold at about 40¼ cents, even lower than Canadian and considerably lower than New Zealand and Australian butter? He said that in trying to answer this question he interviewed quite a few houses in the trade, amongst these being some exporters and also the market reporter.

"What I learned really astonished me," said Mr. Balzer. "The American shipper has not yet learned the lesson which exporters of other commodities have been compelled to learn, that he must furnish the kind and quality of goods which his customers want. Every salesman knows that before he can get his prospective customer interested, he studies his requirements and caters to them.

"I cannot understand, then, why we blind ourselves and refuse to treat foreign customers in the same manner. I was told that at least five cars of American butter were rejected recently in London. It was all on account of weak body and excessive moisture.

"Now, everybody who claims to be in the butter business should know that England has a moisture standard of sixteen per cent. Why in the world any manufacturer of American butter wants to send butter to the other side without knowing what they require there is beyond understanding. I further understand that considerable lots of butter have been sent over which are poor in quality. Such butter, of course, comes in direct competition with the Siberian butter which is of average low quality and can be laid down in London considerably cheaper than our American poor butter," he said.

It was the opinion of Mr. Balzer that instead of sending to the foreign market at the present time butter to compete with the best Danish grades, the American exporter seems to believe that the European buyers have to take what he sends them regardless of whether the buyers want it or not. He said that the result is that instead of improving the bad reputation of American dairy products, the exporters are doing their best to live up to our reputation of being the shippers of poor grades.

"I have repeatedly gone on record that we can make just as fine butter in America as they can in Denmark," said Mr. Balzer. "I still claim it, but the trouble is that we do not want to make that kind of butter. We are still blinded by the 80 per cent fat law. The manufacturer wants to only make such goods as he can get by with. I would like to see the day when the Twin City Association will take the lead in manufacturing butter regardless of the fat content, producing just the same waxy product as the Danish butter.

"While in the beginning this will probably give a lesser net return to the farmers and members of the association, in the long run it will be a great big advantage. It will not take long to build up a reputation for such butter, so that it can be sold at the price fixed by the manufacturer, regardless of the quotations of any market in the United States."

Minnesota. Q. C. WILSON.

Barn Disinfection

While I have found many articles upon the subject of tuberculosis and the desirability of testing cows in your valuable paper, I have been unable to find any article on the method of eradicating the germs from the barn and surroundings where tuberculosis has existed. What should be done?

Pennsylvania. SUBSCRIBER.

Dr. A. T. Olson, in charge of Area Test Work in Wisconsin, has given us the following reply to the above inquiry:

In the work of tuberculosis eradication, one of the greatest problems and the most essential angle of the work is the proper cleaning and disinfecting of the barn and premises after diseased animals have been removed.

The percentage of the herd found infected is believed by most laymen to be a fair index as to the extent of the cleaning and disinfecting necessary to make a barn safe for the stabling of the remainder of the herd.

Post mortem examination very often reveals that, although a single animal is found to be infected by the test, it may show extensive lesions and from all indications has been capable of spreading infection about the barn and premises. When a larger percentage of the herd reacts to the test, the chances for infected premises are still greater and leave no other safe course than that of attempting to remove the infection by applying the proper methods of cleaning and disinfecting.

In this event, it is unsafe to introduce clean animals until the exposed herd has been subjected to a retest, unless it is possible to keep them in isolation until such retest can be applied. In case a whole herd is diseased, or a sufficient high percentage to warrant the removal of the entire herd, a barn may be cleaned and disinfected in such a way as to be able to safely admit cattle shortly after the work has been done.

An undertaking to rid a barn of tubercular germs and make it safe for the stabling of clean cattle consists of:

1st. Remove all manure and filth from the barn and barnyard, stalls, mangers, floors, water tanks, drinking cups, etc., and thoroughly soak them in order to remove the hardened particles of filth and manure. All decayed and rotten boards should be removed and destroyed.

2nd. The surfaces should then be scrubbed with a solution of concentrated lye, using a long handled stiff brush, so that the solution does not come in contact with the hands of the operator.

3rd. The barn should be sprayed with a solution of a good disinfectant, using a spray with sufficient force to reach all cracks and corners. A 30-to-1 solution of any disinfectant containing at least 50% cresolic acid should be used. If, however, it is impossible to secure this, a substitute such as crude carbolic acid or any permitted disinfectant may be applied. Any of these may be obtained through your local veterinarian or druggist.

The use of some disinfectant in the form of a spray is recommended chiefly as a safety measure in reaching places which may be harboring infection and almost impossible to reach with a brush and solution of concentrated lye.

4th. In cleaning the barnyard, all manure piles should be hauled out and scattered lightly over the field, and a common road grader used to scrape the surface of the yard down to solid ground. Mud holes should be cleaned out and filled in with new soil or gravel, which should also apply in the case of barns with dirt floors.

5th. All cleaned and disinfected surfaces, including the barn floor and yard, should be sprinkled with unslaked lime.

In a number of instances, entire herds have reacted to the test, with a large percentage showing extensive lesions on post mortem. The barn and premises were thoroughly gone over according to the above directions, and cattle housed in the barn the following winter, with the result that a reactor was rarely found on follow-up tests.

There are many cases that could be sighted in emphasizing the value of a general and thorough cleaning and disinfecting, after reactors have been taken from a herd.

In one instance, the owner of a herd of forty head of cattle introduced three cows which were allowed to remain in the herd for three or four months. When a test was applied these three cows reacted, two of which proved to be advanced cases. The owner not being thoroughly convinced that the infection might be hidden somewhere in the accumulated barn filth, insisted on passing it by lightly, with the result that fifteen of the remaining thirty-seven head reacted on the retest. The barn and premises were then properly cleaned with the result that later retests have revealed no further infection.

Another occasion in the same county, two valuable herds were subjected to the test. In one case, the entire herd reacted and showed extensive lesions on post mortem; the other herd passed clean. The owner of the infected herd became discouraged and decided that he would have no further use for his drinking cups, so he caused them to be removed from his barn and they were later sold to the owner of the clean herd. Sometime later, a retest was applied, and four reactors were found in the formerly clean herd, all showing slight lesions on post mortem.

The owner was at a loss to know by what means the infection had found its way into the herd, and finally recalled the drinking cup transaction. This barn was later subjected to a thorough cleaning, the cups were removed, cleaned, and scalded, and no further reactors have been found in the herd. The question arises, did the drinking cups convey the infection, or was it introduced in some other way? This may always remain a question, but the evidence is strong that it traveled the drinking cup route.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

W. D. HOARD & SONS CO., Publishers
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EDITORS
A. J. GLOVER, P. C. BURCHARD

General Manager - - - FRANK W. HOARD
Editorial Manager - - - A. J. GLOVER
Advertising Manager - - GEO. W. RANKIN
Subscription Manager - JOHN W. ROBERTS
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Junior Editor - - RUSSELL E. FROST

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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $3.00 including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Ohio Jersey Wins Gold Medal

Washington's Promoter's Florence, a Jersey owned by Alan N. Jordan, Ohio, commenced her second official test at the age of six years and three months and in 365 days she produced, with calf, 741.79 pounds fat and 12,959 pounds milk. She carried calf for 171 days of the test and her milk averaged 5.72 per cent fat. With this very creditable performance she qualified for a gold medal awarded by the American Jersey Cattle Club.—American Jersey Cattle Club.

Washington, D. C., Weekly News

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, Dec. 16—A committee headed by Dr. McKay came to this city for extended conferences with the officials of the Bureau of Chemistry and the Bureau of Internal Revenue relative to the present status of butter standards and definitions and the enforcement of existing laws. Since the Tilden Produce Co. case was decided by the U. S. Supreme Court to the effect that the Internal Revenue Bureau had no authority to make or enforce a ruling that 16 per cent of moisture in butter per se made that butter illegal, and subject to a fine and tax and penalty, this whole matter has been in confused condition. The law fixing an 80 per cent fat minimum standard is enforcible by the Bureau of Chemistry only as to interstate commerce. The moisture content of butter, a surplus of which makes butter "adulterated" and subject to an internal revenue tax, has been subject to so much uncertainty as to cause much confusion. A case in point was the recent export shipments which were seized in England for high moisture content, causing the shippers much trouble.

The task of reaching a conclusion satisfactory to a big majority of the trade is a very large one, and Dr. McKay and his committee is here at work on this. Both the big bureaus named, the Bureau of Chemistry of the U. S. Department of Agriculture, and the Internal Revenue Bureau of the U. S. Treasury Department, have put their best men at the service of this committee. The objective is a law, rule, or decision that will tell exactly what butter is, what adulterated butter is, what renovated butter is, bring all three trades under specific and clear cut administration, without hardship for accidental violations, covering both interstate and intra-state traffic, and not interfere with the present satisfactory administration of the oleomargarine law by the Bureau of Internal Revenue. With all the talk about the accomplishments in other industries, the benefits of standardization, and the elimination of waste, it is not likely that there is a single accomplishment in the whole of American industry which ranks in importance, amount of money involved, or technical difficulty with the task which this committee of the butter industry has undertaken.

Dr. McKay points out that the job is only well under way. "We hope for success" is the way he puts it. He points out that the sole object of the work is to bring about a fair condition in the butter trade where honest effort by big or small producer can have the equal chance of success and profit. The presence of representatives of all kinds of creameries on his committee is the evidence of this.

⚜

The Bureau of Dairying has produced a new dairy story "Weighed and Found Wanting" which had been filmed by the motion picture section of the Extension Service of the Department of Agriculture, and was shown here for the first time at a big public gathering at Central High School auditorium one night this week.

⚜

The U. S. Department of Agriculture is very busy at this time in checking up the known facts about the mysterious outbreak of a new and hitherto unknown poultry disease which has developed among shipments of poultry to eastern markets, and caused New York to place embargoes on all shipments from eight midwestern states. The disease is said to be "European Poultry Plague". The mortality reported in some shipments has reached 60 per cent of all the fowls in a car en route from Chicago to New York. Dr. Buckley, head of the division of Pathology of the Bureau of Animal Industry, is in charge of the investigation.

Dec. 23—This outbreak of an epidemic poultry disease has resulted in bringing to public attention the absence of any adequate law under which federal officials could establish quarantine or take other effective steps to stamp out any disease in the poultry industry. There were laws under which the Department of Agriculture could move swiftly and effectively in cattle disease epidemics, but none for poultry diseases. As a result, Dr. Mohler, chief of the Bureau of Animal Industry, and leaders of the poultry industry organizations asked Congress last week for a small appropriation, and for adequate authority to deal with this epidemic. The case was taken to the President and his approval secured, then that of the Budget Bureau, and on Friday the Senate passed the bill by, unanimous consent, and the following day the House passed it. It so happened that there was sufficient money in the foot and mouth disease fund, ready to be used, only requiring this congressional authorization, so with the signing of the bill on Monday, Dec. 22, federal quarantine, inspection, and condemnation proceedings became effective, for the control and eradication of this poultry epidemic. The department will operate on the same basis that it does in a foot and mouth epidemic, with the right to seize and destroy all infected poultry found, quarantine states or counties, prevent railroads from moving cars believed to be infected, and take all other necessary steps to prevent the spread of disease and danger to the whole country.

⚜

A Washington organization, largely maintained by one man, has been active for some years in presenting a series of advertisements in the local newspapers, warning the public against alleged danger of using any milk products not made from pasteurized milk or cream. In some instances the statements made in these advertisements have bordered on sensationalism, but because of the high character and apparent good purpose of the work, no public criticism has been made by dairy interests. Within the past week, however, there was a case in which the advertisement seemed to charge that a number of cases of typhoid fever in the District of Columbia might be caused by eating butter made from unpasteurized cream. The advertisement did not say this in plain English, but the headlines and the context were taken by many to mean this. As a result a prompt denial was issued the following day by the Health Officer of the District of Columbia that there was any typhoid fever here which could be traced to butter or to any dairy products. Later on the Health Officer, Dr. W. C. Fowler, told your correspondent that he greatly regretted this advertisement, and had remonstrated with Mr. Berliner, head of the association which published it. "I have never had a shred of evidence presented to me," he said, "to indicate that butter had carried typhoid infection. If I had such evidence I would not hesitate to tell the facts to the public and take steps to safeguard the public, but I have no such evidence. It is unfortunate to have statements like this advertisement, published to disturb and frighten the public."

⚜

The International Institute of Co-operation, promoted by the National Federation of Co-operative Milk Producers, is to be incorporated here in the District of Columbia. The latest big organization to join is the Farmers' Co-operative Elevator Association.

Paris Milk Values

HOARD'S DAIRYMAN:—No longer will "skimmed milk masquerade as cream". For months past the Paris dairymen have fallen foul of the customers owing to their having palmed off skimmed milk as the half-skimmed article, while the cream has long been suspiciously thin. To do away with these reprehensible practices, the Minister of Agriculture has evolved three labels which are to be affixed to the receptacles containing the milk, the fluid being labelled according to the amount of cream it contains. The legend *"lait ecreme"* in snow white letters on a bright blue ground shows that the contents of the vessel have been skimmed, while the word *"lait"* in huge yellow lettering against a vivid red background is reserved for unskimmed milk. *"Lait demi-ecreme"* (green letters on rose paper) indicates that the milk has only been half-skimmed.

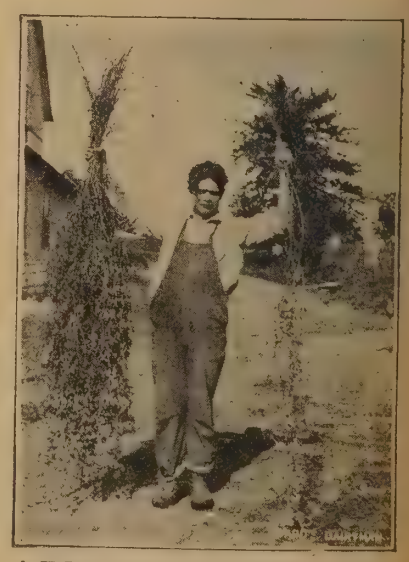
No doubt the scheme will prove extremely beneficial when the labels are affixed to the cans and bottles for which they are intended. Up till now, however, there has been some confusion owing to the pure milk label occasionally having adorned the skimmilk can. . . . . Fortunately, the customers are keeping their weather eye open.

France. GEORGE CECIL.

New Virginia Champion

Dijkstra Vale Pontiac Girl is the new state champion for one year's production as a senior three-year-old with a record of 19,661.2 pounds milk and 693.24 lbs. butterfat—equal to 866.5 pounds butter, made in the herd of H. L. Butler & Sons. This cow also holds the state's highest yearly record for junior two-year-olds with 828.7 pounds butter, and is a half sister of Dijkstra Pontiac Jeanetta, Virginia's champion cow for production in ten months as a senior two-year-old.

Uncle Ab says the best estate a man may leave is a pleasant memory.



A HIRED MAN WITH GRIMM ALFALFA TAKEN FROM CLOVER LAWN FARM OWNED BY JOHN PULS, WISCONSIN

Most hired men like alfalfa much better when it is only one or two feet long, but this chap is not afraid to take hold when it is six or seven feet long. The bigger the crop the better he likes it.

Field Comparisons of Legumes

Medium Red Clover, White Sweet Clover, and Mammoth Clover Compared as Green Manure and as Hay Crops

CHAS. H. CRAWFORD, Ohio Experiment Station

LEGUMES, as nitrogen gatherers, are the farmers' most valuable crop. As a feed for live stock they are indispensable, and as soil builders their value is being appreciated more each year. At times, however, the best way to utilize the crop becomes a question.

Acting on the foregoing thought, the Ohio Agricultural Experiment Station has conducted tests on the Paulding County Experiment Farm, near Paulding, Ohio, to compare the value of medium red clover, white sweet clover, and mammoth red clover, as green manure crops and as hay crops; and, in addition, to compare their effect on the yields of the cereal crops and upon the physical condition of the soil when used as green manure and as hay crops.

Experiments have been conducted with these legumes at the Paulding County Farm since 1918, and the results of their use in a rotation of corn and oats, both as a hay crop and as a green manure crop, are quite interesting.

Seven different plots have been devoted to these crops and their comparisons have been made under identical soil conditions. On one plot no legume was sown and no crop other than corn and oats was grown. On each of three other plots one of the legumes was sown and utilized as a green manure crop in the rotation with corn and oats. And on three other plots on which the same rotation was grown the legumes were utilized as a hay crop. The accompanying table shows in a comprehensive way the results of the six years' test.

Table 1—Yields by Years, in Bushels and Tons Per Acre

	Crop	1918	1919	1920	1921	1922	1923	Ave.
	CLOVERS UTILIZED AS GREEN MANURE							
No legume	Corn	27.1		47.4		28.6		34.4
	Oats		57.8		22.9		35.0	38.6
Medium red clover	Corn	37.1		46.4		49.4		44.3
	Oats		48.1		25.9		41.2	38.4
White sweet clover	Corn	42.8		53.3		58.4		51.5
	Oats		48.7		34.0		53.1	45.3
Mammoth clover	Corn	30.0		42.8		44.4		39.1
	Oats		53.1		25.4		46.9	41.8
	CLOVERS UTILIZED AS HAY							
Medium red clover	Corn		46.6			62.1		54.4
	Oats			45.0			36.2	40.6
	Hay	.84			1.64			1.24
White sweet clover	Corn		61.3			64.3		62.8
	Oats			57.8			48.7	53.4
	Hay	1.38			1.19			1.28
Mammoth clover	Corn		49.3			51.7		50.5
	Oats			54.3			31.9	46.7
	Hay	1.54			2.85			2.19

In each case a legume added to the rotation of corn and oats increased the yield of the cereal crop regardless of whether the legume was utilized as green manure or as hay. Further comparison shows that greatest yields were obtained from cereals when the legume crops were utilized as hay and, in addition, the hay crop furnished a source of income.

When figured in terms of percentage the legumes, when used as a green manure crop, produced an increase in the corn yield of twenty-eight per cent, forty-nine per cent, and thirteen per cent, for medium red, sweet, and mammoth red clovers, respectively. In like manner, when the legumes were utilized as hay the medium red clover produced an increase of fifty-eight per cent, the sweet clover an increase of eighty-two per cent, and the mammoth red clover an increase of forty-six per cent, with an average increase in the yield of corn of thirty-two per cent in favor of the latter method.

The average yields for the six-year period show, in each case, that the use of sweet clover in the rotation produced the greatest increase in the yield of the grain crops.

Not only did the addition of legumes to the rotation affect the yield of the grain crops, but they, also, effected an improvement in the physical condition of the soil.

On this rich, compact, alluvial soil of Paulding County, these legumes seemingly effected greatest improvement in the yield of crops and the greatest improvement in the physical condition of the soil, when allowed to grow as long as possible in order that the crop might be utilized as hay. This improvement being brought about, no doubt, by the greater development of the root system of the plants, and particularly the long, penetrating roots of the sweet clover burying themselves deep in the soil, breaking up, somewhat, the compact structure of the soil, and providing avenues for the movement of air and moisture.

The results of this comparison over a period of six years, on this farm, are quite conclusive, but their application to farms of a different character are left to the discretion of the operator.

Farmers' Short Course at Ames

The 1925 Iowa Farmers' Short Course at Ames will be held from February 2 to 6. Farmers' Week has come to be realized as one of the great agricultural events in the country and every effort is being expended to make further improvements in service for this year.

All phases of farming and home making receive their share of attention and the dairy farmers have a program arranged for each day of the week. As in previous years, emphasis for dairymen and prospective dairymen will be placed upon the problems met in economical production. Some time each day will be spent at the college dairy farm judging different animals and studying the management methods employed there.

On Thursday some features are offered. One of them is a lecture and demonstration on the abortion disease by Dr. C. H. Covault. Also a part of the day will be taken up with a report on the progress of the year's experimental work. Dean C. F. Curtiss will talk to the dairymen at that time. At noon the dairymen hold their annual banquet. Professor H. H. Kildee will address those at the banquet. In the afternoon will be held the annual meetings of the state dairy association and the different dairy breed associations.—EARL WEAVER.

"What do you expect to be when you become of age, my little man?" asked the visitor.

"Twenty-one!" was the reply.—The Progressive Grocer.



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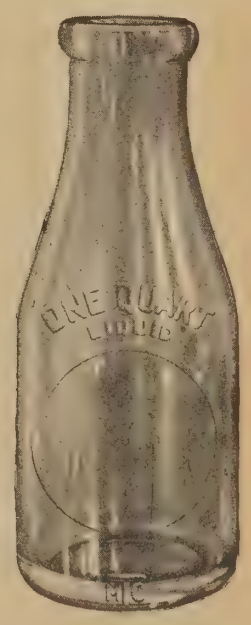
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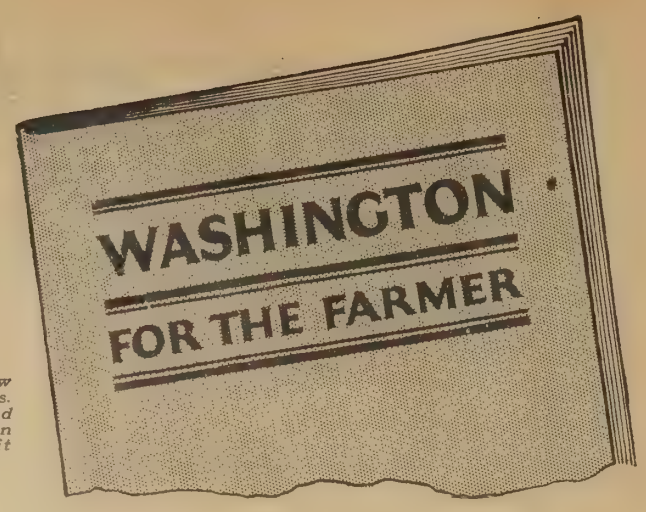
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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Minn.	N. Dak. Co.	Nov.	G. H.	63.6	Samels & Thelander
"	Jackson Co. 1	"	G. H.	77.2	Bauman Bros.
Calif.	Kern Co.	"	R. H.	93.8	E. Booth
Ind.	La Grange Co.	"	G. H.	58.3	A. Fought
"	Van.-Warrick	"	G. J.	66.7	W. Neidig
"	Dubois	"	G. J.	64.2	H. Rothert
Ohio	Licking Co.	"	R. H.	94.4	B. Dawes
N. Y.	Essex Co. D. I.	"	R. H.	88.7	West Bros.
Wash.	Pierce Co.	"	H.	150.3	Western State Hospital
Md.	Howard Co.	"	G. H.	68.0	J. C. Fleming
"	Middleton Val. Jr.	"	G. G.	49.4	S. Remsberg
"	Frederick Jr.	"	G. H.	62.7	M. Ramsburg
"	L. Montgomery	"	R. H.	59.7	S. Moore
Va.	Southside	"	R. H.	50.0	O. Moyer
Wash.	Grays Har.	Dec.	G. J.	77.6	Mrs. J. M. Hackett
Ill.	Lake Co.	Nov.	R.B.S.	72.1	Hawthorne Farm
Vt.	Cen. Orange	"	G.	64.3	H. Varney & Son
Idaho	Ada. Co.	"	G. H.	66.3	L. C. Burns
S. D.	Hamlin	"	G. S.	55.8	G. Trumm
Mich.	St. Clair Co. 3	"	G. H.	80.0	C. Radford
"	Cass Co.	"	G. G.	69.1	A. Alldredge
"	Manistee 1	"	G. J.	62.6	E. Niemitalo
"	Macomb 2	"	G. H.	68.1	W. Ball
"	S. Menominee	"	R. H.	45.3	Men. Agri. School
"	Branch Co.	"	G. G.	60.4	H. J. Coombs
"	Tuscola 1	Oct.	R. H.	54.6	Mich. Farm College
"	W. Antrim	"	G. H.	52.2	D. H. Brat
Wis.	Markesan	Nov.	R. G.	64.7	J. Pattee
"	Luck-Mill.	"	R. H.	62.2	A. Jepson
"	Eagle Pt.	"	G. G.	44.7	L. P. Martiny
"	Coon Val.	"	G. G.	64.7	A. Hammes
"	Leo. Pel.-Till.	"	G. H.	55.2	C. Vierbicher
"	Spr. Green	"	G. G.	48.5	B. Hayes
"	Lakefield	"	R. G.	77.5	Quincilo Farms
"	West Bend	"	G. H.	83.7	C. Klunke
"	Elmwood	"	R. G.	48.0	Wild Bros.
"	Maiden Rock	"	G. H.	59.9	M. Solveson
"	Ells.-Prescott	"	G. S.	57.0	C. W. Lantz

Association Notes by Testers

Northern Dakota County, Minn.: There are 31 members with 540 cows in this association. Of the 390 cows tested in November, 58 made over 40 lbs. fat, 13 herds averaged better than 25 lbs. fat, and three over 40 lbs. fat. The association average was 667 lbs. milk, 27.2 lbs. fat. Samels & Thelander Bros. also had the high herd which averaged 1,343 lbs. milk, 48 lbs. fat, a very good average for a herd of 16 cows. Twenty-seven members have silos, 26 feed some legume hay, 28 herds are headed with pure-bred sires, 15 herds tested for tuberculosis, and 16 members have drinking cups in their barns. Members are trying to produce feed and milk at a profit this year, which is very hard with the present prices of grains and mill feeds.—L. L. Hammond.

Jackson Co. No. 1, Minn.: Three herds were tested for tuberculosis. One feed grinder was installed. One new milking machine was put into satisfactory use. More bran is being used this year than last. The creamery paid 48c per lb. for fat in November. —C. W. Meyer.

Dubois, Ind.: At a meeting of this association, it was decided to hold monthly meetings with discussions. In November market milk sold for $3.00 per cwt. Fat in sweet cream brought 43c per lb., ice cream. 65c. Milk retailed for 12c per quart, butter 50c per lb.—R. C. Carter.

Licking Co., Ohio.: Two Illinois buyers purchased a carload of Jersey cows in this county and expect to return for a car of heifers in the spring. A seven-day record was made on the B. G. Dawes farm with a registered Holstein producing 585 lbs. milk, 28 lbs. fat. In November market milk sold for $2.50 per cwt. and retailed for 12c per quart.—J. O. Froelich.

Essex Co., D. I., New York: This association finished the month of November with 28 herds on test, 184 cows tested. Twenty cows produced 1,200 lbs. milk, 40 lbs. fat. The lowest cost of fat production was made in the herd of P. G. Norman, 19c. The highest in the herd of James Harland, $1.69. The average price of mixed hay was $12.00 at the barn, alfalfa $15.00, concentrates $2.60 per cwt.—J. B. Fisher.

Southside, Va.: Sam Ashman & Son purchased a pure-bred Jersey bull, Nora's Spark of Homewood, out of a heifer with a 499-lb. fat record in class E. His herd was tested for tuberculosis and only one reactor found. Most dairymen in this section are getting out of the habit of feeding only bran and cottonseed meal as the sole concentrates. In November market milk sold for $3.93 per cwt. and retailed for 12—15c per quart.—C. A. Buck.

Grays Harbor, Wash.: Three new pure-bred bulls were added to the herds in this association. Olson Bros. have a pure-bred Guernsey that won first place at the Portland International Live Stock Exposition. In December market milk retailed for 12c per quart, butter 55c per lb. The cheese factory paid 48c per lb. for fat, the creamery 43c.—R. C. Burkhart.

Lake Co., Ill.: The average production for November was 668 lbs. milk, 25.45 lbs. fat, average cost of fat, 39.8c per lb.; number of cows in milk, 270; fresh 26. The Hawthorn Farm herd is now settled in its new home, another barn on the farm having been remodeled and equipped with a new milking machine and modern throughout, an extension built on to accommodate the herd since the destruction of the old barn by fire. The Ayrshire breed takes a prominent place in November's report, having three cows in the high list. One from F. C. Farwell's herd and two from Wm. McCredie's herd, these two herds also taking places among the high herds, Farwell's leading first and McCredie's second. Market milk sold for $2.40 per cwt. and retailed for 13—14c per quart. The creamery paid $2.60 per cwt. for milk.—E. A. Forman.

Hamlin, S. Dak.: Four herds were tested for tuberculosis and one reactor found. There are now eight T. B. free herds in this association. We lost one member having five cows, but gained another with seven cows. The creamery paid 35c per lb. for fat in November.—F. E. Hanson.

Manistee No. 1, Mich.: Five herds were tested for tuberculosis during the month. Drinking cups were installed by one farmer. Feed prices were very high which made it hard to sell sour cream for a profit. The average per cent fat for all cows in this association is 4%. In November market milk sold for $3.00 per cwt. and retailed for 10—12c per quart.—J. Mason.

S. Menominee, Mich.: One member changed bulls. A general slump in milk production during the month was due to change to dry feed and poor quality silage. In November market milk sold for $4.65 per cwt. and retailed for 10c per quart, butter 54c per lb. The creamery paid 41c per lb. for fat, the cheese factory 40c.—R. D. Maxon.

Branch Co., Mich.: Around 60 dairy-alfalfa meetings were held in a seven-day campaign with specialists from the Michigan Agricultural College. Bull associations are in order and with the help of the Agricultural College and County Agent Andrews it will be only a matter of a short time before at least one association will be in operation. In November the condensery paid $1.50 net flat per cwt. for milk. Butter retailed for 45c per lb., milk 12c per quart.—L. D. Kitchen.

Mocomb No. 2, Mich.: Two barns were remodeled and two farm homes improved to save steps and to bring more comfort. Eleven pure-bred Hol-

steins were purchased by four members. This is their first start with pure-bred cattle.—C. Blumer.

Coon Valley, Wis.: Dairy cows are increasing in milk production, corn silage and alfalfa hay being fed with home grown mixtures. One member installed drinking cups and also remodeled his barn. In November market milk sold for $2.23 per cwt. and retailed for 9c per quart, butter 45c per lb. The creamery paid 46c per lb. for fat.—W. H. Klahn.

Spring Green, Wis.: Two registered Holstein sires were purchased to replace old ones. Two barns were whitewashed. Several sales in the dairy market were made at fair prices. In November market milk retailed for 10c per quart, butter 46c—50c per lb. —A. F. Clump.

West Bend, Wis.: Of the 324 cows tested, 39 produced 1,000 lbs. milk and over; 37 cows 40 lbs. fat and over. The problem of barn feeding and the high price of concentrates confronts the average farmer. In November the condensery paid $1.92 per cwt. for milk, the cheese factory 46c per lb. for fat, and creamery 47c—W. Hansen.

Edinboro, Pa.: Twenty-five of the 26 members have silos, the twenty-fifth one just being completed last month. Seven members make butter, six ship milk to independent companies and 13 ship to the Erie Co. Milk Association. The milk situation is poor this winter and consequently the cows are not being crowded because the members do not care to produce much milk at the price they are receiving for it.—C. Eiseman.

Prefers Present Type Association

HOARD'S DAIRYMAN:—Have just finished reading the "Whatcom Plan of Testing" in Hoard's Dairyman. I like it somewhat better than the California style of testing but I think it will never come up to our old style association. The Weiser—Payette Cow Testing Association has raised the production 74 lbs. fat per cow in two years. Figured at the average price we are receiving for butterfat, this would amount to $33.30 per cow. It has put a pure-bred sire at the head of every herd. It has encouraged and helped plan for silos and barns, so that all but one member now have silos. Every year we have an excursion and a picnic. In the two years at least 70 cows were sold for beef. Many wasteful methods of feeding have been corrected and many hundreds of dollars have been saved the members by getting their separators tested and corrected.

The old style association seems to be very satisfactory here, for this association has grown twice its size in the last two years and another will have to be added next year. We have mostly small herds in this country and so as to make it cheaper we test two small herds in one day. If there are over 12 cows it takes one day. We charge $2.25 for a small herd and $4.25 for a large herd per month. We find it more satisfactory to charge by the herd than by the cow. Every member signs up for a year and the fees are collected through the creamery. This makes it very convenient and prevents any losses. Our expenses figure about $3.40 per cow for the year and I am sure where larger herds could be obtained it would run cheaper.

I find that in order that a tester can have much influence or give any advice he must stay with each member once a month and learn his methods and know all his circumstances. For instance, one cannot advise a member to build a barn or silo when he doesn't have anything to build it with or, if he has, how is he going to have any confidence in me if he doesn't know me? When I find a member that I know can't afford to build a barn, I help him to build a temporary straw shed. Many times I have helped to build mangers or feed racks. I have cleaned out the mangers and barns and cut holes in the walls to let in a little light.

Where we test two herds in one day, the tester stays at one place one month and lets the other member take his own samples. The next month he stays at the other member's place. But I find that the members that have the tester every month are the more successful and keep on testing year after year.

I have a plan in mind that would be very cheap and also very beneficial to the farmer if it could be worked out: Put all the members in groups of twelve and let every one of these members take one month out of the year and take the others' samples and feed records and send them in to the tester or have the tester come and get them and fix up the herd books. In this way a large number of cows could be tested at a very little expense and every member then could see the other fellow's methods and could profit a great deal by them. Also, the records would be authenticated. The tester could be centrally located and could make the rounds every so often and give advice and information wherever it is necessary. This plan would only take each member an hour or so each evening and morning for 12 days in the year. As all the members do not milk at the same time, it may be possible for him to take some other member's samples the same evening.

Idaho. CHAS. J. PRITZL.

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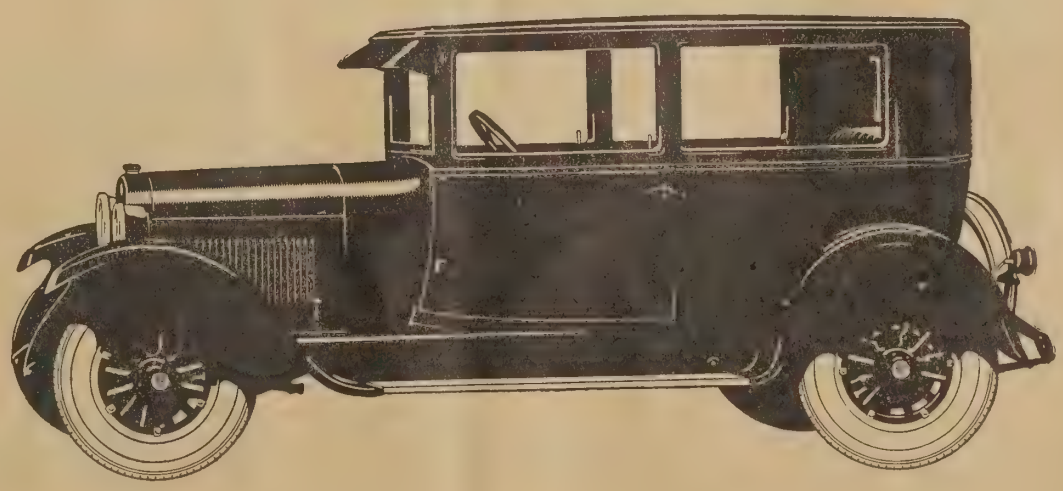
The new Coach reveals a characteristic maturity of design—in the low-swung lines of the body, in the arrangement of the interior for five-passenger comfort, and in the exceptional dimensions of the doors and windows.

The car is lacquer finished in Dodge Brothers blue with a body stripe of cartouche yellow. Fittings and fixtures are first quality throughout, and balloon tires are standard equipment.

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The Producers' Creamery of Benton Harbor

HENRY H. D. BOAS, MICHIGAN

DURING the summer of 1916 producers shipping to St. Joseph and Benton Harbor, Michigan, were getting from thirteen to eighteen cents a gallon for milk. In the fall there was a shortage and dealers were forced to ship in milk at higher prices. Consequently they had to raise the price to the consumer also. They failed, however, to give the benefit of this increased price which they were paying others, to the local shippers. This caused much dissatisfaction around the district.

The discontent was brought to a head in the winter when the dealers sent out their contracts calling for 18-cent milk. Accompanying this contract was a letter instructing the shipper either to sign or discontinue delivery.



PRODUCERS' CREAMERY AT BENTON HARBOR
Manager Andersen (left) is standing near the entrance.

Naturally this brought a storm of protest and due to the efforts of the county agent and several leading men of the district, a meeting was called to discuss the situation.

At this gathering the producers organized, electing Mr. Earl Hemingway, president, and Mr. Warren Smith, secretary. Mr. Fred C. Gleason was elected chairman of a bargaining committee which was instructed to do what it could to sell the entire output of the producers to the Benton Harbor and St. Joseph dealers at an advantageous price. As is always the case the dealers had to listen when confronted by the committee of organized farmers. Largely through Mr. Gleason's efforts a price was decided on. This was 20 cents a gallon for 4 per cent milk and 4 cents a point above or below. Previous to this time milk was bought on a flat rate. The dealers agreed to buy no outside milk until the entire output of the producers was used and the producers agreed to sell only to the dealers until their demand was satisfied. This method was found satisfactory for the next year and a half. The price of milk was raised several times. But an oversupply developed in 1918 and the farmers being over confident and not understanding the situation, overruled Mr. Gleason's advice to accept the dealer's offer of 30 cents a gallon for 4 per cent milk ($3.60 per cwt., 3½ per cent milk $3.40 per cwt.). They demanded 35 cents. The dealers refused and started to buy milk from more distant points; this brought three times the amount necessary for the trade. There were only two possibilities open to the local producers then, either to ship cream to the creameries or to buy out the dealers who were supplying eighty per cent of the milk in the two cities.

The last course was agreed upon. To finance the scheme each member, there were a hundred at first, paid a membership fee of $100 and bought a seven per cent interest bearing first mortgage bond for $500. Later another issue of two hundred, $100 dollar second mortgage bonds was subscribed to by the members. So all the money was raised by the producers themselves, the security being the creamery property which was bought half way between the two cities.

The organization has been paying off its indebtedness for quite a while now at the rate of $500 a month. Membership fees have been raised several times. Beginning at $100 they rose to $250 and $400. They will soon be raised further to $500.

The value of a membership is decided on by deducting the liabilities from the assets and dividing the resulting balance by the number of members, which now total 160.

There is no limit set on the membership of the association but due to the natural limit in the demand for raw milk in the local market, the profit in the business is quickly cut down when a large surplus must be disposed of at butter and cheese prices. Consequently it becomes less profitable to join the association paying such high membership fees. When the market is developed membership is again stimulated by the increased returns to the shipper. The price for the farmer is set monthly by dividing the number of pounds received at the creamery the month before into the balance left after all the month's expenses have been paid. At present the price is $2.25 a hundred for 3.5 per cent milk and five cents a point above or below.

As the big demand here is in the summer, members are encouraged to ship their large amounts then by making the average monthly shipments during the summer months the basis of payment during the rest of the year. During the winter any increase above the average is handled as a surplus and is paid for at butterfat prices prevailing elsewhere. Of course the price per hundredweight is higher summers as there is practically no surplus to dispose of then.

The milk route has increased from 600 gallons daily in 1919 to 3,000 gallons now.

There was a strong agitation for cheaper milk three years ago and in order to fill this demand the creamery now sells 4.5 per cent milk for 13 cents cash, 12½ cents with tickets, and 3.5 per cent milk for 10 cents. In spite of this we find four-fifths of the consumers buying 4.5 per cent milk.

The organization is fortunate indeed in having an unusually capable manager, Mr. Chris. Andersen. Mr. Andersen, before taking charge of this work, had been doing creamery work at Coloma, Michigan. Luckily for the producers the board of directors were able to secure his services in 1919. He has been with them ever since. The success of the venture in a business way must be attributed almost entirely to him and the president of the organization, Mr. Fred C. Gleason, the former chairman of the bargaining committee.

The organization now has a large up-to-date plant. The milk is unloaded and weighed in at the receiving platform. There it is poured into the receiving tank from which it is pumped through the preheater and on through the filter into the pasteurizers and after pasterization it passes over the cooler and on through the bottler; the filled cases are then carried on by a roller conveyor into the refrigerator where they are kept until delivered in the morning. The surplus is separated and kept in the ripening vat. Then it is churned. Large quantities of cottage cheese are also made at the vats.

The shippers' cans are washed when received and returned to them on the same day.

A nineteen horse power boiler supplies the steam necessary to run the plant.

It takes eight two horse wagons and three trucks to handle the daily output of the creamery.

Each truck handles almost twice the amount of an average delivery wagon. Two men care for the horses in the company's barn. The drivers need only hitch up and go in the morning and unhitch nights.

Needless to say the plant and the apparatus are kept spotlessly clean. The appearance of the creamery and its surroundings is a credit to Mr. Andersen and his working forces.



INTERIOR OF PRODUCERS' CREAMERY AT BENTON HARBOR, MICH.

Jackson County Wins

Jackson County, Missouri, has won the "Know Your Cow Contest" conducted by the Missouri and Kansas Colleges of Agriculture in co-operation with the Agricultural Department of the Kansas City Chamber of Commerce. This county has completed during the last eighteen months more cow testing association records than any other county in Missouri or Kansas.

The contest began January 1, 1923, when the Chamber of Commerce offered $1,000 in four cash prizes to the Kansas or western Missouri counties that would complete a year's production and feed cost records on the greatest number of individual cows. Two hundred and fifty-three dairy farmers in 23 Kansas and Missouri counties formed cow testing associations with approximately 25 dairymen in each association. Each association then employed a trained man, recommended by the colleges of agriculture, to test the cows of their herds and compile records showing the production, feed cost, and profit derived from each cow. This work was with the co-operation and under the supervision of the state colleges of agriculture.

Jackson County, Missouri, completed records on 427 cows, winning first prize of $500; Bourbon County, Kansas, was second with 272 records, prize $250; Lawrence County, Missouri, took third prize of $150 with 174 records and Lafayette County, Missouri, fourth, $100, with 168 completed records. Harrison County, Missouri, was a close fifth with 167 cows tested. The prizes are to be paid to the county farm bureaus of the winning counties and will be used by these organizations for agricultural educational purposes.

The 253 dairy farmers who were members of these cow testing associations had a total of 5,745 cows on test during the period of the "Know Your Cow Contest", January 1, 1923, to August 31, 1924. In several cases cows were found to be losing their owners money and were sent to market.

"The testing of the individual cows of the herd is necessary before any dairyman can properly feed and breed up his herd for higher and more profitable production," according to Professor E. M. Harmon, dairy specialist for the Missouri College of Agriculture. Professor Harmon points out that records on several hundred Missouri cows for last year show that those cows producing 100 pounds of butterfat per year produced it at a cost of 41 cents per pound; while the cows producing 300 pounds in a year did so at a cost of 19 cents per pound.

Missouri. GEO. W. CATTS.

A Correction

On page 662 of our December 12th issue we stated that a record recently completed by Queen of York made her the highest producing mature Guernsey of Indiana. This is, we are informed, incorrect. The record is the highest made by an Indiana Guernsey of her age—twelve years.

Dairying Brings Prosperity

HOARD'S DAIRYMAN:—Has the thought ever occurred to you that if a merchant helps his customers to progress, he likewise will progress? His customer is the farmer; he is the greatest producer of any class in business; likewise he is the greatest purchaser. When he is successful then all are successful. When he earns more money he will spend more money.

Dairying is a cash business and as a cash business it tends to remove the evil of credit. The grain man, the feeder of cattle, and the fruit man each receive money in a lump sum once or twice a year. He may get a crop and then again he may not. This is not the case with the intelligent dairy farmer. He gets his crop morning and night, and this crop can be turned into cash daily. These small daily returns in the course of a year amount to a considerable sum. He receives his money in small amounts and at regular intervals; he becomes thrifty and pays as he goes. This is one of the first requisites of prosperity; hence dairying brings prosperity. Prosperity results in business building, therefore dairying is a business builder.

Dairying is constructive agriculture. It enriches the soil, while grain farming depletes the fertility of the soil. These later types of farming should be called soil mining. When the farmer sells 100 bushels of corn he sells $17.30 worth of his fertility but when he sells 2,000 lbs. of butter he sells 70 cents worth of fertility.

Dairying solves the farm labor problem because it gives steady employment the entire year. At the present time there are a large number of unemployed men in the cities. These men ought to be employed on the farms of America and probably would be, if farm work were more stable. Generally men are employed during the summer season and discharged in the fall because there is not enough work to give them employment through the winter. Short time positions attract only the lowest grade of help. By making dairying the important branch of farming winter dairying will be carried on, cows will freshen in the fall and milk all through the winter. They will return at this time of the year greater profits because of a higher market price for butterfat, and a greater percentage of cheap foods like hay and ensilage will be consumed. Winter dairying will help distribute the farm labor problem throughout the year and men and their families will be employed by the year and will be able to save money and better themselves as well as return a profit to their employers.

Dairying will improve the educational, social, and moral condition of the country. The tenants will be able to pay the rent and will not be forced to move from one farm to another as is the case today. The one year tenant means destruction to the farm. He does not keep the buildings in repair or return the fertility to the soil. He tries to skim all the profits from the farm, and the landlord tries to make him pay a large rent in return. If dairying is carried on, silos and better farm buildings will be built to take care of the crops raised, more live stock will be kept per acre, and there will be more intensified farming. There will be better rural schools, better churches, and educational and moral conditions of the country will be improved.

If you but compare the dairy sections of the country with the non-dairy sections, you will see at once that the dairy farmer has a well kept farm, fences in good condition, lawns mowed about the house, flowers and shrubs decorating the lawn, barns, and outbuildings substantially built. Inside the home you will find everything comfortable and homelike, a library, agricultural papers, magazines, and you are impressed with the thought that the farmer and his family are contented and happy. This picture is somewhat different than that of most non-dairy farmers. They have fences that need repair, lawns unmowed and unkept, barns and outbuildings that are not desirable to house stock because of poor ventilation and sometimes too much ventilation. Inside the home you do not find a library of agricultural papers or magazines. Some of the homes appear like camping places and give one the impression that the owners do not intend staying there very long. The children are generally attracted by the white lights of the city and because of these existing conditions leave the farm.

Good steady work is generally paid for whether it is on the farm or in the city. The man who shirks chores because he prefers work in the field must run the gauntlet of overproduction, poor prices, and fallen values in land. The one crop method is fine when the crop is good and the price is high, but this combination of conditions rarely exists. It would be interesting to know how many American farms have been paid for by doing chores.

Chores are considered irksome by a great many men, and perhaps it is natural to avoid any work which is steady and requires our attention every day; but after all is it not also true that any work becomes disagreeable if we fail to put into it the proper spirit? Many a mortgage has been paid by doing chores, and many a boy has been sent to school and graduated at the university by this humble service; homes have been built, and towns, cities, and great business centers have sprung up where men have practiced general farming and made use of their time.

Illinois. C. B. BARKER.



Cheesemakers' Short Course

The annual Swiss cheese and American cheesemakers' short course for experienced men will be held at the Dairy School, Madison, Wisconsin, from February 9 to 21. Already 140 Swiss cheesemakers have attended this course and a number of these men have taken the course more than once.

The improved quality of cheese obtained and the prizes won by makers now using modern methods, make it desirable for every Swiss maker in Wisconsin to attend the course and learn all he can.

Daily cheese making and discussions of all details of the cheesemaker's work will be conducted by Prof. J. L. Sammis and the dairy school staff with Mr. C. A. Eckberg representing the U. S. Department of Agriculture.

The short course for experienced makers of American cheese will be given February 3rd to 6th, 1925. Special attention will be given to modern tests and to methods of making fancy quality and prize winning cheese. Last year, in addition to the dairy school staff, Mr. P. H. Kasper, America's leading cheesemaker and prize winner, demonstrated his methods daily at this school; and Mr. John Cannon, of the Marketing Department, gave instruction in cheese grading, judging, and scoring. The same general plan of instruction will be followed at the coming session.

Those who plan to attend should write in advance, in order that adequate provision may be made to meet the needs of all. No fees for instruction are charged at these short courses. Circulars will be mailed on request, addressed to the Dairy School, Madison, Wisconsin.

Sweet Clover Favored in Australia

Mr. J. K. Stewart, Queensland, Australia, in a recent letter states: "I have been reading with great interest Professor Fraser's articles on 'Ever Failing or Never Failing Pasture' and his remarks on sweet clover. What sweet clover is this? Is it what we know as 'Bokara' clover (Melilotus Alba) or is it some other kind? This is the only sweet clover we know of in this country. While we find it rich in protein, a good milk producer, and furnishing early spring pasture, and a good soil enriching crop—it taints the milk if a cow is pastured on it before milking. Will you kindly let me know if this is the same clover as Professor Fraser advocates."

The sweet clover Professor Fraser has been writing about is Melilotus Alba. There are several varieties of sweet clover in this country, but the Alba variety is looked upon as being the best for all purposes.



ANOTHER GUERNSEY MAKES 1,000 POUNDS FAT

Her name is Dairy Maid Queen of Spring Hill and the exact credits for her year's work are 18,180.7 pounds of milk and 1,011.18 pounds fat, with an average test of 5.56 per cent. She calved at the age of five years and one month, was bred by Wallace Sprang, Ohio. Her record was made by Myron A. Wick, Shuttlewick Farms, Ohio.—The American Guernsey Cattle Club.

You can never eat your cake and have it, too. If you starve the soil it will get even and starve you, and the soil can stand this starving game longer than you can.—LEACH.

BONDS THAT BUILD UP THE FARMING BUSINESS

OVER 300,000 farmers have borrowed money on first mortgages through the twelve co-operative Federal Land Banks. Better terms and lower interest rates enable them to steadily reduce their indebtedness—put their farms on a paying basis.

Money for these Loans is secured through the issue of Federal Land Bank Bonds. In this way, the savings of thousands of investors, large and small, are gathered into the Banks to be distributed to those farmers who can use them profitably.

There is no safer investment than these Bonds. The Federal Land Banks operate under strict Government supervision and are managed by men long trained in banking methods and well acquainted with farm conditions. Every Bond is guaranteed jointly by *all* the twelve Federal Land Banks with combined capital and reserve exceeding $50,000,000.

Federal Land Bank Bonds are tax-free, inheritance taxes only excepted. And interest received from them is free from all income taxes.

Money invested in Federal Land Bank Bonds earns a good rate of interest, unfailingly paid twice yearly. Price and current rate will be gladly quoted on request.

In case of need, Federal Land Bank Bonds can be turned into cash on short notice. Or, they can be used as security for a loan at your local bank.

A Federal Land Bank Bond may be purchased for as little as $40 or $100. Other denominations are: $500, $1,000, $5,000 and $10,000. Your choice of coupon or registered form. Delivered by registered mail; all correspondence confidential. Look for the words "The Federal Land Bank" appearing at the top of every Federal Land Bank Bond.

The Federal Land Banks are located at

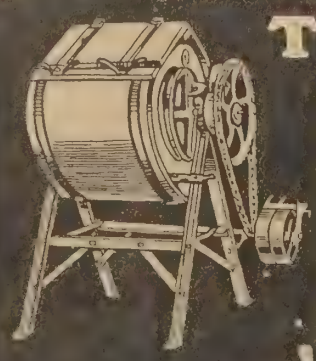
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FEDERAL LAND BANKS
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ALWAYS GETS
TOP PRICES



Three to four cents over the market price of butter. That is what MINNETONNA owners get for the product of this wonderful churn and butter worker. The high quality of MINNETONNA-Made butter insures a ready market.

Pays for itself in a short time because it gives overrun (moisture and salt) of 20% to 25% and gets all of the cream from the butter milk. Eliminates labor of working butter.

Will churn 12 gallons of cream or less. Works 3 to 20 lbs. Requires ¼ H. P. motor or 1 H. P. gas engine. Hand driven if desired.

Complete directions for operating and making quality butter with each churn. Write for FREE descriptive folder.

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Costs Less To Operate

Do your own feed grinding. Supply your own stock and poultry feed, graham flour and rye flour. Keep your engine or tractor earning a profit. You can grind a wagon load an hour for 15 cents with a

HOWELL *Roller Feed Mill*

Grinds twice as fast as burr mills at half the expense. Built like a flour mill. No burrs, no stones to wear out. Trouble-proof. Guaranteed to get the wild oats. Gives lifetime service.

Thirteen sizes, any capacity—a size for any engine. Write for Catalog.

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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Forced Co-operation

HOARD'S DAIRYMAN:—Under the Brickbat columns I find one Fred M. Jones making sport of H. H. Lyon of New York and calls the Dairymen's League co-operative contract a forced contract, but it appears, according to his writing, that he is not in sympathy with the co-operative movement. He would rather be a slave to the Sheffields and similar corporations than to take the hand of his fellow dairyman and work shoulder to shoulder with him. He seems to know so much, why has he not led the way and started something better? No, he either would rather ride his brother's horse or is in the employ of some corporation to bust the poolers.

He speaks of forced co-operation. I think forced co-operation has been forced on the farmers everywhere by all sorts of leeches such as he and other corporations upon corporations, till we are nearly broken backed with the loads we pack. We feed them all and pay for all their idleness, but I see that there are yet some people like Don Rice said, a plenty of them to see him act a fool but not to make a move to help get out of the mess of pottage way of living; but the penny grabbers some day will die the death they deserve, not by war on paper but by war of worse nature.

Now, Brother Jones, in sincerity and best wishes, look again and see if you have not misinterpreted your brother's intentions. To you the light is shining bright all around us of what I have written. Even the President of the United States of America says we farmers must work our way out of the conditions we are in, so if you know of anything to better helping dairy farmers, please start the ball. It is like us in Southwest Missouri, the corporation wanted to fill our section with cheese factories for us farmers and dairymen to pay for, but by our reading of the troubles of older sections of the country we were only getting the privilege to pay the fiddler for the corporation to dance and us to toil early and late to keep them going strong.

Missouri. FERDINAND ORTLOFF.

Pity the Consumer

HOARD'S DAIRYMAN:—Let us all unite in helping the consumer for we are all consumers. Any burden of government tax, etc., should not be levied if it hits us for we only wish to consume. If, however, any consumer presumes to labor, farm, or even think that he may produce, then he should pay rent and taxes. But those of us who idle away our lives hoping that so long as we live we shall never be compelled to lift our hands for our fellow-men, even for ourselves, should not be taxed.

If any should stoop to labor and pay thus for a home site we will tax them or if they strive honestly for a place to rest their heads at night, then they are the hated producers. They should be compelled to pay tax or rent and, better, both; also have many laws controlling and regulating that which they produce that we, the poor consumer, might benefit thereby. Also, if any of our class have ever been useful as laborers, soldiers, or farmers, it should be taken in account against them. Likewise, the helpless and disabled should be discounted. But we, the elite of the consumers, those of able bodies, who reap by usury, theft, bribes, and dishonest business, should receive no government burdens. Any law against us would be unjust and those who make them must think twice ere they act. For God pity us, we are the true consumers.

Michigan. RALPH W. STEED.

Fairy Tales

HOARD'S DAIRYMAN:—A child labor law such as the editor of Hoard's Dairyman in his issue of November 21st would consider a representative child labor law, we, as well as he, would surely consider foolish and impractical.

The editor calls upon us to think of a law so framed that one could "imagine the busy mother on the farm, who had daughters ranging from ten to eighteen years of age, being unable to call upon any one of them to do so much as wipe a few dishes or set the table or do any one of the many hundreds of jobs necessary about the house". We seem quite unable to imagine such a monstrosity of a law, and we have never considered ourselves as particularly lacking in imagination. Might we suggest to the editor that perhaps he has missed his calling and, with his remarkable imagination, he should be peculiarly fitted to write fairy tales.

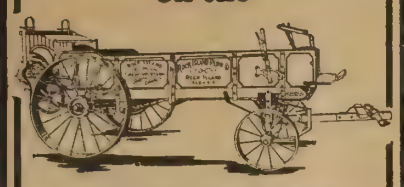
This child labor the editor suggests has never, to our knowledge, been included in a child labor law, domestic and farm labor usually being exempted. The law is applied generally only to factory positions where a child works at a steady job inside a factory, when he should be at home, in school, or out-of-doors. We recommend that the editor read some of the child labor laws, Wisconsin's for example, and then present to his readers some reasonable argument, rather than attempt to appeal wholly to prejudice.

We believe the Child Labor Amendment, giving Congress the power to regulate, prohibit, and control the labor of persons under eighteen years of age, to be a wise measure. We hold that in a country whose ideal is equality, every child is entitled to an equal opportunity for health and education. The states that have passed laws protecting their children's education and health have found their laws workable and practical in all except one particular. They find that the states that have refused to pass these laws are able to sell their goods at a lower price, since they could use cheap child labor. So the United States Congress, believing in the principles behind this law, refused to have the majority of the states discriminated against by a selfish minority and passed a law prohibiting the shipment in interstate commerce of articles made by child labor. This law was declared unconstitutional by the Supreme Court and it was necessary for Congress to propose to the states an amendment to the constitution granting them that power.

Having given Congress powers much more dangerous, such as the power to declare war, we are also ready to trust Congress to pass a child labor law that will be fairly enforcible and just. If we felt unable to trust them otherwise, we are sure that they would care enough for their seats not to pass an absurd law which their constituency, of whom a large number are farmers, would disapprove.

Reedsburg, Wis. M. J. B.

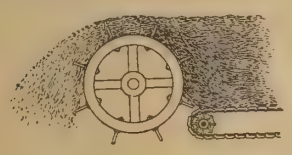
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Notice how the beater sets behind and extends below the apron. This position insures discharge of manure with least power. Patented endgate and hood prevents manure from reaching beater until running at full speed, guaranteeing an even spread from start to finish, also preventing throwing manure into the air.

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Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

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FREE CATALOG OF SPLENDID BARGAINS.
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Friendly Talks for Farm Folks

When in debt—Don't!

⚜

Mrs. Ed. Whittiger went to the hospital recently and had everything fixed up, restored, and amputated excepting her disposition. The doctor and nurses afterward admitted that was beyond help.

⚜

We've mentioned the acute belt vs. suspender question in these columns before, but it's come to such a pass over at Herm Munson's that Herm's boy, Cal, says if the rest of the fellers don't begin wearing galluses pretty soon, danged if he won't go and be a hermit.

⚜

Our farmers perforce have enough to eat and a mended roof over their heads and a lot of them pianos and radios and automobiles and so on, therefore if one year came along in which the crops just about satisfied demand at profitable prices, blessed if we know what some of us would find to kick about.

⚜

During pheasant hunting days in old York State this fall, there were very few of the wary birds bagged as usual, but the grand total of hens hit on the roads, cows carrying shot around in their hides, and forest fires started by carelessly tossed away cigarettes has surpassed all previous records. These Thursdays and Saturdays were certainly a grand success.

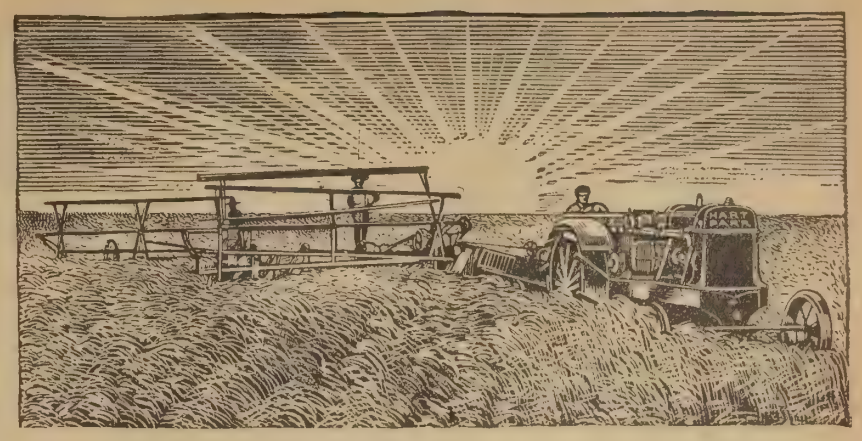
⚜

Mrs. Jacob Bixby once dreamed that she went to the Lower Regions for a little visit. Satan, of course, welcomed her with open arms, then said, "I want you to sit down at the table and enjoy one of our finest banquets for most honored guests." So Mrs. Bixby—in her dreams—sat down at one of the enormous tables and was promptly served in high style with cold-boiled eggs, slightly turned milk, halfbaked potatoes, and burnt toast an inch thick. "Well, I declare!" said Mrs. Bixby—in her dreams—with great disgust. "If you can't do any better or worse than *this*, Mr. Satan, I may as well wake up and go back to earth to stay. That's the very same sort of cooking we give our boarders every meal at the famous Bixby Inn."

⚜

In a recent Saturday Evening Post, the author, Garet Garrett, in a leading article on agriculture, notes in some bemusement that the farmer is still cheerfully kicking right along in spite of one or two benefits with which Providence has blessed him recently. Now that the old year is over, why not admit first as last that not every one of us is dead broke; not every one of us is at death's door; not all of us are going to lose our farms at tax time; very few of us but who ride in our automobiles; fewer and fewer of us are getting along without radios and bathrooms; very few indeed of us who don't know and use improved machinery and who own good live stock. Of course there is a lot of kick about; the farmer feels he is not compensated in ratio to the union man, but after all how many of us would change permanent places with the latter, taking his more or less uncertain, highly paid job, his inflated rents, his expensive city life, in exchange? It doesn't do any harm once in a while to face things as they are, in case we should get so into the habit of calling, "Wolf! Wolf!" that the world—at some desperately critical time—should not pay any attention at all.

New York. HELEN S. K. WILLCOX.



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Almost before the sun is high, a HART-PARR will have accomplished work that formerly took a day to do. By crowding a day's work into two or three hours, thousands of HART-PARR owners are producing bigger crops and making greater profits.

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Money put into a HART-PARR isn't spent but invested. It will pay back its cost many times. In the spring it will save money on plowing, discing and seeding. In the fall it will cut the cost of harvesting, threshing, husking, shredding and silo-filling. And in winter it will economically shell corn, grind feed and saw wood. The kerosene-burning HART-PARR costs little to operate, and it seldom needs repairs. That's because we build it to endure.

The HART-PARR comes in three sizes, for the small, medium or large farm. Ask your dealer to show you the *improved* models, with enclosed drive, greater power, disc clutch, *power take-off*.

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This big free book will convince you of the economy of power farming, and also show you how to get the most for your money when you come to buy a tractor. Contains scores of illustrations and hundreds of helpful facts for the farmer who would like to grow bigger, sturdier and more profitable crops. Sign and mail the coupon now!

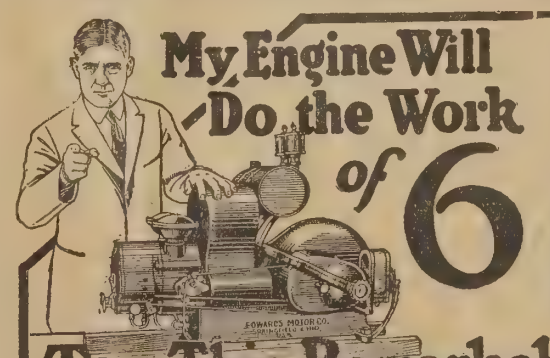
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Without obligation, please send me your free illustrated book on power farming.

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"I set out to build a farm engine that would have every feature the farmer wanted and none he didn't want. It has now been on the market six years. Thousands of satisfied users tell me I've succeeded. I'm proud to have this engine bear my name."
—A. Y. EDWARDS

EDWARDS FARM ENGINE

Try This Remarkable Engine FREE

There is no other farm engine like it. Simple in construction and easy to operate. It is only one engine, yet it takes the place of six engines. It will give from 1½ to 6 H. P., yet it is so light that two men can carry it easily. Set it anywhere and put it to work.

Change Power as Needed

It is a 6 H. P. when you need 6, or 1½ H. P. when you need only 1½, or any power in between. Fuel consumption in proportion to power used and remarkably low at all times. Adjustment from one power to another is instantaneous.

Burns Kerosene

Operates with kerosene or gasoline. Easy starting, no cranking. The greatest gas engine value on the market. And you can prove all of these statements to your own satisfaction.

What Users Say

Ivan L. Blake, of Hannibal, New York, says: "Only engine economical for all jobs. I run a 28-inch cord wood saw, a 24-inch rip saw, a washer, a pump, and a grinder, and it sure runs them fine. It has perfect running balance, and it sets quiet anywhere."

Clarence Rutledge, of Manitoulan Island, Ontario, says: "Have given my Edwards four years' steady work and like it fine. It uses very little fuel. I run a 28-inch cord wood saw, also a rip saw, 8-inch grinder, ensilage cutter, line shaft for shop, churn, washer, separator and pump. Have had ten other engines and the Edwards beats them all."

Frank Foell, of Cologne, New Jersey, says: "It's a great pleasure to own an Edwards engine. I run a wood saw, cement mixer, threshing machine, etc. Do work for my neighbors. Easy to move around and easy to run. I would not have any other."

Free Trial Offer

Now—I want to prove my claims to you. I want to send you an Edwards Engine for absolutely free trial. Just write your name and address on coupon and mail. I will send at once complete details about my farm engine and about my free trial offer. No cost or obligation. Mail coupon now.

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Without cost or obligation, send me complete description of your engine, also details of your free trial offer.

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DAIRY MARKET NEWS

December Condensery Prices

(New York Dairymen's League)

The following table gives the prices paid per hundred for 3.5 per cent milk at representative condenseries in several different states:

Territory	1924 Dec.	1923 Dec.	1924 Nov.
ILLINOIS			
Oregon	$1.85	$2.10	$1.60
Dixon	1.75	2.10	1.57
Sterling	1.75	2.10	1.57
Morrison	1.85	2.10	1.65
Greenville		2.40	1.85
Waterloo	2.00	2.40	1.90
INDIANA			
Goshen		2.21	1.78
Sheridan	1.84	2.19	1.49
Lebanon	1.84	2.19	1.49
IOWA			
Waverly	1.85	2.15	1.65
KANSAS			
Mulvane	1.95	2.10	1.60
MICHIGAN			
Sandusky	1.75	2.10	1.57
Howell	1.75	2.10	1.57
Mt. Pleasant	1.75	2.10	1.57
Sparta	1.75	2.10	1.57
Charlotte	2.00	2.25	1.75
Perrington	1.79	2.10	*1.57—**1.62
Sheridan	1.79	2.10	*1.57—**1.62
Cass City	c	2.15	1.85
Ubly	c	2.15	1.85
Lake Odessa	c	2.15	1.85
Wayland	2.00	2.10	1.70
Hudson	2.00	2.10	1.70
Belleville	1.95	2.20	1.65
Coopersville	2.00	2.10	1.70
OHIO			
Marysville	1.85	2.20	1.65
Lodi	2.20		1.90
Delta	2.00	2.10	1.70
Minerva	2.00	2.20	1.70
Barnesville	2.15	2.95	1.75
WISCONSIN			
Monroe	1.75	2.10	1.57
New London	1.75	2.01	1.57
Berlin	*1.75	2.14	1.53
Richland Center	1.71	2.10	1.53
Chilton	1.71	2.10	1.57
Oconomowoc	1.85	2.35	1.60
Jefferson	1.85	2.25	1.60
Sullivan	1.85	2.25	1.60
Juneau	1.80	2.35	1.70
Waupun	1.85	2.30	1.65
Whitewater	1.85	2.20	1.65
Reedsburg	b	2.45	1.88
Delavan	1.90	2.25	1.60
Burlington	1.90	2.25	1.60
Valders	d	2.10	1.71
New Glarus	1.95	2.20	1.65
Walworth	2.00	2.65	1.70
No. Prairie	*1.85	2.20	1.60
Footville	1.90	2.20	1.65
Albany	1.90	2.25	1.60
Denmark	*1.76	2.21	1.66
Elkhorn	2.00	2.20	1.65
PENNSYLVANIA			
Mill Hall	1.74	2.24	1.64
Spring Mills	1.74	2.24	1.64

*First half of month.
**Second half of month.
b—Ave. 92-score butter Chicago plus 40c.
c—Ave. 92-score butter Chicago plus 30c.
d—10 times Longhorn cheese plus 10c.

League November Pool Price

The gross pool price of the New York Dairymen's League for November milk is $2.35 per 100 pounds (3 per cent butterfat) at the 201—210-mile freight zone. Expenses amounted to 9 cents per 100 lbs., making a net pool price of $2.26. Deductions for certificates of indebtedness were at the rate of 10 cents per 100 lbs., leaving a cash distribution of $2.16.

With the exception of October and November, 1923, it is the League's highest pool price since February, 1926. The net pool price is $1.08 higher than the average price of milk made into butter during November. The League marketed as fluid milk 73 per cent of all the milk it handled during the month, a new high record. Ninety-seven and one-half per cent of all milk marketed through League plants was sold as fluid milk and cream.

Since April 1, 1924, the beginning of its current fiscal year, up to Dec. 11, the Dairymen's League Co-operative Association, Inc., received 3,818 contracts, making a total of 67,564 then on file.

Cheese Markets

(Report by U. S. Dept. of Agr.)

During the week ending December 20, Wisconsin cheese markets were in a steady to firm position. Board prices of effect during the week, as established on December 13 at the Wisconsin Cheese Exchange were maintained at an unchanged level. There was no meeting of the Farmers' Call Board. At the unchanged price level the market was reported steady to firm. Trade was only fair but was generally considered good considering the time of year. The cold weather prevailing throughout Wisconsin during the week hindered to a considerable degree both shipments from primary points and production throughout the state. New York State markets continued quite firm with available supplies very limited.

The average wholesale prices on American cheese, style Twins, for the week ending Dec. 20, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Dec. 20 1924	Dec. 13 1924	Dec. 20 1923
	Cts.	Cts.	Cts.
New York	22.7	22.5	23.1
Chicago	21.4	21.3	21.6
Boston	22.7	22.7	24.4
San Francisco	19.2	19.7	22.6
Wisconsin Board	21.0	21.0	22.0

The receipts of cheese at these markets were 3,487,264 lbs. for the week as compared with 3,642,120 lbs. last week and 3,318,974 lbs a year ago.

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets during the week ending December 20 were a disappointment to those who expected more activity and a firmer tone with the approach of the holidays. Instead of an active demand, trading was only fair with buyers showing but little inclination to anticipate future requirements. There were a few firm spots, Wednesday for example, when there was considerable buying of 92 score butter at New York and Chicago resulting in price advances of ½ cent on those markets and one cent at Boston. This firm spot was short lived as later easier undertones were reported which resulted in declines greater than the advance.

Advisers regarding foreign situation report all markets in fairly firm position. Copenhagen quotation for Thursday, December 18, was 600 kroner per 220 lbs. or 48.17c. More American butter was returned from England this week and additional lots are expected to arrive next week.

The average wholesale prices on 92-score butter for the week ending Dec. 20, 1924, for the week previous and for the corresponding week a year ago were as follows:

	Ave. for the week ending Dec. 20 1924	Dec. 13 1924	Dec. 20 1923
	Cts.	Cts.	Cts.
New York	44.5	44.2	54.7
Chicago	41.0	41.7	53.6
Philadelphia	45.2	45.1	54.7
Boston	43.5	43.6	54.0
San Francisco	43.3	38.4	48.2

The receipts of butter at these markets were 8,900,237 lbs. for the week as compared with 8,891,575 lbs. for last week and 8,766,005 lbs. a year ago.

Wisconsin Dairy Cattle Market Report

Sales of dairy cattle from Wisconsin for November have held up most remarkably.

Five thousand, seven hundred and eighty-one animals were shipped to out-of-state buyers during the month, or 358 head short of November, 1923. As usual the great bulk of sales have been made to nearby states, with Canada and the many eastern states taking good shipments. The grain belt took more than its usual quota, which is a surprise, for many felt that the price of wheat would tend to change the western dairyman back to grain farming.

The trade has absorbed a lot of "good" to "choice" cows at values ranging from $85 to $125, but the largest shipments have been on milkers and backward springers at $50 to $90.

Reports reach us that few cows with good cow testing association records are offered for sale, and that where these cows are sold, prices range up to $150.

Official Average Prices

Extra choice springing cows of good size and type (with cow testing association records of 300—400 lbs. fat)	$115—150
Choice grade springing cows (without records, but of good type)	90—125
Good grade cows due to freshen in 30—60 days	85—110
Grade cows, milkers	65— 90
Ordinary cows, milking, fresh 4—6 months	55— 70
Cows slightly blemished	40— 60
Cows—"culls"	No market
Choice heifers, 2-year-old, springing, record dams	80—100
Heifers, 1—2 years old, springing	70— 80
Heifers, ½ year old, open or recently bred	40— 60
Heifers, undersized and thin	30— 40
Heifers, yearlings	30— 40
Heifer calves 2 to 3 months old	20— 30
Heifer calves 2—6 weeks old (crated)	15— 25

A. O. Collentine, Dairy Extension Specialist.

MILWAUKEE, Dec. 23—Butter—Creamery, Fresh; extras, tubs, 42c; standards, centralized, 40c; extra firsts, 39@39½c; firsts, 30@40c; seconds, 34@38c; ladles, 27@28c; packing stock No. 1, 24@25c; off goods, 15@20c.

Cheese—American—Full cream, Twins, 22@22½c; Daisies, single, 22@22½c; Double, 22@22½c; Young Americas, 22½23c; Longhorns, 22½@23c; Squares, 23½@24c; 5-lb. loaves, American, 32c; pimento, 34c; Brick, 32c; Swiss, 42c; special makes, Brick, fancy, 19@20c; Limburger, 20@21c; Swiss, block, 20@25c; loaf, 28@35c; imported, Swiss, tubs, 46@48c.

Eggs—Fresh gathered firsts, new cases, candled, 55@56c; ordinary firsts, standard cases, candled, 53@54c; miscellaneous lots, shippers' cases returned candled, 50@52c; seconds and dirties, candled, 30@32c; check, candled, 28@29c; refrigerator firsts, April, 38½@39c; Mays, 38@38½c.

CHICAGO, Dec. 23—The butter market today was steady to firm following a ½c advance on 92 score butter. Buyers showed more activity than for some time past and there appeared to be a slight tendency to anticipate requirements. Storage centralized moving slow at unchanged prices. Offerings of 89 score fairly liberal with demand light.

Fresh butter—92 score, 41c; 91 score, 40c; 90 score, 39c; 89 score, 37½c; 88 score, 35½c; 87 score, 34c; 86 score, 32c. Centralized car lots—90 score, 39½c; 89 score, 37½c; 88 score, 35c.

FOND DU LAC, Wis., Dec. 20—Average cheese prices, majority of sales, f. o. b. shipping point: Single Daisies, 22½c; square prints, 22½c.

PLYMOUTH, Wis.—Cheese prices established on Cheese Exchange Dec. 20: Single Daisies, 21c. On Farmers' Call Board Dec. 19: Young Americas, 21¼c; Longhorns, 21¼c; square prints, 23¾c.

NEW YORK, Dec. 23—Butter easier; receipts, 7,704 tubs; creamery extras, 44c; specials, 44½@45c. Eggs steady; receipts, 12,774 cases; white, fancy, 70c; fresh firsts, 58@66c; western whites, 40@69c.

An Illinois Guernsey Sale

The recent Jo Daviess County Guernsey sale included 12 registered bulls and 36 grade cows and heifers which brought $3,873. The cows averaged $102 with $166 for the top. Buyers were from Jo Daviess and adjoining counties.

A Creamery Meeting

HOARD'S DAIRYMAN:—The annual meeting of the stockholders of the Modena Co-operative Creamery was called December 13, by the president, Adolph Marten, to hear Mr. Kittelson, president of District No. 7 Wisconsin Co-operative Creameries' Association, in his request that the creamery join group No. 7 consisting of the creameries of Jackson, Trempealeau, and Buffalo counties.

Items from his report show that the member creameries pay one-tenth of a cent per pound as dues; over six million pounds of butter (annual production) are already signed up in this group; the expense of the directors at their regular meetings is taken from this fund; the fieldman is paid $250 per month and 6c per mile traveled, and he is supposed to visit each member creamery at least once per month; the directors, one from each member creamery, are paid $4.00 per day and mileage when attending district meetings; there are 26 creameries eligible to join this district, most of whom in Jackson and Trempealeau Counties have signed up; the districts are divided according to location of creameries and shipping facilities. The main object of this project is to co-ordinate the member creameries in shipping in car lots a uniform quality of butter, buying supplies together, and plan their work on a unit basis.

Mr. Kittelson's talk was well received and the stockholders voted to instruct their directors to co-operate with the directors of the neighboring creameries as they saw fit.

Statistics from the report of the secretary, Mr. Harry Moats, are as follows: 287,468 lbs. of butterfat delivered by the farmers, there being no haulers, for which the creamery paid 46.28 cents per pound. The overrun was 24%. The treasurer's salary was $122 and the secretary's $400. An 8% dividend was declared on the $1,975 outstanding stock. The creamery secured a net profit of $181 in shipping in car lots with neighboring creameries for the six months previous.

This situation is a contrast to the conditions at Alma, 14 miles away, where the dry milk plant has closed its doors with about two months' milk unpaid for and very uncertain markets for the farmers' cream. This shows the value to a community of a well established creamery or cheese factory.

Wisconsin. LEO. S. BOHRNSTEDT.

World's Record Cow Dies at Cornell

Glista Ernestine, the only cow in the world with seven 30-lb. 7-day butter records, died Wednesday, December 10th, at Cornell University barn. On December 8th she dropped a 90-lb. bull calf and gradually grew weaker until she died.

Her last seven-day record was made in August, 1923, when, in spite of her advanced years, hot weather and a rest period before calving of only a month following a yearly record in which she exceeded 20,000 lbs. of milk and 720 lbs. fat (900 lbs. butter), she nearly reached the 30-lb. mark. Soon after finishing this seven-day test she was taken to the National Dairy Show at Syracuse and proved a very interesting exhibit. This grand old cow was born November 12, 1908, on the University Farm and has been kept here all her life. During this time she has given birth to six sons and seven daughters, four with A. R. O. records.

Her best yearly production was 23,831 lbs. of milk and 833 lbs. of butterfat. Her lifetime production totals 7,342 lbs. of fat and 202,005 lbs. of milk.—F. H. PEABODY, New York.

Carload Prices of Hay, Straw, and Feed, Dec. 20, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26 50	27 00	....	20 50	21 25	26 50	27 00	24 50	....	23 00	18 00	24 00	....	....	
No. 1 Clover, mixed	20 00	....	....	19 00	17 50	....	30 00	....	....	....	16 50	....	....	....	....
No. 1 Clover	....	24 50	....	19 00	....	....	....	....	....	17 50	....	20 50	....	....	....
No. 1 Alfalfa	....	30 50	....	....	....	36 00	31 00	30 00	....	23 00	24 00	..	17 50	....	....
Standard Alfalfa	....	25 50	....	....	....	34 00	29 00	29 00	....	18 00	20 00	..	16 50	....	....
No. 2 Alfalfa	....	23 50	....	....	....	29 00	....	24 00	....	14 00	17 00	....	14 50	....	....
Oat Straw	13 00	15 00	16 00	13 50	13 50	....	....	....	....	10 00	9 00	....	8 00	....	....
Feed—Bagged															
Wheat Bran															
Spring	38 00	....	37 50	37 50	37 00	38 00	....	....	....	33 50	31 25	....	....	....	....
Soft Winter	40 25	....	39 50	38 00	38 00	38 50	....	34 00	....	....	....	....	....	31 00	....
Hard Winter	38 25	....	39 00	36 50	....	38 00	....	33 00	....	....	....	32 50	30 50	30 50	....
Wheat Middlings		....		....	....	....	....	....	....	....	....	....	....	....	....
Spring (Standard)	40 75	....	41 00	37 50	38 50	44 00	....	....	....	34 50	32 00	....	....	....	....
Soft Winter	46 50	....	46 00	43 00	38 00	46 00	....	....	....	....	....	....	....	....	....
Hard Winter	....	....	....	42 00	....	45 00	....	....	....	....	....	37 00	....	35 00	....
Wheat Millrun	....	....	40 00	....	....	42 00	....	....	....	....	....	....	....	35 00	....
Rye Middlings	....	....	....	37 00	....	....	....	....	....	....	32 50	....	....	....	....
High Protein Meals	....	....	....	....	....	....	....	....	....	....	30 00	....	....	....	....
Linseed	50 75	....	50 50	50 50	....	....	....	....	....	47 50	47 50	49 50	52 00	51 50	....
Cottonseed (41%)	47 50	....	47 00	44 75	....	....	....	39 50	....	43 50	45 00	41 00	....	....	....
Cottonseed (36%)	43 75	....	44 50	....	44 25	35 50	....	37 00	....	41 50	43 00	38 50	....	....	....
Tankage (60%)	....	....	....	....	....	....	....	....	....	60 00	60 00	60 00	60 00	60 00	....
No. 1 Alfalfa Meal	....	....	....	....	32 00	....	....	28 00	....	27 50	....	27 00	26 00	24 00	....
Gluten feed	47 95	....	48 90	44 70	47 50	....	....	....	....	40 80	44 00	....	....	....	....
Hominy feed (white)	54 25	....	54 00	....	48 00	48 00	....	....	....	49 00	....	48 00	47 00	....	....
Hominy feed (y'llow)	50 25	....	52 25	....	47 50	48 00	....	....	....	49 00	45 00	....	47 00	....	....
Ground barley	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dried Beet pulp	....	....	38 00	....	38 00	....	....	....	....	....	32 00	....	....	....	....

Indiana Conference

A large number of the leading agricultural and home economics workers of the United States and Canada have been secured for Agricultural Conference Week at Purdue University, Jan 12—16. Since the purpose of the conference is to consider the larger program for agriculture in Indiana, these workers of national reputation will bring to Indiana people much of help and value. The agricultural conference also offers an opportunity for Indiana people to hear some of the best speakers from the various institutions throughout the country. The program as planned will be both inspirational and educational.

The agricultural conference program has been arranged so that the various groups may give their time to special lines of work. At the same time there will be opportunity for all in attendance to hear the leading speakers on the big general subjects. Indiana people should plan to attend the agricultural conference. Programs, room reservations, entries for the shows, and other information can be secured by addressing W. Q. Fitch, West Lafayette, Indiana.

New York League News

HOARD'S DAIRYMAN:—The report that several of the New York milk dealers who have manufacturing plants and who are pool buyers will place those plants under city inspection and furnish class one milk for League purposes is undoubtedly true. The six or eight League evaporating plants are already under inspection and milk for city trade is now being shipped from them.

There is, if I make no mistake, a growing feeling of confidence that the Dairymen's League is getting on a better working basis. This, of course, does not eliminate the troubles that grow out of the Sheffield competition. They do not manufacture except at two or three condenseries, and there a different price is paid. The November pool price is $2.35, less expenses and deductions. The League puts 90 per cent of its own plant milk into class one. The Sheffield price is reported to be $2.60, but no public announcement is made of this that can be considered authentic. The Sheffield price is usually reported differently by different people in different places, indicating that they are operating somewhat on the old time plan with price depending upon competition.

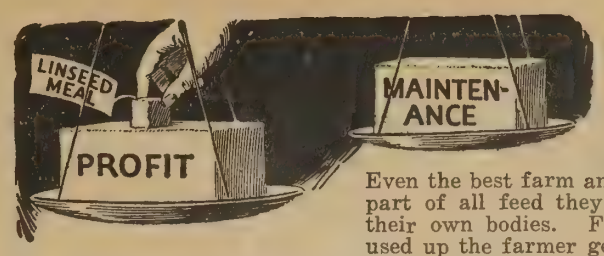
The League's class one price is continued at $3.07 and the expectation is expressed that it may thus remain through January and possibly through February. This, of course, is based upon the known shortage of milk in the territory. I have even heard the estimate that it may continue longer, but I fear that this is expecting too much. With butter at 42 cents as quoted the butter price of milk is $1.40. The question comes as to the danger of a class one price almost 220 per cent of the butter price. My understanding of the League position is that with the present shortage of milk and so many manufacturing plants ready to ship fluid this price is entirely safe.

An interesting chart has been prepared to show the effect of the League cancellation period on the Sheffield price. It shows that the January price has been eleven to twenty cents above the average paid by pool buying dealers, but that February has each time dropped more than those dealers, sometimes fully twenty cents below. The general average has been much below. I saw this chart as it was being completed but it will shortly be presented at public metings.

The purchase of the Clover Farms is having a buoyant effect generally except to those patrons who were enjoying the privileges of that special market. These men are doing considerable rustling to find another opportunity equal to that they have enjoyed. So far as they can get something in that line, the most of them are not likely to join the League. There are still two weeks in which they may decide upon a course. The Sheffields look now to be almost their only outlet at the special price and that concern can reach its limit of profitable buying without going so very far. They will not accept milk to accommodate farmers as the League does but will stop buying when they get what they want for their business at a profit.

New York. H. H. LYON.

Lives of great men all remind us of the somewhat painful fact that if we, too, would be famous, we must cut out talk—and act.—Judge.



— The tiny weight that tips the scale

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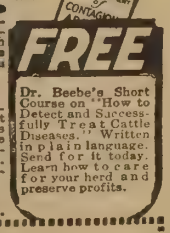
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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

The Third National Club Congress

IT was "the event of a lifetime" for more than 1,200 boys and girls, all 4-H club champions, from about forty-one different states who attended the Third National Club Congress at the twenty-fifth anniversary of the International Live Stock Show in Chicago, November 29 to December 5.

A glorious week of sight-seeing, banquets, entertainments, and educational tours was their reward for excellence in club work. The educational tours included trips through packing plants of Thomas E. Wilson & Company, Armour & Company, Swift & Co., Sears, Roebuck & Co., Montgomery Ward & Co., the new Field Museum, the Chicago Board of Trade, the International Harvester Company, the Lincoln Park Zoo, and the American Steel and Wire Co. For these tours the youngsters were divided into two battalions, the first in charge of L. I. Frisbie, Nebraska state club leader, and the second in charge of W. H. Palmer, Ohio state club leader. Big city life was new to most of the visitors, but a large majority upon the conclusion of the trip were found to be overwhelmingly in favor of country life. "Give me the country any day, that's where a fellow has a chance to stretch out. Another reason I prefer the country is because I like to watch things grow," is the way George Wilson, a Kentucky club member expressed himself.



FORD MERCER, OKLAHOMA, WINNER MOSES LEADERSHIP TROPHY

Four days—four banquets was the schedule for the week beginning Dec. 1. Monday, Thomas E. Wilson & Co. entertained the boys and girls with a fine banquet and vaudeville stunts. Tuesday evening the club members' annual rally and banquet was held at the Drake Hotel. George E. Farrell, U. S. Department of Agriculture, was toastmaster and on the program were E. T. Meredith, former secretary of agriculture and publisher of Successful Farming; Miss Gertrude L. Warren of the U. S. Department of Agriculture; and R. S. Duncan of the Ontario Department of Agriculture. Earl Cooper of the Holstein-Friesian Association made his bow as a song master at this event.

Wednesday evening a complimentary banquet was given by the National Live Stock Producers' Association at the Morrison Hotel, President John J. Brown, toastmaster. Thursday evening a banquet was given by nine Chicago railroads.

The Club Building was headquarters at the International Live Stock Show during the week for everyone. On the first floor were housed a number of very fine educational exhibits by the U. S. Department of Agriculture. Here were also found the state clothing and canning exhibits. On the second floor was an exhibit by Alabama cotton club members and the competitive state exhibits in home improvement. In the auditorium on the main floor daily demonstrations were given by champion home economics and agricultural boys' and girls' club teams from many states.

Iowa won first in the clothing exhibit contest, followed by Nebraska, Kentucky, Illinois, and South Carolina in order. In canning exhibits Oklahoma was declared the winner, followed by Nebraska, Kentucky, Minnesota, and Vermont. In the room improvement exhibits, Iowa won first, Vermont second, Indiana third, Florida fourth, Nevada fifth.

Girls' judging contests were one of the features at this year's Congress. In judging clothing Delia Gransburg, North Dakota, won the blue ribbon. In judging canned meat Mildred Sodje, Wisconsin, was first. In the judging of canned fruits and vegetables, and bread Irma Cronberg, Minnesota, won two firsts.

Twelve different states were represented in the Style Show, a completely new feature for the Club Congress. It was given following the banquet Tuesday night. Wisconsin won the blue ribbon in this show. Geneva Amundson was the Badger state representative.



KANSAS WINS JUNIOR LIVE STOCK JUDGING CONTEST

Right to left: M. H. Coe, live stock club specialist; Laurence F. Hall, coach; Karl Garrett, Ralph Grose, and Edgar Webster.

"The Club Congress Courier" was the title of a two-page stencil newspaper issued daily to visitors at the Club Congress. Herein was published news of the leading events of the day.

"Our Inquiring Reporter" was one of the most interesting columns in the daily paper. Some of the questions asked were: What's the most valuable thing you have learned on the trip? Who is the funniest person you have met and why? How did you win your trip to the International? After seeing Chicago, which do you prefer, city or country life, and why? What message are you going to take back home with you? In reply to the last question Lee Fullerton, a Hoard's Dairyman Junior from Minnesota, said the following: "It has been a revelation to me to learn the extent of the packing industry. I have two years more as a club member, and I am going to boost club work harder than ever as a result of this trip."

Ford Mercer, Oklahoma, is the new club champion of the United States for he was declared the winner of the Horace A. Moses leadership trophy which was awarded to the club member doing the best piece of leadership work. Ford is nineteen years old, has thirteen brothers and sisters, and lives with his father who is a tenant farmer. He has been a club member for eight years, enrolled in corn, poultry, pig, and cotton projects. In 1924 Ford was president of his county club federation. He has participated in sixteen different demonstrations. In 1921 he was state pig club champion. "I started with the corn project in 1917," said Ford. "I try to make my club work better each year."

In the Junior Live Stock Judging Contest, some 20 state teams competing, the Kansas team composed of Carl Garrett, Edgar Webster, and Ralph Grose, won first. Carl Garrett tied with Stanley Ganekas of Nebraska for top honors as an individual judge. The team was coached by Lawrence F. Hall, agricultural teacher in the Burlington High School.

A health contest to determine the health champions of Clubland was held early in the week. Nearly all of the forty-one states were represented. Coe F. Emens, Jr., and a Hoard's Dairyman Junior, Hillsdale County, Michigan, was declared the champion health boy. He is seventeen years old and drinks plenty of milk. He attributes his good health to the fact that he comes from a healthy family. His grandfather is 92 and his grandmother 91 years old. Coe has four brothers and four sisters. Basket ball, baseball, and swimming are his favorite sports. When he finishes high school he is going to an agricultural college to prepare himself to be an "Ag" teacher.



INEZ HARDEN, MISSISSIPPI, CHAMPION HEALTH GIRL

Inez Harden, with a score of 99.4%, was the healthiest club girl in the United States. She is sixteen years old and hails from the state of Mississippi. This is the second consecutive year that a girl from Sunflower County, Mississippi, has won this honor. Gladys Hughes, last year's champion, and Inez Harden are close friends.

Inez is 62 inches tall, weighs 117¾ pounds, is in tenth grade at school, works out doors picking cotton and indoors doing house work, is the third child in a family of four girls and one boy, and has been a member of garden and clothing projects. She is a star guard on the high school girls' basket ball team. She likes to swim and ride horseback. She goes to bed at eight o'clock and gets up at six thirty.



THE FLAG RAISING CEREMONY AT THE CLUB "HOME" AT THE 1924 INTERNATIONAL LIVE STOCK SHOW. B. F. HEIDE, SECRETARY OF THE SHOW, IS SPEAKING

She drinks about a quart of Jersey milk every day. The fruit in her diet consists of apples, oranges, grapes, pears; she is especially fond of vegetables such as fresh tomatoes, peas, beans, carrots, turnips, and turnip greens. She was the only girl in the contest to have a perfect score on her spine. Part of this can be attributed to the fact that she wears low heels. For the past year she has taken regular exercises, muscular and deep breathing every morning. She cleans her teeth after each meal.

Calvin Coolidge was a distinguished visitor at the Club Congress Thursday, December 4. President Coolidge inspected the exhibits and listened to a demonstration given by the Iowa bread team. The club members' parade in review before the President was a big feature on the evening's program.

The National Boys' and Girls' Club Committee has fostered this annual gathering of club champions of the United States. G. L. Noble, executive secretary of the committee, deserves a world of credit for the splendid fashion in which the Third Annual Club Congress was put over. Many club leaders participated to make the event a success and credit should be given to the following: the executive committee consisting of R. A. Turner, U. S. Department of Agriculture, chairman; Mrs. Della B. Alley, Mississippi; W. J. Jernigan, Arkansas; Miss Marjorie E. Luce, Vermont; Theodore T. Martin, Missouri; Miss Elmina White, Washington.

General superintendent for the Club Congress was Paul C. Taff, Iowa; in charge of home economics exhibits, Miss Nathalie Vasold, Illinois; home economics judge, Miss Hazel Spencer, New York; 4-H Club Girls' Style Show in charge of Miss Maude E. Wallace, North Carolina; home economics demonstrations, Mrs. Della B. Alley, Mississippi; judge home economics demonstrations, Mrs. J. E. Waggoner, Chicago; crop and live stock demonstrations, Wakelin McNeel, Wisconsin; judge agricultural demonstrations, H. A. Stone, North Carolina; health contest, Miss Josephine Arnquist, Iowa; home economics judging contest, Miss Doris Ingram, Montana, and Miss Jessie Greene, Nebraska; educational tours, L. I. Frisbie, Nebraska, and W. H. Palmer, Ohio; song leader, Earl J. Cooper, Holstein-Friesian Association.

Everyone of the 1,300 champions who attended the Club Congress carried back with them an inspiration and a message to "carry on" in club work. We are proud to say that there were quite a good number of Hoard's Dairyman Juniors who won trips to this great club event.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

A most interesting story of the origin of the Ayrshire breed of dairy cattle begins in the December 26 issue of Hoard's Dairyman. There are other good articles.

What are the business methods followed by successful dairymen? E. B. Fitts of Pennsylvania names and discusses five essentials: (1) he provides his cows with an abundance of the right kind of feed; (2) has real working ability in his dairy cattle; (3) looks carefully after the health and comfort of his herd; (4) produces quality products; and (5) believes and takes pride in his work.

What is meant by "grading" as applied to milk? Grading means to divide the milk supply into certain classes according to its quality. The highest grade is usually a rather small part of the product and has received the best care.

Name some advantages of grading. Grading will reward the careful dairyman and will raise the standards of the less careful. The cheap, careless competition tends to be eliminated.

What is certified milk? This is milk produced under the supervision of a medical milk commission who make regulations for the production, handling, and delivery of certified milk. The commission employs veterinarians, physicians, bacteriologists, and chemists to report frequently on the health of cattle and employees, sanitary conditions on the farms, bacterial counts, and chemical analyses of the milk.

Where, how, and about when did the Ayrshire breed originate? In the county of Ayr, Scotland, about the year 1700 the development of the Ayrshire probably got its start, tracing back to the wild white cattle which once overran Great Britain.

A New Year's Resolution

"I pledge my Head to reason, my Heart to loyalty, my Hands to service, and my Health to efficiency for the good of *my country, my community, and my home.*" So states the pledge of boys and girls belonging to 4-H agricultural clubs. If more of us followed such a pledge, wouldn't this be a better world?

You are probably familiar with the old saying, "Make your head save your heels". Our heads were given us for the purpose of thinking and reasoning, and not to use as battering rams or hat racks. We may use our hands to make a living, but at the same time our work is in vain if we have not rendered some service to mankind. In our hearts should be a kindly and willing spirit. Forget not that health is important, for upon a strong, rugged physique rests much.

Read again the last part of the pledge—"my country, my community, and my home". Every person owes allegiance and his last full measure of devotion to his country. Our country is built up of communities, the same as a strong foundation is built of bricks or stones and mortar.

But "my home"—don't those words have a glad ring to your ears? We once heard a state governor refer to the home as the smallest unit of government. Are there two words with deeper significance than *my home?*

Let us all make the 4-H club pledge a New Year's resolution!

Sing Songs

Miss Anita Burnam, Assistant State Club Leader in Kentucky, has compiled a very splendid collection of favorite songs that are suitable to sing upon almost any occasion but are especially adapted for club work. Those interested in this new publication will do well to get in touch with Miss Burnam at the University of Kentucky, Lexington, Kentucky. The plates are available so that leaders could publish them at reduced rates. The book is adaptable for singing in any state.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

The baby beef feeder got his watch

Letter from Ohio's Boy Champion Baby Beef Feeder for 1924

DR. HESS & CLARK, Inc. Dec. 9, 1924.
Ashland, Ohio.

Gentlemen:

In the fall of 1922 I decided to enter the boys' and girls' Baby Beef Club.

These beeves were put out by the Montgomery County Fair board, among boys and girls of Montgomery County.

These beeves were fed by boys and girls and exhibited at Montgomery County Fair. I met with defeat, as I obtained ninth prize.

Last fall I decided to raise another one. So on November 17th I received my Aberdeen Angus beef to be raised for the Fair of 1924.

The first month he gained only five pounds and did not eat well. At the beginning of second month I began to feed Dr. Hess Stock Tonic, along with his daily rations. At the end of second month he gained sixty-five pounds.

As I saw it was a great help in making him gain more, I continued feeding the Stock Tonic.

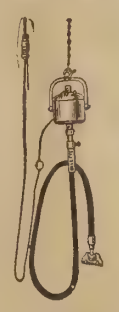
On 1st of September I exhibited my Baby Beef at Montgomery County Fair. On September 2nd the thirty-one beeves were judged—I obtained first prize in county and first in State of Ohio.

It made a gain of 525 lbs. in 290 days.

The prizes I received were trip to Columbus, trip to Chicago and gold watch, given by American Angus Association.

I feel as though it was through the feeding of your Stock Tonic that I obtained first prize. I wanted you to know this, as my experience may be of great benefit to other stock raisers.

Yours very truly,
LORNE B. GILBERT,
Germantown, Ohio, R. F. D. No. 1.



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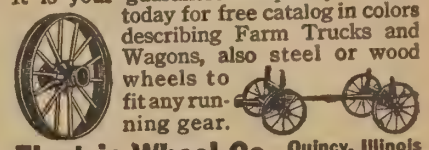
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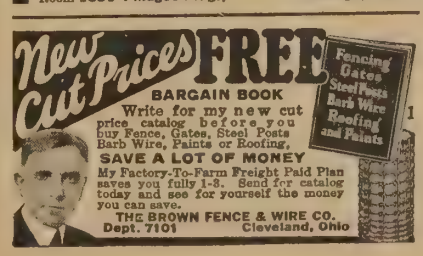
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The rate for advertising in this department is 12 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 8c per word.

STOCK FOR SALE

Registered Holstein bulls and heifer calves. Homestead and Matador breeding, $30 and up. O'CONNOR BROS., Watertown, Wis. 21-6

Western Dairyman—for sale, one hundred seventy-five high grade Holstein cows and heifers. Seventy-five dollars carload lots. WILLIAMS BROS, Lamar, Colorado. 21-6

Registered Holsteins—Springing heifers and cows bred to thousand lb. Homestead sire. Accredited. WINCOWIS FARM, Neenah, Wis. 22-4

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

For Sale—Carload of Holstein springers from 3 to 6 years old. T. B. tested. E. E. LEWIS, R. 3, Racine, Wis. 23-4

Holstein Bull—Get pedigree. Three of his dams averaged 108 pounds milk 1 day. 40.48 pounds butter 7 days. $100. ROY HARRIMAN, Appleton, Wisconsin. 23-8

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

Registered Holsteins. Heifer calves, sired by blue ribbon bull, whose three nearest dams average 23,183 lbs. milk; 1016 lbs. butter per year. $30 each. Accredited herd. EDWARD BREWIN, Sullivan, Wis.

Dairymen, Farmers—We have 12 high grade Holstein cows and heifers, to be fresh soon. Also 1 young fullblood Holstein bull. These are priced for quick sale. Call or write. BARRETT & ZIMMERMAN, Midway Horse Market, St. Paul, Minn.

For Sale—Ten high grade Holstein springers. $75.00 per head. JOHN PETERSON, Waupaca, Wis. 25-2

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

City View Farm offers for sale Guernseys, male and female, of all ages; May Rose Langwater breeding out of good A. R. dams Federal accredited herd. O. R. SCHWALEN, Roberts, Wis. 20-*

Write for sale list of 11 Registered Guernsey bulls, 2 to 12 months, 6 have dams and grandams with A. R. records averaging 732 pounds fat. Accredited herd. HOMER RUNDELL, Livingston, Wis. 22-*

For Sale—23 2 year old Guernsey heifers, high grades $65.00 each. DUTTON & CORT, Galesville, Wisconsin. 24-3

For Sale—Registered, T. B. tested, 2 year Guernsey bull, Ne Plus Ultra breeding, from the famous Chas. M. Schwab herd. SETON HILL COLLEGE FARM, Greensburg, Pa.

For Sale—a few Brown Swiss bull calves, pure bred and grades. Here is an opportunity to get started with a Brown Swiss herd. Address WINDHAM FARM, Harvard, Ill. 25-2

Two Pure Bred Jersey Yearling bulls. Ready for service. Herd accredited. No abortion. RAVINE FARM, Highland Park, Ill. 23-3

For Sale—Ayrshire bred heifer and heifer calves. Also a young bull. Whitehall breeding. J. A. DALTON, R. 2, Oconomowoc, Wis. 24-2

STOCK BUYER

Holstein-Guernsey—Will assist you in buying dairy cattle of any kind, grade or pure bred. GEORGE McELROY, Hortonville, Wis. 14-tf

HORSES

For Sale—Registered Belgian horses, both sexes and all ages. NORRIS LAND CO., Glenwood, Minn. 25-4

For Sale—Perfection milking machine, 2 double units, never been used. NORRIS LAND CO., Glenwood, Minnesota. 25-4

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hunting Hounds, Feeds, Medicines, Supplies. Catalogue. KENNEL JOURNAL, Herrick, Ill. 23-4

Scotch Collie Pups bred from real heeling stock. $5.00 each. Trained dogs eight months old, $15.00. S. C. BUSH, Maple Grove Farms, Pope Mills, New York. 23-4

For Sale—Two half grown Shepherd dogs. $4.00 each. ROBERT ZASTROW, R. R. 2, Juneau, Wis.

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Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

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We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

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Patent-Sense—Free book for inventors seeking largest deserved profits. Write LACEY & LACEY, 753, F. St., Washington, D. C. Established 1869. 19-52

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Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

Alfalfa Hay For Sale—Write for delivered price, ALBERT MILLER & COMPANY., 192 No. Clark St., Chicago, Ill., or call our representative LaCrosse, Wisconsin. Telephone 851-A. 19-*

First cutting baled alfalfa hay cured in cocks under cover in field. Price $20.00 per ton, F. O. B. Fort Atkinson. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wisconsin. 23-3

Hay for Sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 23-Spl

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-Spl

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Jacques' Seed Corn—North Wisconsin grown, field selected before killing frosts, thoroughly fire-dried, every bushel tested, 95-100% germination and strong vitality. 30 day's trial, money back guarantee. Golden Glow. Cold Resistant Golden Glow. Wisconsin No. 8, Rustler White Dent. Write for booklet. WM. H. JACQUES, Neilsville, Wis. 25-Spl.

Bargain Prices on 1923 Minnesota grown seed corn, grass seeds, seed grains. Write today. NORTH STAR FARM, Cokato, Minn. 23-4

Molasses Feed. 16% protein high class, milk making feed. Put out by specialists in economical feeds. Also "Your Own Mix" molasses feed; mix it yourself. Buy right, buy in car lots at rock bottom. C. E. DINGWALL CO., Milwaukee, Wis. 24-4

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Sota hog and stock mineral. One dollar per hundred. Dept. B. FOWLER & PAY, Mankato, Minnesota. 24-6

100 lb. Sack of Mineral feed especially for cows and calves. Trial sack of 100 lbs. $3.00. Wrie for booklet. A. B. RAYBURN, Litchfield, Minn. 25-9

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FEED BAGS

We are now paying higher prices for empty feed bags. Write for quotations. THE DAYTON BAG & BURLAP CO. Dayton, Ohio. 23-*

TOBACCO

Tobacco—Three year old leaf, 8 lbs. chewing, $2.60; 8, smoking, $2.20; 8 second smoking, $1.40. Pay for tobacco and postage when received OLD HOMESPUN CO., Hawesville, Ky. 22-4

Homespun Tobacco—Chewing, 5 lbs., $1.50; ten, $2.50. Smoking, 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and recipe free. FARMERS UNION, Paducah, Ky. 25-4

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

We pay $200 monthly salary, furnish car and expenses to introduce our guaranteed poultry and stock powders. BIGLER COMPANY, X643, Springfield, Illinois. 25-13

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Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—No. 15 De Laval separator with power attachment. Good as new, guaranteed. $75.00. Also three registered Guernsey males. EARL W. HAMMOND, Rockport, Indiana. 25-2

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Wanted—A real cheese maker who can invest $2,000 in a $15,000.00. Good opportunity with a good salary attached. Write CHAMBER OF COMMERCE, Coffeyville, Kansas. 24-2

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"Star of My Memory Shine On" 15c. BYRON OLDS, Galesville, Wis.

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Ground Limestone for the soil, delivered prices. Dept. B. FOWLER & PAY, Mankato, Minn. 24-6

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Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

Milkmen—Use Fiske's Loose Leaf Route Book. Write for description. P. BAKER FISKE, Attleboro, Massachusetts. 22-4

FOR RENT

Dairy farm for Rent on shares. About 240 acres 120 under plow, balance pasture. Pasture situated on Rock River and is very good. Farm located on Rockton Road one mile south of Beloit. GEORGE W. SHAW, R 1, Beloit, Wis. 23-3

Rent on Shares—160 acres, modern buildings, 40 cows tractor. WERNER FARM, Kenosha, Wisconsin. 24-2

For Rent—A-1 stock and grain farm, 200 acres, with good buildings. 1½ miles north of Wheeling, Illinois. Rent $6.00 an acre. DAVID K. TONE, 1101 Otis Bldg., Chicago Ill. 24-*

For Rent—Two dairy farms, 80 and 200 acres. City Limits. A. T. Bennett, 330 Commerce Building, Sioux City, Iowa.

Two Dairy Farms for rent near Janesville 266 and 110 acres. Good soil and buildings. JOSEPH FISHER, Janesville, Wisconsin. 25-2

Wanted—Farmer with own help and equipment to operate crop farm on share basis. Good productive farm, about 450 acres, 150 acres in alfalfa; modern house, close to city schools. Address HARVEY F. RHODES, R. 1, Ypsilanti, Michigan.

FARMS FOR SALE

California State Land Board has a number of desirable irrigated farms of twenty and forty acres in San Joaquin Valley for sale to bona fide farmers on 36½ years' time. Complete irrigation system. Price per acre varies according to location. Five per cent of purchase price payable when deal is made; remainder in semi-annual installments extending over a period of 36½ years, with 5 per cent interest annually. Your opportunity to acquire a farm in winterless California. All deciduous fruits profitably grown; alfalfa is a paying crop. Ideal conditions for stock and poultry. Good schools and unsurpassed roads. Fruit associations market your crops, relieving you of marketing problems. You can farm all year in California. Splendid opportunities here for the man of moderate means. State Board's pamphlet, also Santa Fe illustrated folder describing San Joaquin Valley, mailed free on request. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Ry., 951 Railway Exchange, Chicago. 23-Spl.

Dairy Farm for sale consisting of two hundred eighty acres; sixty acres of good alfalfa, twenty five acres sweet clover pasture, sixty acres of corn ground, twenty five acres of timber land, balance pasture land; creek running through pasture fed by springs that run the year around. Good house, 28 by 32, full two story, 28 by 18 basement. Modern hog house for twelve brood sows, good cow barn holds twenty eight cows, one hundred fifty ton Vitrified Tile Silo. Three miles to R. R. station, rural mail and school route by farm. Sixty head of registered Holstein cattle. Present herd sire, Johanna Lad Pontiac Colantha, No. 530031. I am located in the great corn and alfalfa center of Nebraska. Failing health is my reason for selling out. E. J. PETERS, St. Michael, Nebr. 25-4

For the Best Money making dairy proposition write for particulars to WINWOOD DAIRY FARM, Burlington, Kansas. 25-2



Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Wanted at once, man who can milk 20 head of cows. Wages $60.00 and board. QUINCY JERSEY LIVE STOCK CO., Y. B. Luchsinger, Mgr., Quincy, Florida. 23-3

Couple age 20 to 35 preferred. Man, qualifications, dry hand milker, neat appearance, honest. Duties, principally milking and delivering route about 120 quarts. Wife, assist house; State wages expected. BOX 73, Ontonagon, Mich. 24-2

Mail Service Employees Needed. For instructions write FRANK PERGANDE, 35-937, Bartlett, Milwaukee, Wisconsin. 25-Spl.

Experienced man for bottling room, to help with milking, short retail route. Must be clean, agreeable, capable of producing low bacteria count milk. Good wages. PROSPECT HILL FARM, Granville, Ohio.

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5 Brooklyn, N. Y. 25-5

Wanted—Single Hollander, good dry hand milker and experienced in feeding and caring for cows and young stock. Wages $60.00 board and room to start. Address HARVEY F. RHODES, R. 1, Ypsilanti, Mich.

Wanted—Single man for dairy and general farm work. Steady job for right man. State wages in first letter. LAWRENCE BAKER, Stitzer, Wis. 25-2

Wanted—Young married man to take care of 20 Holstein cows and to work in milk house. De Laval Milker. Must be experienced, clean and progressive. MILLER'S DAIRY, Metropolis, Illinois.

Wanted—Clean reliable single man to do barn and dairy work, also assist on milk route. Must be experienced. Give reference. BOX 87, Genoa City, Wisconsin. 25-2

Cow Man—Good, fast, dry hand milker; practical feeder; calf raiser. Guernseys. New Jersey. By year, month's trial. Worker wanted, not an educated herdsman. State wages expected first letter. Address BOX 392, Care Hoard's Dairyman. 25-Spl.

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted—Positions as herdsmen, farm assistants, dairymen, cow testing association men, orchard men, poultry men, by graduates of The National Farm School, Farm School, Pa. These young men have had practical experience in feeding, milking, handling horses, and tools, operating tractors, operating incubators and brooders, herd equipment and most ordinary farm machinery. 24-4

Position Wanted—test cow milker, milker, barn man. Experienced. Come at once. State wages. number cows to milk. Address BOX 387, Care Hoard's Dairyman. 24-2

Position Wanted as herdsman. Single man age 35. Experienced in A. R. O., certified milk, butter making. A-1 feeder and calf raiser. State wages. Very best references. Address BOX 391, Care Hoard's Dairyman.

Wanted—Work on dairy farm; dry milker, age 19, good habits. LOUIS PUSEL, Care Theo. Sillman, R. 3, Ladysmith, Wis.

Wanted—Position as manager large stock farm. Wisconsin College training with 20 years practical experience with pure-bred stock and production of certified milk. Only a high standard agricultural enterprise considered. Married. Reference. Available March 1st. Address BOX 383, Care Hoard's Dairyman. 24-2

Creamery Superintendent and sixteen years experience handling milk, cream, butter, ice cream, casien, and condensed milk; can handle help. Reference. Address BOX 394, Care Hoard's Dairyman.

Young Man experienced with dairy cattle wants job on large modern dairy farm. Address BOX 393, Care Hoard's Dairyman.

FARMS FOR SALE

An Opportunity—Modern dairy farm adjoining good city 10,000 in southeastern Nebraska; barn is steel equipped; electric lights; city water. Will stable 70 head of cattle. Two excellent dwelling houses. Well established retail trade; 65 registered Holsteins, bottling and delivery equipment. Horses, tractor and all necessary machinery. Farm consists 150 acres fertile bottom land; 30 acres alfalfa; 30 acres blue grass pasture; some timber. Situated gravel highway. Will sell entire layout or herd and land separate. Terms to responsible party. Address BOX 390, Care Hoard's Dairyman. 25-4

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

"Wisconsin Opportunities—Free Wisconsin bulletins. Soil climate, crops. IMMIGRATION DIVISION, Wisconsin Dept. of Agriculture, Capitol 25, Madison, Wisconsin." 19-8

Improved farm in Minnesota and North Dakota can be purchased on 34 years time on small cash payments by persons who have their own help, equipment and live stock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Railway, St. Paul, Minn. 22-*

For Sale—Dairy farm, well equipped, metal silo, near market, milk selling 20 cents. Splendid climate. Costs nothing for valuable information. Aged owner. L. B. 394, Southern Pines, N. C. 23-4

Wonderful Opportunity—This 75 acre farm located in the best farming section of Pennsylvania; 10 room brick dwelling, large bank barn, good set of outbuildings, 9 acres heavy timber, 6 meadow, with running stream, 10 wheat; chestnut and red shale soil; 4 good horses, 10 cows, 7 hogs, 200 chickens all machinery and farm implements, also crops at field and barns included. Price $11,000, half cash required. Apply HANS ENGER, Perkasie, Pa. 24-3

Sheboygan County dairy farm, 80 acres, good buildings, fine clay loam soil. $100 per acre, convenient terms. Or will trade for town property. D. UTTER, Laack Hotel, Plymouth, Wis. 25-2

Wanted 1000 Good Dairymen—Good low priced land. Good green grazing year around. Good creamery. High prices for dairy products. Splendid climate. Fine people. Fortunes can be made here by real dairymen. For particulars write F. P. STUBBS, Eatonton, Georgia. 25-4

Why rent when you can buy for less money? North Dakota offers you that opportunity. Authentic information. GREATER NORTH DAKOTA ASSOCIATION, Va'' y City, N. Dak., Box 105.

Administrator's Land Sale—In order to close an estate, I'm offering one of the very best grain, dairy, or stock ranches in the Famous Judeth Basin Montana at a sacrifice price. 1440 acres improved and plenty of water to irrigate in dry seasons. Will divide if necessary. B. F. GORDON, Adm., Straw, Mont. 25-4

Soy Beans and Clover Hay Versus Alfalfa

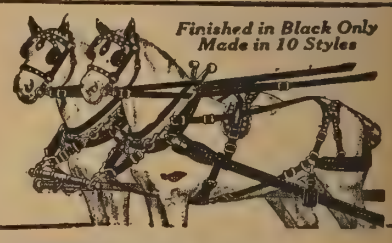
The Pennsylvania Agricultural Experiment Station has completed some feeding experiments comparing soy bean hay and clover hay with alfalfa when fed to dairy cows.

During the winter of 1923-24 ten Holstein cows were used in a nine weeks' duration trial. The soy bean and alfalfa hay used was of good quality. The cows were all in a high state of lactation.

The cows receiving soy bean hay produced 3.3 per cent less milk than those receiving alfalfa hay. As an emergency hay crop for dairy farms soy beans are highly recommended.

A feeding trial of six weeks' duration was conducted comparing red clover hay with alfalfa hay for milk production.

The cows receiving the clover hay produced 6.5 per cent less milk than those receiving alfalfa.—Pennsylvania Experiment Station, Bulletin No. 188.



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Foreign Visitors

From the limitless Russian steppes and from the hills and hollows of bonnie Scotland they come to study Badger farming.

Hearing much about the condition of dairying in Wisconsin, N. Kondratjeff, professor of economics at the Agricultural Academy of Moscow, included the University of Wisconsin and its agricultural college in his itinerary of American farm schools recently.

Kondratjeff is a keen student of agricultural and political affairs in Russia, and while in Madison was particularly interested in the typical dairy farm. His plan was to learn about the development of dairying in the Badger State, with a view to finding out whether similar systems of farming might be applied to Russian agriculture. He also secured first hand information concerning agricultural extension methods in use in Wisconsin.

Another recent visitor to the Wisconsin College of Agriculture was Renwick Hutson Leitch, head of the dairy department at the west of Scotland Agricultural College, Glasgow University. Leitch is visiting the agricultural colleges and experiment stations in the Middle West, the East, and Canada. He carries a traveling fellowship from the British government and is in the country to study the methods of dairy husbandry and of bacteriology in the nation's farm schools.

The man from Scotland was favorably impressed with the extensive methods used in American agriculture. Dairying, he said, is carried on in the home of the Ayrshire cow on a much smaller scale than here. Land holdings are small, compared to the American way of doing things. They have few silos, as the climate does not encourage the growth of silage crops in Scotland.

Speaking of his own country, Leitch declared, "All of our dairy cattle are pure-breds, and one-half of these are in cow testing associations. Our aim is to breed cattle for high production in all stock, rather than to depend on a large number of animals to provide the market with milk."

Leitch pointed out that since most of the milk produced in Scotland is sold for immediate consumption, the milk is sold on the basis of percentage of butterfat. Butter is imported in large quantities from Denmark and New Zealand.

Among the changes evident throughout the north country in recent year is the coming of the Friesian dairy cow from Holland and Denmark. The "Black and White are becoming increasingly popular among Scotch farmers in spite of the long standing of such breeds as the Ayrshire However, Leitch adds, the Friesians occupy only the lowlands and cannot compete with the sturdier Ayrshire in the highlands."—Wisconsin College of Agriculture.

FORWARD WISCONSIN
FARM FACTORY COMMERCE

What Industry is Doing for Your Community

THE country village becomes a busy city when industries are founded and thrive. Money paid for wages and materials means happy homes, good schools and churches, more and better opportunities for our children and ourselves.

Wisconsin Needs Her Industrial Cities

They furnish home markets for our farmers, employment for our citizens, trade for our merchants. They pay much of the cost of Government, and bring in, according to U. S. Census figures, $1,846,984,000 from the sale of Wisconsin-made products. Sheboygan and Kohler, for instance, make a home and factory community that is a wonderful asset to Wisconsin.

The varied products of its 64 factories are sold throughout the world, more than ninety per cent being shipped out of the state, spreading Wisconsin's fame and bringing millions of dollars into the state.

This community furnishes employment to thousands of men and women. Its population has increased 5,150 in five years. A large percentage of the families own their own homes, bought with money made through the factory-built progress of the community. Practically all of the factories here are home owned and are Wisconsin corporations.

Such a community is a credit to our state and an example for our people. Its prosperity, and that of every other Wisconsin community, can be maintained and increased if our producers, both of farm and factory, are on an equal footing with those of competing states. Every Wisconsin citizen should demand fair laws for Wisconsin industries, to the end that industries may build greater prosperity for the communities of our state. For as industry grows, the community grows and prospers.

Send for free booklet: "The Story of Wisconsin"

WISCONSIN MANUFACTURERS' ASSOCIATION, Madison, Wis.

THE COMMITTEE IN CHARGE OF THIS "FORWARD" PROGRAM IS:
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FARM AND FACTORY MUST PROSPER TOGETHER

Report on Farm Labor

The problems of the farmer in need of labor, the problems of the farm laborer in need of a job, the great waste resulting from the lack of an organized effort to bring the laborer and the farmer together, and methods of overcoming these difficulties are the subject of a large part of the report on public employment offices which has just been issued by the Russell Sage Foundation. The report is the result of a five-year study of employment methods, needs, and agencies, which took the investigators of the Foundation into every important agricultural section of the country and into more than 70 cities including practically all those in which labor is recruited.

Copies of the report may be secured at the headquarters of the Foundation, 130 East 22nd Street, New York.

First Plans for 1925 Holstein Convention and Sale

First plans for Michigan's role as host for the 1925 annual meeting and sale of the Holstein-Friesian Association of America, were recently laid by members of the State Holstein Board and other interested Michigan Holsteiners.

M. W. Wentworth, president of the Michigan Association, was elected chairman of a committee of three to have complete charge of the meeting and sale. Mr. Wentworth has "been through the mill"—he having been an active member of the committee that handled the entertainment of the convention held in Detroit in 1916.

Dudley E. Waters and Horace W. Norton, Jr., were the other two members elected. Mr. Waters—a lifelong resident of Grand Rapids—will be well suited to handle local arrangements in the convention city. Mr. Norton has been a director of both national and state associations for years; consequently he is in a position to facilitate handling of the business of the National Association attendant at the 1925 convention.

J. G. Hays, state secretary for the Michigan Association, will, of course, function as chief assistant to this general committee.

No plans have been given out as yet except that two whole days will be devoted to the delegate meeting instead of one as formerly. This should make for an orderly transaction of business with opportunity for each delegate to assist. As to the sale—plans include selling only 60 head in a one-day sale, the offerings to be of such high quality as to insure an excellent average sale price.

SALE ANNOUNCEMENTS

Jan. 7—Guernseys. Dispersal of A. C. Loring, Woodend Farm Herd at Fond du Lac, Wis. Charles L. Hill, Sale Mgr., Rosendale, Wis.
Jan. 8—Guernseys. Dispersal of R. K. McDonald herd at Fond du Lac, Wis. Charles L. Hill, Sale Mgr., Rosendale, Wis.
Jan. 14-15—New York State Holstein Sale, Syracuse, N. Y.
Feb. 17—Holsteins. Sherman Bros. Dispersal at Waterloo, Ia. Iowa Holstein Breeders' Association, Mgrs.
Feb. 24—Holsteins. Dairy Center Sale, Owatonna, Minn. Twin City Pedigree & Service Co., Managers.
Mar. 10—Holsteins. Iowa Spring Guaranty Sale at Waterloo, Ia. Iowa Holstein Breeders' Association, Mgrs.
April 29-30, May 1—Holsteins. Fourth Brentwood Sale to be held at Abington, Pa.

Beauty is the stamp that nature put on virtue.—EMERSON.

Says Sam: When silence lends consent it sometimes doesn't lend much.



A Happy New Year

SOPHIA K. ORMOND

"Hark, friends, it strikes; the year's last hour:
A solemn sound to hear.
Come fill the cup and let us pour
Our blessings on the parting year.
The years that were, the dim, the gray,
Receive this night with choral hymn
A sister shade as lost as they
And soon to be as gray and dim.
Fill high. She brought us both of weal and woe
And nearer lies the land to which we go."

A Happy New Year to you all!

Here we stand at the parting of the ways, wishing everybody a lot of happiness and hoping we will enjoy a good measure of it ourselves, just as though happiness could be measured out by such and such a number of well wishers. As a matter of fact, all the good wishers in the world can no more than wish. "Happiness must be earned," so Douglas Fairbanks tells us in his wonderful Arabian Nights tale: "The Thief of Bagdad".

Happiness must be earned and this first day of the year is a good time to think about the ways in which it may be won. The world is full of stories of brave heroes who won happiness and lived happily forever after.

Just ordinary mortals like we are do not find happiness to be like a distant star that may be reached and won. More often we find it like the many-headed hydra Hercules set out to slay. As soon as he had cut off one head, two others grew rapidly in its place. So also do we find that as soon as we have gained one thing that makes us happy, there are a dozen or so new wants springing up in the place where the one was. And if we had all the dozen other things, perhaps we would be as far from complete happiness as we are now. Then, after all, happiness does not consist so much in gain as we once thought it did.

Neither does happiness always come with greatness, fame, or power. Once there was a little girl who was sure that it did. She thought she could be happy if she had not been born to poverty and work. She wanted to be somebody else, somebody who was not always a victim of circumstance. She was a good and sweet little girl whose name was Pippa.

Pippa was a silk winder in one of the mills of Alsolo. She had but one holiday all the year round and that day was New Year's Day. She resolved on this day to enjoy the holiday to its limit by being that somebody she so envied. She chose to be, in turn, the four people she considered the most fortunate people in the world and put herself in their places.

But Pippa saw these fortunates only from the distance, and saw only through the enchantment that distance yields. Viewed closer these seemingly fortunate people had enough troubles of their own and carried heavier burdens than a little innocent girl like Pippa could carry. But Pippa passes each of the four characters and in her own simple way sings her beautiful song:

"The year's at the spring
And day's at the morn;
Morning's at seven;
The hillside's dew-pearled;
The lark's on the wing;
The snail's on the thorn;
God's in heaven—
All's right with the world."

The words of this beautiful song fell upon the ears of a murderer, one of the very people Pippa had believed to be so ideally happy. As he hears and ponders over her words, he is brought to see his duty. In his repenting spirit he exclaims:

"That little peasant's voice
Has righted all again. Though I be lost
I know which is the better, never fear,
Of vice or virtue, purity or lust,
Nature or trick! I see what I have done,
Entirely now! Oh I am proud to feel
Such torments—let the world take credit thence—
I, having done my deed, pay, too, its price."

After her day's experiences, Pippa decides that after all she would rather be Pippa who must earn her bread and milk the whole year round by winding silk than to be someone she is not. She came to believe that it is better to pass each and see their happiness and not envy any of them. She comes to the conclusion that she can be just as great and as useful in her own capacity as others are and just as dear to God which, of course, she was. So she goes to bed at night ready to wind silk for another year and prays:

"God bless me! I can pray no more tonight.
No doubt, some way or other, hymns say right.
All service ranks the same with God—
With God, whose puppets, best or worst,
Are we: there is no last or first."

There is another New Year's hymn which "says right", and we would live much happier if we lived in accord with it. It includes the following lines:

"Day by day the manna fell
Oh, to learn this lesson well!
Still by constant mercy fed,
Give me, Lord, my daily bread.

"'Day by day the promise reads,
Daily strength for daily needs:
Cast foreboding fears away;
Take the manna of today.'"

How much happier all of us could be if we worried less about what happened yesterday and last year and the year before last. That's all dead and gone. "Let the dead past bury its dead," as Peabody says. "Leave them behind and thank God you are able to leave them."

I once knew a woman who had an operation many years ago. I think she never had any more to worry about than that operation. She has worried about it every day since and keeps on adding to her own misery by living in constant fear that she may have another some day. As a result of her grieving she has cultivated a typical "ouch" face. What is worse, she describes pains and symptoms so accurately that anyone listening to her will almost immediately get affected with the "ouch" feeling.

What is the use of constantly reviewing past troubles? Why not give tomorrow's sorrow a chance to come before we begin worrying about it. The chances are that it will never take the shape we are dressing trouble up in with our imaginations.

Let us not make ourselves miserable before our time, but put away all worry of past and future. Let us not enlarge or create or anticipate new troubles, for in such thoughts there can be no happiness for the new year. Let us rather try to find true worth in small parcels and gain our happiness by faithfully doing the small things every day. On this day of good resolutions we may well review Phoebe Cary's beautiful poem on how to gain a little happiness and satisfaction for ourselves. It is as follows:

"True worth is in being—not seeming:
In doing each day that goes by
Some little good—not in dreaming
Of great things to do by and by.
For whatever men say in their blindness
And in spite of the fancies of youth,
There is nothing so kingly as kindness
And nothing so royal as truth.

"We get back our mete as we measure.
We cannot go wrong and feel right,
Nor can we give pain and feel pleasure
For justice avenges each slight.
The air for the wing of the swallow,
The bush for the robin and wren,
But always the road that is narrow and straight
For the children of men.

"We cannot make bargains for blisses,
Nor catch them like fishes in nets;
And sometimes the thing our life misses
Helps more than the things which it gets.
For good lieth not in pursuing
Nor in gaining of great or of small;
But just in the doing and doing
As we would be done by—that's all."

Medallion Trimming

It makes my back ache and my eyes hurt every time I see a woman at the embroidery counter of a store buying a lot of floss and things to do an intricate "piece". My nearest neighbor took first prize at the fair this year on that sort of work but what a price she paid in eye strain and tired nerves! You always want to do just one more leaf or group of French knots and when you get them done you are usually in a perfect frenzy to start another piece.

Doctors say that simple fancy work is restful and good for the type of woman that we are nearly all getting to be; that is, the kind that simply cannot sit down and keep still but has to be on the move all the time. The kind they mean is the coarse blanket stitching, feather stitching which goes so easily after you have learned it, hemstitching that is not too fine, or simple crocheted edges. Quantities of heavy work are no longer in good taste, anyway, and we should all be glad of it. The nice underwear nowdays never is seen with a crocheted yolk and the craze for table runners and that sort of thing, heavily embroidered, is fortunately dying out.

Medallion trimming is lovely and not very hard to do. There are medallions of all sorts to be had as such or you can buy lace by the yard and cut out the figures. They can be had at practically any price you care to pay down to as low as only a few cents apiece and I think you get more effect for your own work than out of nearly any other kind of trimming.

Butterfly-shaped medallions set into the top and sleeves of a nightgown or teddy bear are very dainty. One nice thing about them is that without

(Continued on next page)

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Miscellaneous Fashions



No. 2266—Becoming Style. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 3¾ yards 36-inch material with ⅝ yard 18-inch contrasting.

No. 1287—Bloomer Dress for Tots. Cut in sizes 2, 4, 6, and 8 years. Size 4 takes 2¼ yards 36-inch material with 4¼ yards of binding.

No. 2100—Stylish Frock. Cut in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 takes 2⅝ yards 36-inch material with 1⅛ yards 36-inch contrasting.

No. 2164—Becoming Dress for Full Figures. Cut in sizes 36, 38 40, 42, 44, 46, and 48 inches bust measure. Size 36 takes 3¾ yards 42-inch material.

No. 1883—Practical Apron Style. Cut in sizes 36, 40, and 44 inches bust measure. Size 36 requires 2⅛ yards 36-inch material.

No. 1597—Rag Toys. These cuddly rag toys can be made inexpensively at home from discarded socks or stocking or colored bits of silk. Cut in one size only. For material requirements, see pattern envelope.

No. 2023—Slip-On Dress for Full Figures. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 takes 3⅞ yards 40-inch material with 1½ yards 10-inch contrasting.

Fashion Magazine

An attractive wardrobe is not entirely a matter of money. It is more a matter of proper selection of styles and correct fit. With the help of our dressmaking Fashion Magazine, the woman forced to be economical in clothing expenditures can dress as well as women of means This book offers a good selection of styles which can be made inexpensively. So in ordering your pattern, we suggest that you enclose an extra 10 cents for a copy of The Fashion Magazine. Address your order to Fashion Department.

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doing any work you can lay them out on the garment and get the exact effect and it is fun to arrange them in different patterns.

The conventional shapes such as squares, diamonds, and circles are very pretty and are by far the easiest to put on. To do this, lay the medallion onto the material smoothly and pin in place. Baste down all edges carefully. Sew down firmly with fine thread all around the edges, remove basting, and cut away material from underneath leaving about one-eighth inch that is to be turned down and hemmed.—LUCY THOMPSON.

What You Can Do

A few months ago School Life published a list of things that anyone who earnestly wants a good school for her children can interest herself in. If you have a neighborhood club and are looking for a project, here is one most worthy.

You can help your school by seeing that:

1. There is heat from a properly jacketed stove.
2. There is a thermometer in every room.
3. There is good ventilation—68 is the desired temperature.
4. There is good light from the left or rear.
5. The buildings are clean.
6. The seats and desks are healthful, comfortable, separate, and adjustable.
7. Books are clean, sanitary, and attractive.
8. There is pure drinking water with sanitary water cups.
9. There is water for washing the hands and also that there are paper towels and liquid or shaved soap.
10. The toilets are sanitary and clean.
11. The building is in good repair.
12. Playgrounds are adequate.
13. There is medical inspection early in the year.
14. You visit the school occasionally and show an interest in the health of the pupils and teacher.—LUCY THOMPSON.

Orange Sponge Pudding

Oranges are a valuable food because of the vitamins they contain and then they are such a good standby when winter has taken away the fresh fruits. This is a good pudding when you don't want a dessert as heavy as pie or other pastry.

Take one-fourth cup of flour and three tablepoons of butter. Cream these together, stir in a cupful of hot milk and bring to a boil. Separately, beat the yolks of four eggs with a teaspoon of orange rind, grated, and two tablespoons of juice. When this is thick and lemon-colored beat in a pinch of salt and one-fourth cup of sugar.

Add this to the other mixture and fold in the stiffly beaten whites of the eggs. Place in a buttered dish, cover, and steam for thirty minutes. Serve this with small pieces of orange cut over the top.—LUCY THOMPSON.

Grape Fruit Plants

Winter is the time when grape fruits are best and we can make them furnish a decorative plant and eat them as well; it is like being able to eat your pudding and keep it, too.

If you will take a small pot with good drainage, fill it with rich dirt, and plant about a dozen grape fruit seeds, it will give you a table centerpiece for all winter. The plant is slow growing but it is worth while as the leaves are very glossy and cheerful looking.

We all get very tired of looking at the same old dusty fern, half dead, all winter, so don't forget to wash the leaves of this or any other plants you have now and then. It makes them look better and if you use mild suds it gets rid of the little pests that are so relentless about boring into the leaves and killing them.—LUCY THOMPSON.

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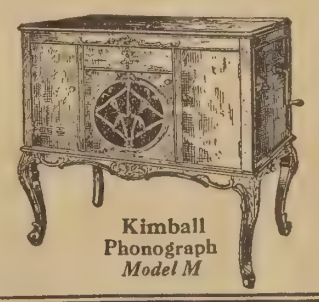
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Kimball Phonograph *Model M*

Rust on Clothing

Sometimes clothes seem to rust in the washing without the slightest cause. If there are no rusty surfaces to account for it you may find it is due to a deposit formed by soap with bluing.

If this is the case it is because you do not get quite all the soap out in the rinsing before you add the bluing. I know that it sounds like heresy but some women—particular ones, too—never blue their clothes at all. That is one way to avoid the rust if you are short of water and cannot be lavish in the rinsing.—LUCY THOMPSON.

Mold on Jelly

If you are having trouble with mold on your jellies and jams you may find it is because they are being kept too warm. Moisture, too, is likely to affect them and the high shelves in the kitchen that are so handy for this sort of thing may prove a poor place to keep them.—LUCY THOMPSON.

The Angle of Your Hat

Men laugh at women about fussing over their hats and trying to adjust them at exactly the proper angle. Now comes a London doctor who says that a man reveals his real self by the way he wears his hat. That is all right if your real self is admirable but according to him many men would do well to study hat positions in order to conceal rather than reveal their true selves.

He says that a hat placed squarely on the head and pulled well forward indicates a thoughtful, almost solemn, wearer while the man who pushes his to the back of his head is careless and happy-go-lucky.

The man who tilts his hat to the right shows himself to be a rowdy but if he pulls it to the left he classes himself with the mentally deficient as that is the habit of a large number of them.

Styles in women's hats require that they be pulled and tilted this way and that in order to get certain smart effects which, of course, we can always use as an excuse for not being classified according to the London physician's rules unless we like them.—LUCY THOMPSON.

A meal well chatted is half digested.

POULTRY On The DAIRY FARM

J. B. HAYES



Tail Ends

When one considers the composition of an egg it is easier to understand why the completeness of a ration should be given due consideration. Although it has often been stated that a hen cannot lay half an egg, it is a fact that a hen, if forced by a lack of material, will do only half a job of laying the number of eggs that she should. The hen is not always to blame for the results that are often credited to her. A shortage of any one of the many materials that are required will immediately result in a decreased yield. She can draw on her body to a certain extent but the available supply is limited.

An egg is a human food rich in many ingredients as noted in the following: 65.7 per cent water; 11.4 per cent protein; 12.2 per cent ash; 8.9 per cent fat.

In addition to converting the materials as found in the feed into a form that is found in the egg is also the necessity of maintaining the body in proper functioning condition.

One of the most often neglected and least understood parts of the ration is the proper supply of the right mineral feeds. There are certain very necessary and extremely important items that are needed for a high rate of production.

How often has one heard of some flock owner feeding broken glass, crockery, mika, grit, and other materials to a flock as a form of grit to make egg shells. This is the least important but the thought of lime was not considered until some soft shelled eggs were received.

Soft shelled eggs are caused by hens being overfat, injury, improper function of the oviduct but apparently never by a lack of shell forming material. When the supply of calcium carbonate is exhausted, the hen will meet the condition by producing a smaller number of eggs. She will deplete her body to a certain extent but will not do a half job by laying soft shelled eggs.

The result of work at the University of Wisconsin shows that oyster shell is superior to meet other forms in furnishing this material. Each of the pens noted in the table below received the same basal ration with a difference only in the source of mineral. The production was higher the first year for the rations all contained meat scrap.

	First test eggs	Second test eggs	Third test eggs
Oyster shell	1606	557	976
Clam shell			916
Dry bone	1033	507	
Lime rock	948	411	879
Quartz	577	221	324
Check	1610	565	1115

In actual practice it will probably be found advisable to allow constant access to oyster shell, lime rock, dry bone, and grit as will be noted from the results of the check pen.

Oyster shell and clam shell are apparently interchangeable as the difference in results between the two are not entirely conclusive. One is not certain in buying as to which form is obtained. Either will be found satisfactory.

Dry bone is vitally necessary in the ration of baby chicks but is optional for mature hens. If a supply can be obtained, better results will be possible. This, too, should be placed in a section of the hopper.

Salt has been stressed as a part of the mash mixture. Care should be exercised in the amount that is supplied as too much will cause death and is worse than not quite enough. For all practical reasons one can plan on using one-half pound to every hundred pounds of mash mixture. Care in mixing is necessary to obtain a uniform distribution throughout the mixture.

Green Feed

There is a long list of accepted forms of green feed that are well adapted to winter feeding and another group that is often used but is not suited. In the list of unsuitable forms are potatoes, pumpkins, and a host of other materials that have no place.

Well cured alfalfa or clover is not classed as really succulent feed but has a high place in the list because of the vitamin content. There is nothing that is more ideally suited, gives better results, or can be handled nicer than the leafy portion of these two legumes. One should collect the leaves that fall off as the hay is put into the barn or that part that is swept up from the feed alley at feeding time.

Although parties have been advised to moisten this with water and feed in a dampened condition, the moistening is very apt to be overdone and a wet, soggy, sloppy mess will result. Well cured, leafy portions may be fed dry just as advantageously with less labor and equally good results. If desired the leaves can be combined as a part of the mash when ground.

Cabbage is a more succulent feed that can be utilized during the early winter. In feeding this, one is primarily interested in the feeding value rather than the exercise. Instead of elevating the cabbage by suspending from the ceiling with a string, forcing the hens to jump, bring it down close enough so that they can eat what they need and want.

Mangels work into the feeding program when the cabbage supply is exhausted. Either slice the mangel and slap on a spike in the wall or construct a regular slat side hopper. This can be V shape with sufficient space between the slates forming the sides so that the hens can eat in comfort.

Never under any conditions feed any material other than grain in the litter. Mangels, cabbage, or other materials will become so dirty and filthy that the hens will not consume sufficient amount and the litter will become damp.

Sprouted oats make a fine form of green feed for parties to use that have the time and facilities to prepare them. Even if the oats are only soaked for a sufficient length of time to allow germination and fed in troughs, greater feeding value is obtained.

Charcoal

Charcoal may or may not be fed as one desires. It, undoubtedly, has a beneficial result in aiding the digestive process when present but also seems to have no harmful effects when dropped. In cases where it is easily obtainable one may feed it in the hopper or combine it as a part of the dry mash mixture.

Aside from the materials outlined no other class of feeds are required. Good production at a reasonable cost can be obtained by this method when properly applied and modified to meet sectional conditions. There is no panacea for egg production except good feeds properly compiled and properly fed to the right kind of hens in the right way.

Sprouting Oats

HOARD'S DAIRYMAN:—In reply to the recent inquiry concerning the sprouting of oats for feeding 800 hens, I will give a method that I have followed with pleasing results.

I get from the grocer 8 compound or lard tubs, for which I have never been charged over 10c each. These I wash out well and bore a ⅜-inch hole at the side at as near the bottom as possible and for which I make a wooden plug. With 800 hens, start with 10 to 12 quarts of oats in the first tub. Cover this well with lukewarm water and let it soak 4 to 5 hours. After soaking 4 to 5 hours, draw out the plug and let the surplus drain away. On the second day dump the oats into another tub, soaking up another tub of the same amount. Follow this up until the first oats have sprouted to about an inch or two inches long. If the room is kept at about 60 degrees, the oats will begin to grow together along about the fourth or fifth day and they must be pulled apart when changing them from one tub to the other. The trick is to keep them from getting too hot, but they must make enough heat to sprout.

Don't let the tubs get too full and about the fourth day you may have to divide a tub into two tubs. This method needs attention morning and night in dumping and wetting down with warm water in winter and cold water in summer. When you get ready to feed the oats, spread them out for a time on the floor so that they will dry out somewhat before being fed.

I have my tubs on a bench about 18 inches from the floor, with the bench slanting slightly. Be sure to keep the oats moist and pulled apart as they grow, and be careful to avoid too much heat. In a short time the person trying this method will not give it up for the best oats sprouter ever invented. It takes me about 10 to 15 minutes each night and morning to tend to this job.

Goshen, New York. O. L. S.

Bulletins of the Week

New Chick Feeding Facts, by E. B. Hart, H. Steenbock, J. G. Halpin, and O. N. Johnson. Bulletin 371, Wisconsin Experiment Station, Madison, Wis.

Prevention and Control of Poultry Diseases, by L. D. Bushnell and W. R. Hinshaw. Circular 106, Kansas Experiment Station, Manhattan, Kans.

Adjusting Agricultural Production and Distribution in South Central West Virginia to meet Home Market Demands, by W. W. Armentrout and H. I. Richards. Bulletin 188, West Virginia Experiment Station, Morgantown, W. Va.

Results of a Survey to Determine the cost of Producing Beef in California, by R. L. Adams. Circular 281, California Experiment Station, Berkeley, Calif.

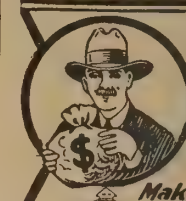
Winter Fattening of Steers, by B. E. Carmichael. Bulletin 37, University of Maryland Extension Service, College Park, Md.

Corn and Soy Beans by W. C. Etheridge and C. A. Helm. Bulletin 220, Missouri Experiment Station. Columbia, Missouri.



Do You Keep Cows or Do Cows Keep You?

Louis Larson, of Webster, S. D., now owning an Independent Silo writes and says: "It used to be we kept the cows. Now it is just the other way—the cows keep us, as they have increased 50 per cent in milk."



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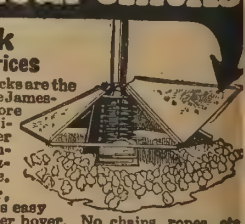
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VETERINARY

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Nymphomania

I have a rather valuable cow which does not t with calf and has not for a year now. ems to be in heat every two or three days. have examined her reproductive organs sev- al times and had the local veterinarian ex- ine her also. They seem to be perfectly rmal. I have conceived the idea that per- ps if I would remove one of her ovaries, could tell which one might be functioning normally, and she might then come around rmally and perhaps breed as she should. n you throw any light on this suggestion? Merced, Calif. E. W. D.

The ovaries are probably in a dis- sed condition. It would not be asible to remove one ovary, but re- oval of both may be necessary so at the cow may be fitted for the itcher. If you can employ an expe- enced graduate veterinarian he ould manipulate the ovaries by way the rectum to rupture cysts or dis- dge persistent "yellow bodies" hich sometimes cause the condition scribed. Tuberculosis of the aries is also a possible and incur- le cause. It would be well to have e tuberculin test applied.

Unlevel Hoofs

I have noticed many stanchion-kept cattle ve an undue restlessness about standing, metimes a very uneasy attitude. Also the of apparently grows too long, too lop-sided, d too uneven. The restlessness is particu- rly noticeable in the case of the abnormal of growth but in many cases this restless- ss is prevalent also when the hoof seems rmal shape. What is the cause of this con- ion? Give full directions for paring the of normal. Should this be done gradually remedied at one time? Should the two- tton toe growth above the hoof be pared so?
Clayton, N. J. C. L. H.

An overgrown and unlevel condi- on of the hoofs by causing discom- rt may induce the restlessness men- oned. A hard, concrete floor also uses discomfort and some stanch- ns fit poorly and add to the misery. he hoofs should be kept from be- ming overgrown and unlevel by oc- sional rasping, as required. When vergrowth has occurred it should be medied at once by rasping after aring or cutting with a special hoof hisel, saw, or clippers. The correct rm and size of hoof should be ob- ined at the first time of treatment. he dewclaws may be reduced in size that appears necessary.

Hidebound Cow

I have a cow which is very badly hide- und from her shoulders back. Can you tell e what to do for it as she has been this way er since last March. She is in good shape. am feeding her good clover hay, bran, oats, d oil meal.
Cornucopia, Wis. J. A. B.

The cow should be tested with tu- erculin, if that has not been done, as tberculosis often causes thriftless- ss or a hidebound condition. The sease is contagious and incurable. she is free from that disease, the de should soon become pliant if you ed generously with corn in addition the other feeds mentioned, and also pply roots or silage. We should al- advise you to groom and massage e skin daily and blanket the cow if e weather is cold.

Fail to Breed

I have two Chester White sows that fail come in heat. They are about seven nths old and in good shape.
Prairie Farm, Wis. O. K.

The gilts will be likely to come in eat if you give each of them twelve ops of fluid extract of damiana nce daily in a little slop or water. he farm practice is to feed charred ar corn as the chief part of the ra- on.

The Sensible Way to Get Big Milk Production

The REGULAR use of **KOW-KARE** *invigorates the Cow's Milk-making Organs—*





BUILD VIGOR

The dairy cow is a milk-making machine. The key to her producing capacity lies in a small set of digestive and milk-secreting organs. Keep these organs vigorous, and the cow will thrive on natural foods. She will milk to capacity, and resist profit-destroying diseases.

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Kow-Kare is a scientific medicine-tonic. It acts directly on the digestive and milk-making organs—not with a temporary stimulating effect, but with a permanent building-up of natural vigor.

During the winter months the strain of digesting quantities of dry, rough feeds puts a severe burden upon the assimilation and milk-making functions. If the milk flow is to keep up, some medicinal assistance is needed. *Kow-Kare* is the time-tested aid—proven by over a quarter-century of success.

More Milk Assured

To maintain the summer scale of milk yield during the long winter months only a very moderate use of *Kow-Kare* is necessary—if used *regularly*. Most dairymen use a tablespoonful in the feed twice a day one week in each month. Give this plan a fair trial, and you will be surprised at the added milk-yield.

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It is cheaper to prevent than to cure disease. The action of *Kow-Kare* not only improves the milk production, but its invigorating effect enables the digestive and genital functions to resist the cow ailments that attack these organs when they become "run down."

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At this period *Kow-Kare* is indispensable Used twice a day for two or three weeks before and after, *Kow-Kare* will aid the cow to produce a healthy calf and come through without danger of the ailments so often following calving.

How to Treat Common Cow Ailments

For your emergency guidance, keep these directions on hand:

ABORTION—Tablespoonful of *Kow-Kare* three times a day. First dose as a drench, following doses in grain. Continue the treatment for two weeks.

BARRENNESS — Examine womb to see whether passage is entirely clear. A tablespoonful of *Kow-Kare* twice a day in grain. Pursue this treatment for two weeks before service, also after. Breed her just as she is passing out of heat and with full udder.

LOST APPETITE—Tablespoonful of *Kow-Kare* three times a day with feed.

MILK FEVER—Four tablespoonfuls of *Kow-Kare* in a drench every two hours until relieved. Apply mustard and vinegar to spinal column. Use oxygen treatment if possible. After cow has been relieved give her a tablespoonful of *Kow-Kare* twice a day mixed with the feed.

GARGET—Give a heaping tablespoonful of *Kow-Kare* every morning in the feed. One tablespoonful of Grange Garget Remedy at night.

RETAINED AFTERBIRTH—Give her two tablespoonfuls of *Kow-Kare* morning, noon and night in a drench until afterbirth comes away. Then give her a tablespoonful of *Kow-Kare* in feed morning and night for three weeks.

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Finding Wealth on a Dairy Farm

(Continued from page 757)

concrete. This fact alone was significant, indicating that Mr. Dreger believes in being tidy, and didn't care to have his cattle wallowing belly-deep in mud during certain seasons of the year. There was something about this yard which struck us forcefully, however. That was the way in which it was built. Many farmers put up the argument that such a yard is too expensive and requires too much time and labor in building. Mr. Dreger felt somewhat the same way about it but overcame these objections in this way. He spread the building operations over a period of three or four years. Thus he built a small addition each year "so it does not make so much of a chore out of it". He could work at it as time allowed, and he spread the cost. It occurred to us, "Why couldn't many farmers do the same thing with profit?"

There's another thing in the yard that you don't see so many of—a shed to provide shelter for the cows in stormy weather, keep them dry, and still allow them to get fresh air, a change of atmosphere, and a little exercise. Mr. Dreger believes it pays. "If I didn't think it would pay, I wouldn't have built it," is the way he states it. While it may not be a profitable investment for every dairy farmer it's an idea worth mentioning.

Two Pastures For Cows

Our second visit to the Dreger farm was made the following morning. We walked out to see the cows in the pasture and discovered another significant fact. Emil had two pastures for his cows. Really a capital idea. Before one pasture gets too short the other is ready for use. In this way the pastures alternate each other and both are kept in the best of condition. Can you guess what kind of pastures they were? How many farmers pasture alfalfa? Mr. Dreger does—ten acres of it last summer. The other pasture was sweet clover—twelve acres. The alfalfa had been used for hay the previous year; some bluegrass had grown up so it became pasture this year.

"How do you avoid trouble with bloat?" we asked the proprietor.

"I think bloat is generally caused by carelessness, don't you? We fill the cows well up before turning out to pasture in the spring. They get dry feed in the barn before going out—such as hay."

In the sweet clover pasture we noticed a straw pile that had been fenced off. When first turned on, however, the cows were given free access to the straw. Nineteen twenty-four was an especial good summer for pasture crops so Mr. Dreger did not feed any silage while his cows were on pasture.

Good State of Fertility

Corn, oats, alfalfa, and clover are the chief crops. The rotation used consists of two years corn, one year small grain seeded to clover or alfalfa, and two years legumes. Although the land had been yielding good crops, Mr. Dreger thought it would be a good thing to have his soil analyzed and see what plant foods were lacking, if any. So he called upon the service of the Soil Survey at the Wisconsin College of Agriculture. Here is what C. J. Chapman of the Soil Survey said in his report:

"I wish to state that the farm of Emil Dreger has been kept in the best state of fertility of any farm I have examined in this part of the country. He has a type of soil which will run down in a hurry unless it is managed properly. It is soil which is naturally deficient in organic matter and nitrogen, and was never very well supplied with phosphorus. I have been on many farms in this locality where the nitrogen and phosphorus content drops exceedingly low, nitrogen averaging 1500 to 1800 lbs. to the acre, phosphorus running from 460 to 600 lbs. to the acre.

Follows Approved Practices

"The rotation of crops, the growing of clover and alfalfa, the turning under of second crops of these legumes, the return to the land of all the barnyard manure produced on the farm, the use of liberal amounts of bedding in order to absorb the liquid manure are practices which have undoubtedly been responsible for the present high state of fertility of the different fields on this farm. I hesitate about making recommendations for commercial fertilizers on your farm."

Such is the statement of a soils chemist and expert. It surely is a tribute to the good farming practices of Mr. Dreger. Mr. Chapman, however, did recommend a light application of acid phosphates to certain portions of the farm. In the above statement are summed up several methods of maintaining fertility. Are you practicing these too?

Women Folks Share Success

The story would not be complete without at least making mention of the other two members of the family that really helped Emil with his achievements—his mother and his sister, Ella. Two hard-working, happy women are these. They must receive credit, too. At the cow testing association picnic last summer Ella participated in a farmers' judging contest and was one of the three highest in the final score.

We might add that Mr. Dreger thinks that a dairy farmer should have a little vacation every year. It's possible, he declares. He accomplishes this by having his cows freshen in the fall. His rest from milking comes when the cows are dry. "It doesn't make so much difference if you miss a milking or two on a Sunday if your cows are drying up," says Emil.

Only Cuts Alfalfa Twice

Here's just a tip on growing alfalfa that may interest you. Emil Dreger makes only two cuttings of alfalfa during the season. "We get about as much from two cuttings as we do from three, and it winters much better. I first noticed this several years ago. We had a field of alfalfa and started to cut it the third time. We got a few rounds done, then silo filling and threshing came along. It got so late we just let the rest of it go. The next year we noticed a big difference between that cut just twice and that cut three times. Ever since that time we've only cut it twice," says Mr. Dreger.

Probably you will be a little surprised to learn that Mr. Dreger keeps a hired man on his 80-acre farm. The following explanation is characteristic of this sharp witted dairyman and will be satisfactory no doubt. "Our land is so rolling that we have to farm it on three sides and that really makes 240 acres."

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Kinderhook, N. Y.

Cedar Crest Farms

For Sale -- TWO REAL BULLS, Raleigh breeding. Ready for light service. Also a few BABY BULLS. Full particulars and pedigrees on request.
J. K. DERING, Owner Lake Villa, Illinois

"Just Jerseys"

Breeding and Show Stock for sale. Oxford Sultan of Oaklands, herd sire. Winner Bull and Progeny Prize, Island of Jersey 1920.
The Oaklands, R. 5, Ann Arbor, Mich.

Michigan Jersey Cattle Club

Pure-bred or grade cattle for sale. Can quote prices on individuals or carloads. R. of M. and Cow Testing Association records.
H. E. Dennison, Field Man, East Lansing, Mich

6 JERSEY BULLS

2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS

Young Bull of Serviceable Age

and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS

Valley Farm

is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sible Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free
CHAS. S. HATFIELD, Secy., R4, Box 5, Springfield, O

If Your Child is Tired of His Christmas Presents, Give Him a JERSEY CALF

--- He will remember it and its progeny for years!

AMERICAN JERSEY CATTLE CLUB
Dept. B, 324 W. 23d St., New York

The Son of a Silver Medal Bull For Sale

SNOWFLAKE'S TORMENTOR 234788, born Feb. 24, 1924

A fine fellow, tracing to Gold Medal Bull, Sophie 19th's Tormentor, on both sides. Photos, pedigrees and description on request.

Herd Federal Accredited SHERMAN JERSEY FARM, Dept. B, Charles City, Iowa

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

From Scrubs to Milk Producers

(Continued from page 759)

were determined on the basis of including both lactation and dry periods.

The pure-bred sires used in this experiment were, with one exception, the herd bulls used at the College dairy farm. None of the sires were purchased at high prices although they were well bred for type and yearly production. Young bulls of equal breeding are available at prices sufficiently reasonable that the man who milks cannot afford to use a scrub bull, however cheaply he may be purchased.

The accompanying table gives comparative production of two generations of grades and their scrub ancestors together with an average for all breeds:

Table Showing Production of Dams, Daughters, and Granddaughters in the Iowa Breeding Experiment

Scrubs	Guernsey	Holstein	Jersey	All breeds
No. cows	5	3	3	11
No. lactations	27	16	20	36
Yearly milk, lbs.	4480	3630	4047	4110
Yearly fat, lbs.	202	175	194	191
DAUGHTERS				
No. cows	6	3	3	12
No. lactations	18	15	9	42
Yearly milk, lbs.	5129	6698	4934	5828
Yearly fat, lbs.	253	278	266	266
Increase over dams				
Milk	14%	85%	22%	42%
Fat	25%	29%	37%	39%
GRANDDAUGHTERS				
No. cows	10	7	3	20
No. lactations	20	16	9	45
Yearly milk, lbs.	7144	10290	6648	8163
Yearly fat, lbs.	361	398	343	370
Increase milk over grandams	59%	183%	64%	99%
Fat	79%	127%	77%	94%

He that hath no rule over his own spirits is like a city that is broken down, and without walls.—Psalms 25:28.

SWINE

FOR SALE — BY MAIL

HAMPSHIRE BOARS, PIGS GILTS

Write for FREE Price List.



WICKFIELD FARMS, F. F. Silver, Prop., Box 10, CANTRIL, IA.

GUERNSEYS

Thorn Hill Farm Guernseys



Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to

AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS

SERVICEABLE BULLS with best of breeding for sale. Write

ERNEST W. SASS, Hoopeston, Ill.

Hillswold Farm Guernseys

W. A. CLOUES, Mgr., Shrewsbury, Mass.

— Registered —

Guernsey Bulls

5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.

RALPH TRATT, Whitewater, Wis.

Waukesha County GUERNSEYS

Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.

F. E. FOX, Secretary, Waukesha, Wis.

FOREMOST GUERNSEYS

2 Bulls of Serviceable Age

Bull calves four months to one year of age. These bulls are bred at the TOP for PRODUCTION, TYPE and REPRODUCTION. You can bank on Emmadine Foremost Guernseys.

EMMADINE FARM
Hopewell Junction, N. Y.

J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

N. B. We have two exceptional bargains in bulls one year old for grade herds. Ask for price on bulls Nos. 167 and 169.

Hillbrook Farm Guernseys

E. S. BURKE, Jr., Owner

Herd Sire—LANGWATER HORATIUS, son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested. At 1924 Ohio State Fair we had Jr. champion female and Sr. and grand champion female. At the next show we won 8 out of 9 firsts, 3 championships and 1 grand championship.

For prices and information, write

WM. P. SMEDLEY, Mgr., CHAGRIN FALLS, O.

BULLS 6 to 10 Mos. Old

From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.

A Federal Accredited Herd

Guernsey Bulls, Calves and Yearlings

May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.

RICHARD F. KLEMM, Baraboo, Wisconsin.

Island Farm Guernseys

Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.

ISLAND FARM, Box A, Floodwood, Minn.

Border Raider GUERNSEYS

Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.

Accredited herd No. 50474.

WADDINGTON FARM, Wheeling, W. Va.

GUERNSEY BULLS

We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.

Send for new list.

E. S. PERSON, Minot, N. D.

BULL — From A. R. Dam

Born March 8, '24. His sire of Langwater breeding, his dam, Queen Janessiere's Sequel, now on test and will finish with about 600 lbs. fat. Price $200. Accredited herd.

RUSSELLHURST FARM Willoughby, Ohio.

HELENDALE GUERNSEYS

FOR SALE: Several good typy registered females at very moderate prices, also some young bulls.

WM. A. ERBACH, Athens, Wisconsin

Grade Guernseys For Sale

CARLOAD LOTS OF FRESH, YOUNG GUERNSEY COWS AND SPRINGERS of the best type and breeding. T. B. tested. Also heifers of all ages. We are offering you a choice of 200 head right now. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself. Every animal sold, guaranteed to be as represented.

Riverview Farm, Lloyd L. Dewey, Mukwonago, Wis.
(In Waukesha County)

Serviceable Guernsey Bulls

We have 35 serviceable bulls for sale here now at very reasonable prices. We are also offering several carload of good grade cows and heifers and can supply pure-bred females in carload lots.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec., Fort Atkinson, Wis.

CORIUM FARM GUERNSEYS

FOND DU LAC, WISCONSIN

WE OFFER the show bull, CORIUM SNOWDROP'S ERIC, born Oct. 17, 1923, who won the following prizes: First at Grand Forks, No. Dakota; Central States Fair, Aurora, Ill.; Tri-States Fair, Burlington, Iowa; Wisconsin State Fair; Michigan State Fair; New York State Fair; Illinois State Fair. First prize calf herd and first prize produce of dam, Wisconsin State Fair. Write for price list of bulls we have to offer.

50 GRADE HEIFERS—Priced to Sell!

REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.

We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.

LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

REGISTERED GUERNSEYS FOR SALE

MY JUNIOR HERD BULL, sired by Glenwood's Champion, five years old, $200.

Also TWO-YEAR-OLD BULL, Beauty Eagle breeding, A. R. dam, $150. Warranted breeders; both these exceptional value, worth double.

Superintendent, LA BELLE KNOLL FARM
Oconomowoc Wisconsin

Grandson of Cherub's Prince

Serviceable — Priced to Sell

PROUD PETER OF CHIPPEWA, born Oct. 10, '23, is a good individual. His sire, a son of the great Cherub's Prince, was a winner at the 1922 Dairy Show. His dam is a heavy producing Glenwood cow. This bull is offered at a bargain price. Write today.

L. P. MARTINY Chippewa Falls, Wis.

Homestead Farm Guernseys

FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to

JAMISON BROS., R. 2, Appleton, Wis.

100 Head of Guernsey Milk Cows

FOR SALE at all times. Tuberculin tested and ready for interstate shipment. Address

O. G. CLARK & CO., WEST SALEM, WIS.



May Rose of Westbrook Farm

EXCEPTIONAL BULL FOR SALE — From Former World's Record Cow

We are offering a son of May Rose of Westbrook Farm for sale. She is third in Class BB with 757 lbs. fat (world's record when made) and her daughter, Westbrook Ultra Rose, was a former class leader in GG. His sire, Langwater Stargazer, is one of the best sons of Langwater Steadfast. This calf, born April 11, '24, is large, well marked and well grown, with a clear nose. He is a wonderful herd sire prospect. Price $1000.

Write today for pedigree, etc.

FLORHAM FARM, R. H. Allen, Manager, MADISON, N. J.

2 SONS OF LADYSMITH CHERUB

The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.

That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.

BUY LADYSMITH CHERUB BLOOD.

SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

Grandson of Langwater Holliston

PRICE $250.00

If You Are Looking for an Individual Worthy of the Show Ring, Possessing Real Breeding, Buy This Bull. He Will Make Money For You!

His dam, May Belle of Rockingham, is a half sister to Rockingham Maid who was sold for $6,800 and has a record of 820 lbs. of fat. May Belle will make over 500 lbs. fat in FF. The sire of this calf is Langwater Model A. R., our junior herd sire. He is royally bred, being by Langwater Advocate and out of Langwater Pauline, a daughter of Imp. King of the May. The calf we are offering for sale was born April 9, 1924.

DANIEL G. TENNEY, 15 Fourth Street - - NEW YORK CITY

HAYES' CHERUB II and GERAR PEARL

We are line breeding these two great individuals by using our herd sire, Cherub's Dart (out of Pearl's Dot), on our recent purchases at Mr. Stout's and Mr. Marsh's sales.

CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

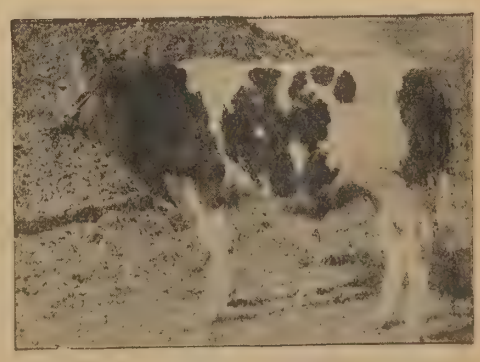
MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.

MARSH FARM - - - Waterloo, Iowa

For You to Consider

This bull calf was born March 21, 1924. His sire is ANTON'S KING CONFIDENCE and his dam is a mighty good cow with an A. R. record. This calf is priced to sell right away. Send for more complete description of him.



ANTON'S LEADER OF PROSPECT—101859

Hoard's Dairyman Farm, Fort Atkinson, Wis.

The Humble Origin of a Dairy Breed

(Continued from page 761)

evenly distributed. She was born in Providence, Rhode Island, but was owned by a Mr. Watson of West Farms, New York. In 7 days this cow gave 463¾ pounds of milk, which is reported to have made 19 pounds, 7 ounces of butter. For the same year she is said to have produced 9,216 pounds of milk.

Another noteworthy milk record was made by a member of the breed about 1887. In an official test for a year the cow Ruth No. 4816 made 10,219½ pounds of milk in 365 days. This test was conducted by a committee appointed by the association, who visited the stable at irregular times, saw the cow milked and compared the weight of the quantity of milk given with the records kept by the owner. This cow was bred and owned by C. M. Winslow, Brandon, Vermont. A little later a test was made of the cow Rena Myrtle No. 9530 which was also bred by Mr. Winslow but later sold to the Vermont Experiment Station, where she made an official record of 12,172 pounds of milk and 468 pounds of fat in a year. She was sired by a son of the Dutchess of Smithfield. Rena Myrtle is described as being a large, strong, hearty cow which readily adapted herself to the work assigned to her at the experiment station; namely, trying out various kinds of feed to determine their effect on her production of milk. Thus a member of the Ayrshire breed early made a contribution to scientific feeding practice.

Bull Clubs Organized

Three Jersey bulls are already in service in Ripley County, Missouri, as a result of the campaign conducted by the Dairy Development Department of the Sugar Creek Creamery Company and the Chamber of Commerce of Doniphan, Missouri. A number of dairy meetings were held throughout the county by C. S. Love of the Sugar Creek Creamery Company and H. A. Tanner, president of the Chamber of Commerce of Doniphan. At these meetings, more profitable dairying was stressed by the use of good sires of known breeding and proper feed and care. Since the arrival of the first bulls, two other bull clubs have been organized. Forty-four different farmers have signed up to breed one or more cows in one club, to one of these good sires.

Haecker Historical Association

Under the leadership of Walter J. Venske, former president of the Dairy Club of the University of Minnesota, plans are now under way for the organization of a Haecker Historical Association, in honor of Professor T. L. Haecker of the University of Minnesota. It will be the purpose of the proposed association to preserve the early records of dairying in the state, and to bring the different dairy organizations of the state closer together. The officers of the club are assisting in the formulation of plans. It is hoped to hold the organization meeting in conjunction with the annual Dairy Club banquet sometime in March.



Bargains in Blue Ribbon White Collies

Write for special lists of famous Shomont White Collies. We are world's largest breeders. Our White Collies will bring beauty, watchfulness and devotion into your home—joy to your children, safety to your herds. Gentle, intelligent. Write for low offers.

SHOMONT KENNELS
Box 117 Monticello, Iowa

"Tell Me About the Markings of Your Best Bull Calf? His Dam?"

Have you ever been asked a question similar to this? Did you answer it satisfactorily? One of our **VEST POCKET HERD BOOKS** will help you complete unexpected sales.

PRICE $2.00
Postpaid

HOARD'S DAIRYMAN
Fort Atkinson Wisconsin

BROWN SWISS

WALHALLA FARMS
BROWN SWISS HERD
R. R. STATION, BRIER HILL, N. Y.

An infusion of Walhalla blood has proven most advantageous in many herds in this country, Canada, Africa, South America, West Indies and Mexico. Let your next bull carry 100% Walhalla blood. Address J. FRANK ZOLLER, Schenectady, N. Y. Care General Electric Co.
Federal Accredited Herd

LEES' HILL FARM
Brown Swiss Herd
MORRISTOWN, N. J.

An infusion of Lee's Hill blood has proven most advantageous in many herds in this country. Buy your bull from a herd in which the germ of improvement is active. Herd accredited.

HOLSTEINS

$150 Buys Him

Born March 15, 1924. Splendid individual, dark in color. Dam: 698 lbs. butter, 16,850 lbs. milk in 365 days at 2½ years. Dam's dam: 722 lbs. butter, 17,832 lbs. milk in 365 days at 11½ years. For further information write.

KEWAYDIN FARMS
J. A. Schmidt & Sons, Owners, Ladysmith, Wis.
Federal Accredited Herd

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y, Randolph, Wisconsin

Registered Holstein Females
8 CHOICE HEIFERS, 3 to 18 months old. By 33-lb. sire. Some from A. R. O. dams. Korndyke and Ormsby breeding. Bargain prices. Clean, healthy, foundation stock.
W. F. MIELENZ, 425 E. Water, MILWAUKEE, WIS.

SHOW SON OF S. P. O. M. 41
HERD SIRE FOR SALE OR EXCHANGE—to avoid in-breeding. Born Dec. 1918. Exceptional individual. If interested come and see him and his daughters or write for pedigree and price.
P. J. NELSON & IVER HANSON, Clarissa, Minn.

High Testing Show Bulls
ALL AGES

Get the most popular breeding. They are bred for great butter production and for show type. They are the highest testing family of the breed. In no other herd can you get all these features in one animal. Tell us what you want.
HARGROVE & ARNOLD Norwalk, Iowa

Buy Empire State Holsteins
At the

New York State Sale
SYRACUSE, NEW YORK
At State Fair Grounds Coliseum **JAN. 14-15** *At State Fair Grounds Coliseum*

Over 30 of the leading Holstein Breeders from all sections of New York State are consigning DESIRABLE HOLSTEINS to this sale in an effort to make this a worthy successor to the great New York State Sales that have gone before.

Every herd consigning is under Federal Supervision, nearly half of them are FULLY ACCREDITED, and many more have passed one or more clean tests. You have the further protection of the 60-day Retest Guaranty.

Cows with records up to 33 lbs. in seven days; also the World's Champion yearling with over 23,000 lbs. milk; daughters of New York State's most famous sires; bulls from large record dams, one 36 lbs., one 35 lbs., one 34 lbs. and others nearly as good.

The State Association stands squarely back of these good, responsible breeders, who are consigning some of their very best Holsteins.

For Catalog and Full Particulars, Address

New York Holstein-Friesian Ass'n
C. F. BIGLER, Pres. and Sec'y, 224 Wieting Block, SYRACUSE, N. Y.

OUR HERD SIRE
Toyon Galaxy Model Segis
is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Ollie-Ormsby

BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.
WALCOWIS FARMS Lake Geneva, Wis.

BARGAINS In Purebred Tuberculin Tested Holsteins Sold Subject to a 60 Day Retest

35 REGISTERED COWS due to calve this fall. All bred to a 30-lb. Ormsby bull, $168 per head. 18 Registered Yearling Heifers, sired by 30-lb. bull, $75 per head. 28 REGISTERED HEIFER CALVES, sired by a 30 or 1,000-lb. Ormsby bull nicely marked and out of real producing dams, $65 per head. Wire or come at once. Buy before prices advance.
WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

When You Want Holsteins!
Come to Jefferson Co. 1000 herds to select from. Our secretary, an experienced Holstein man, will assist you free of charge. Write
JEFFERSON CO. HOLSTEIN ASS'N, T. W. Anthes, Sec., Jefferson, Wis.

REGISTERED HOLSTEINS
GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE
Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.
Our herd sires are:
AMBASSADOR FOBES 337162
PRIDE OF SIR PIETS 346087

MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

HEALTHY HOLSTEINS
If you want either purebreds or grades from federal tested herds and sold on a retest guarantee write us. Prices are very reasonable.
ROCK COUNTY HOLSTEIN BREEDERS' ASS'N.
John W. Jones, Sec. MILTON JCT., WIS.

BUY YOUR HOLSTEINS
where you can get good, clean cattle at fair prices—where an experienced, reliable man will give you every assistance free of charge. Grade or pure-breds in any number you wish. JEFFERSON COUNTY HOLSTEIN SALE ASS'N., A. F. Gafke, Sec., Jefferson, Wis.

Is Hoard's Dairyman a real help to you? Why not tell your neighbor about it? The good things we share with others are the things we most enjoy. Get up a little club of subscribers—now—and send them in.



MEADOW HOLM ONA HARTOG KING
Sire of 2 A. R. O. daughters. He has some promising young daughters in our herd, several of them winners at the "Cattle Congress" this year.

Iowana Farms' Senior Herd Sire

MAPLECREST PONTIAC HARTOG 62178.
38 A. R. O. daughters.
One 940-lb. Jr. 2-year-old; one 900-lb. Jr. 3-year-old; two 800-lb. Sr. 3-year-olds.

ONA CLOTHILDE DE KOL 70349.
Milk 672.80 lbs. in 7 days.
Butter, 26.45 lbs. in 7 days.
Milk, 25019.30 lbs. in 365 days.
Butter, 1100.61 lbs. in 365 days.
Four A. R. O. daughters.

PONTIAC AAGGIE KORNDYKE 38291, 68 A. R. O. daughters, 5 with over 1100 lbs. in a year.

BURTON HIGHLAWN 2d's HARTOG 70231.
Milk, 577.5 lbs. in 7 days.
Butter, 30.14 lbs. in 7 days.
Five A. R. O. daughters.

CHESTERLAND MUTUAL PAUL DE KOL 28679, 7 A. R. O. daughters.

ONA CLOTHILDE 57534, Two A. R. O. daughters.

PONTIAC KORNDYKE 25982, 153 A. R. O. daut.
PONTIAC AAGGIE 53439, Milk 423 butter 20.65 7 da.

CLARION VELTHIUS 31072, 5 A. R. O. daughters.

BURTON HIGHLAWN 2D, 63235, 12 yr. 10 mos. 5 da. milk 446.10 but. 20.58 7 d.

DE KOL 2d's MUTUAL Paul 25700, 50 A. R. O. daut's.

KOOKEE 18290, 1 A. R. O. daughter.

JESSE JAMES DE DIKKERT 26151 1 A. R. O. d.
ONA BERYL 50040.

He is being bred to daughters and granddaughters of Sir Johanna Fayne and of Oak De Kol Ollie Homestead. We have a few of his good sons for sale.

IOWANA FARMS Davenport, Iowa

SHOW TYPE and PRODUCTION

Young Bulls For Sale



Grahamholm Colantha Segis Maid
She twice produced over 33,000 lbs. milk and over 1,200 lbs. butter in a year.

Sired by a son of Grahamholm Colantha Segis Maid, our world record daughter of Dutchland Creamelle Colantha Lad. We also have some very good sons of Dutchland Creamelle Colantha Lad. These bulls are from 7-day and year record dams. They are priced very reasonably.
"Dutch" himself, as well as several of his daughters, have been prize winners at the National.
Write today for booklet containing bull sale list and history of the Grahamholm herd.
Watch the Colanthas, particularly Dutchland Creamelle Colantha Lad

GRAHAMHOLM FARM
D. G. TWENTYMAN, Mgr., Rochester, Minn.

A Yearly Record, Serviceable, Ormsby Bull

Born July 30, 1923. A good individual, mostly white in color. A grandson of Sir Pietertje Ormsby Mercedes. His two nearest dams average 995 lbs. butter, 23,000 lbs. milk in 365 days. The price is $175 F. O. B. Northfield.

CARLETON COLLEGE FARMS, Northfield, Minnesota
FEDERAL ACCREDITED HERD

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*

ire, Sir Walker Segis Homestead, a proven show bull, (32 R. O. daughters), a son of "PIEBE" from a 1230-lb. former orld's record daughter of "COUNT".
am, Hengerveld Oak Marie, a senior four-year-old who made 5,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of linn. State Champion junior two-year-old milk producer.
Calf, nicely marked, good individual, a real buy. Send for pedi-ree and photo.



Sir Walker Segis Homestead

J. LASHBROOK - - - Northfield, Minnesota

Grade Holsteins

19 Heifers For Sale

eing over stocked we offer as a whole, one amily of 19 daughters ranging in age from 7 nonths to 2 years. Sired by a 30-lb. bull whose am was former Kansas state champion. They re priced to sell for the above reason.

RED HARVEY DAIRY FARMS, Newton, Kas.

Foundation Holsteins

Selected With Care

Ask for prices and particulars on sons and daughter of our Two—1st prize bulls at the Northwest Dairy Exposition and the Minnesota State Fair. You will be surprised to learn how reasonable we sell these choice animals. Accredited herd.

ONAL HOLSTEIN STOCK FARM
Alexandria Minnesota

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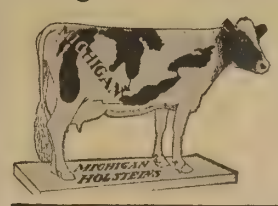
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SERRADELLA FARMS, Albert E. Jenkins, Mgr.,
A Clean Herd OSCODA, MICH.

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One out of a 29-lb., 1,108-lb. four-year-old daughter of King Hengerveld Model Fayne, a 30-lb. grandson of King Segis. One out of a 31-lb., 1,185-lb. daughter of Fairview Pontiac Beets Korndyke. Both of these are sired by a 38-lb. son of Judge Segis.

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A Son of Traverse Echo Sylvia Kaastra

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Dam: Reformatory Century No. 534192 at 5 yrs:
Butter 7 days 26.13 Milk 561.0
Butter 365 days 863.39 Milk 20,785.7
She carries 3 crosses of Pontiac Korndyke.

A handsome calf with straight top and level rump, soon ready for service.

Send for pedigree of No. 372 and list of bulls for sale by

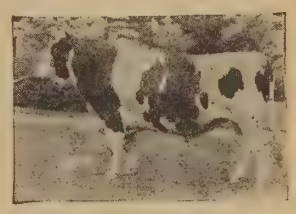
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REGISTERED HOLSTEIN CATTLE

MICHIGAN STATE HERDS
BUREAU OF ANIMAL INDUSTRY,
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THE ONLY LIVING CENTURY SIRE



Senior Sire at the head of our herd of 200 Registered Holsteins

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Bulls For Sale of World's Champion Breeding

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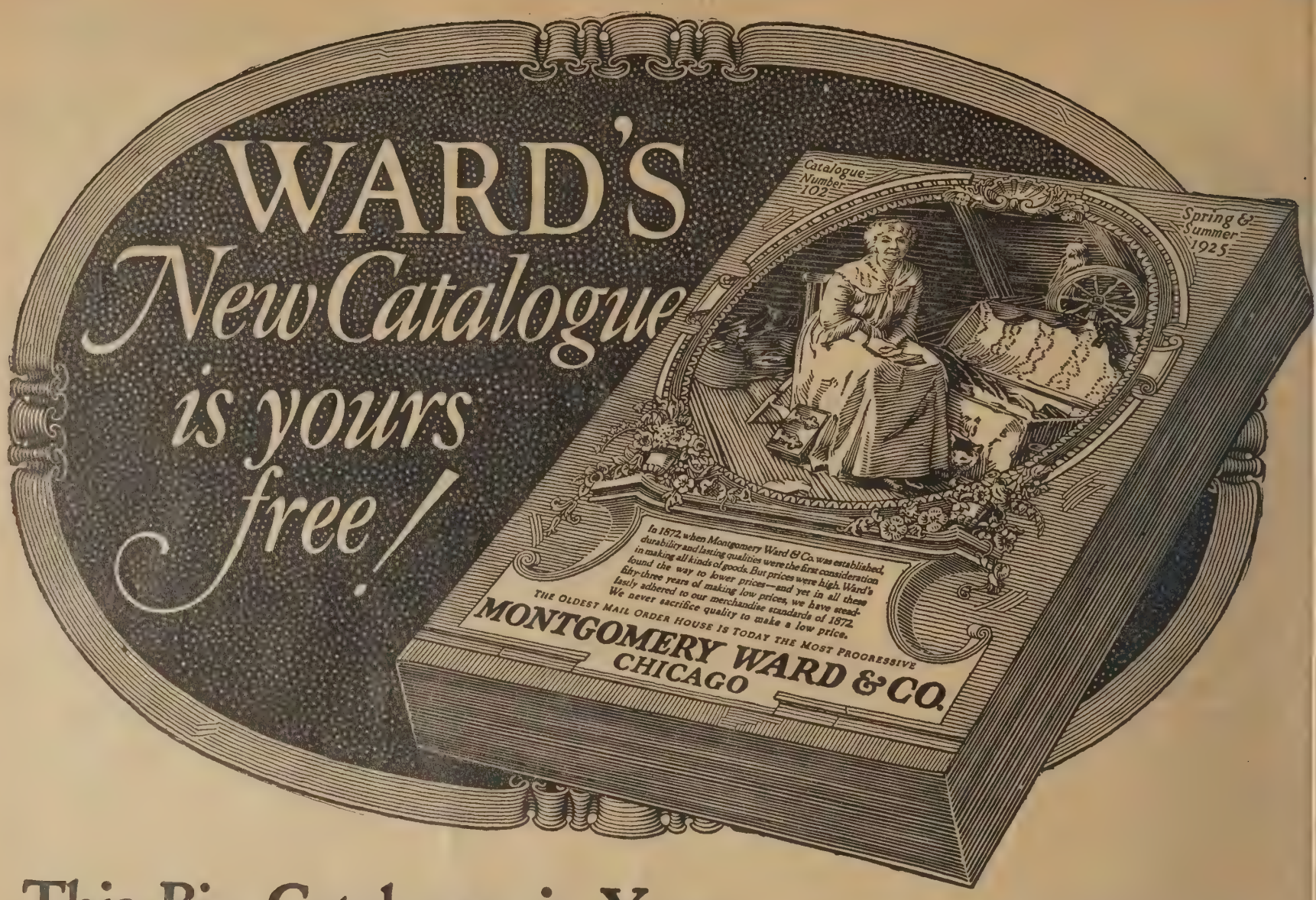
Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD



Send for List

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HOARD'S DAIRYMAN

A WEEKLY JOURN[illegible] TO DAIRY FARMING



Volume LXVIII, No. 26 Fort Atkinson, Wisconsin January 9, 1925

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Entered at Fort Atkinson, Wis., as second class matter.

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Volume LXVIII FORT ATKINSON, WIS., JANUARY 9, 1925 Number 26

PROTEIN REQUIREMENT OF DAIRY COWS

Are Old Standards Efficient?

E. B. HART, Wisconsin College of Agriculture

THAT the protein requirement of dairy cows is still an unsettled question is shown by the fact that the results of comparatively recent investigations in the field of animal nutrition do not agree with the work of the earlier investigators. In fact, for some time it has been recognized that several of the earlier feeding standards prescribed more protein for dairy cows than they could profitably make use of. Just how much reduction in protein can be made and still enable cows to maintain good health, normal weight, and the most economical milk flow is now a very important question to be answered by investigators in the field of animal nutrition.

That the work of all of these earlier scientists has been a stepping stone to a more intelligent understanding of the problems of animal nutrition cannot be denied. If the later work in this field of investigation indicates that the earlier men solved only part of the problem and that it is necessary to either discard or adjust old standards if we are to feed dairy cows efficiently, it seems to me that we must take the new step.

While it is true that there are thousands of dairy cows being fed too little protein, on the other hand it is likewise true that there are many herds of cows that are being fed more protein than they can use to the very best advantage, including a consideration of the farmers' pocketbooks. Dairy farmers should be able to know when they are feeding too much protein as well as when they are feeding too little. It is easier perhaps for them to tell when they are supplying their cows with too low a protein intake than it is for them to know when they are feeding too much, but the latter is no less important.

Should Use Improved Method of Investigation

Comparatively recent investigations in the field of chemistry of digestion and animal nutrition have resulted in an improved knowledge concerning the problem. Curiously enough the results of these investigations have pointed out the errors in the methods used by the older men. The feeding standards that have been shown to be only very approximately correct were too largely, perhaps, of statistical origin.

In determining the protein requirements of dairy cattle two methods have been used. In the first method a considerable number of animals have been fed either low, medium, or high levels of protein over long periods of time with observations on the live weight, milk yields, and milk composition in a few cases, and mass observations on the health and body status of the animals.

The second type of experiment to determine the protein requirement of milch cows is the one known as a metabolism experiment involving the accurate measuring of the protein intake and outgo. If the outgo of protein in milk, urine, and feces is greater than that found in the food supply, it becomes clear that the protein intake is not high enough. This type of experiment is absolute. It involves the use of some animal husbandry sense and some chemistry; it is laborious routine, and consequently little used but it is the type of experiment that should be used to settle the question of possible variations in the efficiency of proteins for milk production as well as the capacity of certain protein mixtures to furnish ample protein to dairy cows.

If the roughage is a poor hay or silage, what grain mixture and protein concentrate will furnish ample protein for 40 lbs. of 3.5 per cent milk? If the roughage is clover hay and corn silage, what protein concentrate is now needed for similar production? If the dairyman has alfalfa hay and corn silage, what must he use in the way of grain and protein concentrates to meet his needs? These are the questions asked by every dairyman and the answer can be given him by definite and known methods of experimentation. The questions involved are of such importance that the experimentation necessary should be undertaken.

Difference in Protein Quality

In view of the fact that the modern chemist has been able to show that equal amounts of protein from different sources may not give the same efficiency when fed to cows and this, coupled with the fact that none of the older feeding standards recognized any difference in quality of proteins, indicates a necessity for more investigation in this field. The improved knowledge gained through the later work in the chemical and nutritional field naturally would require improved methods of experimentation. The metabolism experiment would answer some of the questions involved.

Up to the beginning of this century all proteins were considered of equal value, but we have now learned that the individual members of this important class of food substances differ among themselves in nutritive value. A pound of protein from corn meal or wheat grain is not equal to a pound of protein from milk or meat in meeting growth needs. If the cereal grain proteins are used for the sole source of protein for the growing pig, they will show an efficiency of less than 30 per cent, while the proteins of milk will reach an efficiency of 65 per cent. However, when corn and milk are used together, the efficiency of the total protein intake reaches 60 to 65 per cent. Such facts as these are very significant and make it clear why milk in any form—whole, skimmed, buttermilk, or in manufactured products—becomes a superior article in the rations of growing animals or for human consumption.

But no dairyman should or will feed skimmilk powder or meat scraps to his milch cows. He must draw these proteins largely from plant sources. The question is: Does the quality of the proteins enter into the dairyman's problem when he supplements his cereal grains with oil meal or cottonseed meal or gluten feed, and in addition feeds mixed hay and silage? Recent investigations along this line indicate that the problem is worthy of further study and investigation.



"FEEDING LIME WHEN COWS ARE ON GREEN PASTURE AND IN SUNLIGHT ASSURES THE BUILDING OF A MINERAL RESERVE FOR THE WINTER THROUGH THE PROVISION OF AN AMPLE SUPPLY OF THE ANTIRACHITIC VITAMIN"

Results With Red Clover

Our experience with the "home grown" ration derived from clover hay, corn silage, and either corn, oats, or barley grain, or a mixture of the three, demonstrated to us that we were dealing with a protein mixture of comparatively low efficiency. It will suffice for cows of liberal consumption capacity and low mammary gland activity—poor cows—but for cows of large milk flow tendency, the consumptive capacity will be inadequate to furnish from such a ration sufficient protein for body and production upkeep.

In these experiments five animals were involved, two pure-bred Guernseys, two pure-bred Holsteins, and one grade Jersey. They were fairly liberal milkers, some of them producing 35 lbs. of milk daily while others produced about 22 lbs. of milk daily. The red clover we used was an average clover hay carrying about 11 per cent of crude protein. We aimed to feed each cow about 10 lbs. of the clover hay, 25 lbs. of corn silage, and one pound of grain for 3 lbs. of milk produced. In only one instance, that of a Jersey cow giving daily about 22 lbs. of 4.6 per cent milk, were we able to maintain the nitrogen or protein balance.

The clover hay—corn silage ration should be supplemented with a grain-concentrate mixture composed of 300 lbs. corn meal, 300 lbs. ground oats, 200 lbs. wheat bran, and 200 lbs. oil meal. The bran is added not

(Continued on page 820)

QUALITY BUILT BIG MILK BUSINESS

O. M. KILE, WASHINGTON, D. C.

FOURTEEN years ago Washington, D. C., had a number of milk distributing concerns each larger than the Chestnut Farms Dairy. At least two were twice as large. Today Chestnut Farms Dairy is a bigger factor in the milk business of Washington than any two of its competitors. Alongside this fact, set down the further fact that the name of Chestnut Farms Dairy leads the list month after month in the scoring system carried out by the Washington health department.

When George M. Oyster, Jr., founded the present business, the average score for Washington milk was around 60. The product left much to be desired. Not only was there little regulation of the milk supply but open hostility to the health authorities on the part of some milk dealers. Even pasteurization was fought.

Mr. Oyster adopted exactly the reverse policy. Instead of fighting the health department he not only co-operated with them fully but even went ahead of their requirements. He followed whole heartedly every regulation laid down by the board of health, the U. S. Department of Agriculture, and the Bureau of Chemistry. His idea was to produce and deliver to the consumer the best possible milk supply, paying the producer whatever was necessary in order to produce this quality product, observing every refinement in his own plant, and then asking the consumer to pay a price sufficient to cover these costs and a fair margin.

Early in this campaign Mr. Oyster saw the necessity of setting up a department in his business charged with the responsibility for inspecting and testing the milk supply every step of the way from producer to consumer. Mr. Ivan C. Weld was employed to take charge of this work and has been a leading factor in its prosecution ever since.

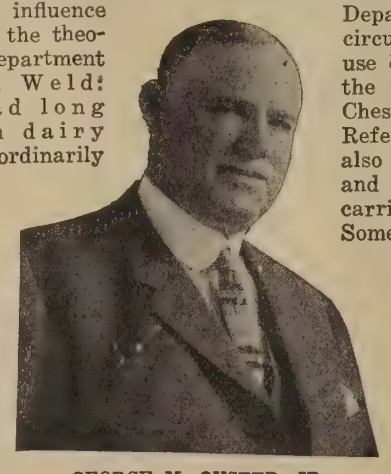
Wm. C. Woodward was in charge of the health work relating to milk in the District of Columbia at that time. It was Mr. Woodward who originated the dairy score card. This system has been a most important factor in securing for the district of Columbia a milk supply, the quality of which is far in advance of that previously delivered. Every dairy farm supplying this milk must have a separate dairy house furnished with modern equipment. Recently this has been made to include a steam sterilizer. Every cow must be kept clean and the hair clipped from the tail and udders at frequent intervals. In addition the milk must undergo the usual bacterial and fat tests.

Today the average grade for pasteurized milk runs well above 80. Chestnut Farms Dairy averages 97 or better. Their certified milk averages 99.5. The bacteria count runs but slightly over 5,000 for pasteurized milk and 2,300 to 2,500 for certified milk.

Every month the Health Department publishes a circular giving the results of their inspection and scoring of all dairies selling milk in the District of Columbia. This score is given not only for the current month but for the two preceding months so as to overcome temporary fluctuations. This circular is made available free of charge to all who desire it and many thousands of copies are placed in the hands of consumers each month. By this means all who are interested in finding out who produces good milk may do so.

This scoring system now works perfectly in the city of Washington and has been adopted in recent years by several other cities. When Mr. Woodward started the plan, however, it met with vigorous opposition. In fact, Mr. Woodward was having a rather sorry time of it trying to make his plan work at the time Mr. Oyster and his organization took up the fight. Naturally Mr. Woodward welcomed this co-operation from the industry. Without Mr. Oyster's support it is doubtful whether the scoring plan could have succeeded. Before leaving Washington to take up new work in Boston a few years ago, Mr. Woodward called on Mr. Oyster and said, "Before leaving I want to again express my appreciation of the co-operation of the Chestnut Farms Dairy. Nothing has been so helpful in improving the milk supply of Washington as the attitude and material assistance rendered by your organization."

Mr. Weld relates an amusing experience which well illustrates how practical business influence was needed to make the theories of the Health Department workable. Says Mr. Weld: "Mr. Woodward had long worked on a certain dairy farmer whose score ordinarily ran around 50. Not much progress was made in getting this man to use better methods. Finally I happened to come in contact with this dairyman and he told me that his banker had suggested that it would be a good thing for him to get in shape to sell milk to Mr. Oyster. This dairyman asked me what changes would be necessary in order for him to make his product acceptable to the Chestnut Farms Company.



GEORGE M. OYSTER, JR.
Founder of the Chestnut Farms Dairy,—the man behind a high quality dairy business.

"I showed him a copy of our contract and pointed out the new equipment and the new arrangements in his stables and premises that would be necessary before his product could be expected to come up to our requirements. He said he would make these specific changes and would notify me when they had been installed.

"In the course of time I again heard from this dairyman and he asked me to bring out an inspector. It so happened that I could take Mr. Woodward along. He was much puzzled at the changes he saw and could scarcely believe the figures when the score totaled 82½.

"He turned to me in amazement and said, 'I can't understand what has happened to this man. I have been trying for 20 years to get him to do some of these things which he has now done all at once. Evidently you have convinced him with your contract where my general teaching has failed to bring the desired results.' "

Naturally Chestnut Farms has capitalized this reputation for cleanliness and quality by advertising. This has led to a most gratifying increase in business and a jump from the latter end of the list of Washington milk dealers to the very top. Mr. Weld says that at present they are making little effort to increase their trade, only endeavoring to keep ahead of the natural surplus of their 300 producing farms.

Considerable use is made of the monthly Health Department circular. Permission is secured from the Health Department to reprint the circular and a judicious use of red ink brings out the high rank of the Chestnut Farms Dairy. Reference to this rank is also made in newspaper and car card advertising carried from time to time. Sometimes the actual score is given while at other times the suggestion is made that the prospective customer merely inquire at the Health Department.

Constant improvement in conditions on the producing farms, closer supervision of the product through its various handlings by the producer and consumer, and higher standards all around have resulted in material improvement in the unusually high quality milk produced by Chestnut Farms.

Sixty-six wagons, most of them horse drawn, deliver the products of the Chestnut Farms Dairy to consumers. Only a very small portion of this goes to the wholesale dealer. A few motor driven vehicles are used in making suburban deliveries but the horse is still standard equipment for this company. Mr. Weld sees no advantages and some disadvantages in using automobiles for anything except widely scattered deliveries.

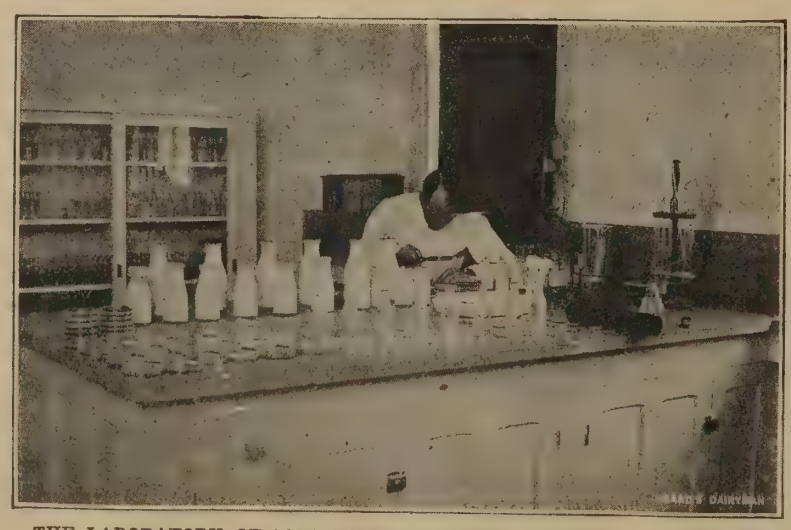
A rather unusual feature of the methods of the Chestnut Farms Dairy Company is their system of mail collections. Once a month statements are sent to all customers and checks are received through the mails. This collecting method is in sharp contrast to methods employed by many other companies which require the customers to purchase in advance the tickets for a month's milk supply. While the plan of mail collections works nicely in Washington, Mr. Weld points out that it might not work so well in a town having a shifting population.

Many milk distributors still cling to the old idea of opposing improvements which make for a higher grade and more sanitary product. They fought pasteurization and some of them now pasteurize only because it is required. Dealers of this type are now fighting the idea of requiring all cows to be tuberculin tested.

Mr. Oyster insists that his policy of meeting the health authorities much more than half way is not only the most satisfactory policy but is actually the best from the dollars-and-cents viewpoint. Certainly his experience in building up the leading milk business in Washington City lends some weight to the argument. This policy has repaid Mr. Oyster in several ways. First, he has a list of satisfied producers. Milk producers hold it a distinction and an honor to be on the Chestnut Farms' list. It enables them to report a somewhat higher return for their milk than that received by their neighbors.

Neither does this policy result in a burdensome charge on the consuming public. A comparison of Washington milk prices with those of other eastern cities of similar size shows that the best Washington milk is usually not more than 1 cent per quart higher.

At all events, Mr. Oyster and Mr. Weld have every reason to feel well satisfied with the way their advanced policy has worked out in building this business. There may be a suggestion in this for producers and distributors in other territories. It must not be forgotten, however, that the very foundation for this success was a strong health department willing to co-operate with any member of the industry who desired to place his product on a high plane.



THE LABORATORY OF THE CHESTNUT FARMS DAIRY IS A VERY IMPORTANT FACTOR IN THE PRODUCTION OF HIGH QUALITY MILK BY THIS ORGANIZATION

The Baldwin Creamery

The Baldwin Co-operative Creamery located in Western Wisconsin is one of the largest in the country ranking with Clear Lake and one other as second only to the famous Barron Creamery. In looking over the annual financial statement we find that the interest on the daily bank balance was enough to pay a treasurer $240 and still have $942.29 left. Most creameries allow the bank the interest on the daily balance for doing the treasurer's work.

The creamery gathered 1,304,028 pounds of butterfat from 600 patrons within a radius of about 10 miles.

This compact territory enabled the management to collect 100 pounds of fat for $1.35, the cheapest the writer has observed in Western Wisconsin.

The net price of butterfat back to the patron, less hauling, was 50.9 cents per pound.

The manager receives $1,500 per year. The creamery building is valued at $25,000 and the machinery and equipment at $13,300. The average overrun was 23.3 per cent.

Though the creamery is a co-operative, it is not yet a member of the Wisconsin Co-operative Creameries' Association.

Wisconsin. LEO. S. BOHRENSTEDT.

MAPLE CREST KORNDYKE HENGERVELD

MAPLE Crest Korndyke Hengerveld was bred by Dimoc Brothers of Ohio. The sire of Maple Crest is Friend Hengerveld De Kol Butter Boy and his dam is Maple Crest Pontiac Flora Hartog. She has an official yearly record of over 960 lbs. fat and her dam has also over 960 lbs. fat to her credit. The Dimoc Brothers' herd became noted for its many high producing animals. In other words, the pedigree of Maple Crest Korndyke Hengerveld is written in butterfat and many of his ancestors held world yearly records.

Mr. D. D. Aitken of Michigan bought Maple Crest Korndyke Hengerveld when he was two years old and, after he had used him for several years in his herd, he offered him to Mr. M. W. Wentworth to be used in the Lakewood Farm herd and for several years he has been the head of that splendid herd which produces the best quality of milk for the Battle Creek Sanitorium.

It may be said here that Dr. Kellogg, Superintendent Battle Creek Sanitorium, through careful experimentation, has shown that milk is one of the most important foods in the human diet and that it is essential to health, that it be clean and wholesome. In view of this, a herd some years ago was established to provide milk for the patrons of the sanitorium. It is fortunate for the Holstein breed that Mr. M. W. Wentworth, steward of the Battle Creek Sanitorium and in charge of the Lakewood Farm, appreciates the necessity of breeding and developing efficient dairy cows. It is quite possible that if he had not made use of this sire he would not now be in service in his fourteenth year and on his way to becoming a double century sire. He has at the present time 113 A. R. daughters and there are 70 cows in the Lakewood Farm herd now in calf to him.

It has been an outstanding belief of Mr. Aitken and Mr. Wentworth that good bulls should be given larger opportunities and fewer inferior bulls kept in service. In their co-operation in the use of this bull, they have given him a splendid opportunity and the results are a large number of good type and high producing cows. They have made substantial progress in the development of their herds because they have been wise enough to keep this bull richly bred, prepotent, and capable of transmitting these qualities to progeny in service to a ripe old age. The illustration on this page shows Maple Crest Korndyke Hengerveld at the age of 13 years and four of his daughters.



MAPLE CREST KORNDYKE HENGERVELD, THE ONLY LIVING CENTURY SIRE



LAKEWOOD MAPLE CREST AMY
Record in 365 days: 21,263 lbs. milk, 832.51 lbs. fat.



DORIS MAPLE CREST WAYNE
Record in 305 days: 16,051.7 lbs. milk, 594.96 lbs. fat.



KIRKWOOD PAULINE BERTJUSCA
Record in 305 days: 22,089.6 lbs. milk, 700.24 lbs. fat.



LAKEWOOD MAPLE CREST FLY
Record in 7 days: 612.8 lbs. milk, 24.64 lbs. fat.

CLOVER SEED WARNING

R. A. MOORE, Wisconsin College of Agriculture

CLOVER is the farmer's friend. For many years our standard red and alsike clovers have stood steadfastly as the farmers' friends. No person is worthy the name of farmer who does not recognize the high value of red and alsike clovers. They have performed their part well and have been the means of bringing success to farmers who grow clovers persistently in the various rotations used upon their farms.

In the early history of our country when farmers grew wheat without any thought of rotation and sold the fertility, especially the nitrogen from the farms through the sale of this great cereal, the clovers stood ready to bring back that nitrogen which had been taken from the soils and put again into good physical condition the soils which had been ruined through impractical farming. These self-same clovers stood ready to thin out the weeds which then infested the fields and the Canada thistles grew thinner and thinner and many of the other common weeds were eradicated entirely. Many of the states became interested as well as our Canadian brothers who saw the necessity of seeding the farms to clover to keep up the fertility of their lands.

Facing a Difficult Problem Through Rapid Introduction of Foreign Clover Seed

During the past three or four years, it will be noticed that many of our states have been on the wane as to clover and clover seed production. This has been largely brought about by the importation into the United States of a vast amount of clover seed from the Southern European countries. This clover seed is fine in appearance and often devoid of any foul weeds. It looked good to our seed merchants and it was quite eagerly purchased as it reached our shores. A large amount, however, got into the trade circles and it was purchased by innocent seed dealers thinking the same was a domestic clover and consequently millions of bushels of this worthless seed was sown by the farmers of the United States. The result was almost a failure. Many of our farmers became discouraged in regard to the growing of clover and gave up in despair, consequently the great cut in clover seed production.

Farmers and Seedsmen Should Purchase Domestic Seed

In order to overcome this great damage which has been inflicted upon the clover growing states, farmers are requested to purchase nothing but domestic seed as far as is possibly known. The seedsmen of the United States have been quick to realize the importance of this and we feel are putting forth their utmost endeavors not to be tricked into purchasing any clover seed stock except that of which they really know the origin without any doubt whatever. If these principles are adhered to, we will come back into our own as far as clover production is concerned and will guard against the sowing of clover seed which dooms the farmer to failure before it ever goes into the ground.

Domestic Seed Eagerly Sought

The prominent success obtained by farmers and stations through the sowing of domestic clover seed in comparison with the Southern European clover seed has lead to the purchase of our domestic seed at a very early date by all parties handling seed for retail purposes. Consequently the farmer who purchased his seeds early is more apt to secure the domestic seed than if he waits until the last moment. There will not be more than half enough clover seed grown in the United States to seed the area which is desired to be seeded down to clover. Consequently, under the present rules and regulations governing the shipping of clover seed into this country, there undoubtedly will be a large amount again shipped in from the southern European countries. Strenuous efforts are being made on the part of our farmers to get a bill passed by Congress so as to color these foreign shipped seeds so that seedsmen and others will know definitely that they are not seed grown in this country. However, until this bill, which is known as the Haugen Bill, becomes a law, great quantities of worthless foreign seed, in spite of precautions that are now being taken by the several states of the Union, will be shipped in and distributed.

Every farmer in the clover area who is to seed clover next spring should not wait until the last minute until he places his order for seed, but should immediately, right off, find where he can get good northern grown seed and purchase the same and hold for his spring seeding. Often complete failure and the loss of several hundred dollars per farm will occur by a farmer waiting a few days before he is ready to seed and then place his order for seed that he knows very little about. On the average, nearly half of our farmers have been purchasing foreign seed and purchased the seed because it looked beautiful and consequently were trapped into putting clover seed into the ground that gave them nothing in return and blighted their inspiration on producing crops of hay and seed.

Through these series of years when we have experienced so much trouble with the red clover, the alsike clover

(Continued on page 821)

REMAKING A HERD

R. M. TENNANT, PENNSYLVANIA

THE remaking of an ordinary dairy herd into an extra good one which shows its owner a profit is an accomplishment of merit. This was done by C. C. Stoyer of Mercer County, Pennsylvania, who faced the equal problem of making a living for himself and family while he was making over his herd. He did it by following the advice of Emerson who said that the way to solve any hard problem is to divide it into as many small problems as possible and then tackle each one separately.

Mr. Stoyer conceived the idea that his was not a herd problem but an individual one and that each cow must do her share or get out. He was located in a good dairy country, had good clover hay and fed his cows well. The cows were grades, mostly of Guernsey breeding. Figuring his yearly returns from the creamery it showed that his cows were producing an average of about three-quarters of a pound of fat per day. This was above the average of the dairy cows of the state but he was not satisfied.

Mr. Stoyer had read of the improvement in production made in cow testing association work and in 1921 decided to try it out. There were not enough farmers interested in testing work at this time to form a full association, but several farmers who were interested hired a neighbor to give them a private test one day each month. The testing started January, 1922, and continued for six months. During this period, with nine cows milking, the records of the Stoyer herd showed an average production of 6,258 lbs. milk, 278.8 lbs. fat per cow per year. The average butterfat test was 4.6 per cent. While these figures are computed on a yearly basis the test was for six months. Mr. Stoyer commenced to cull the poorer cows as soon as his figures showed which cows should go and as he had heifers come into milk to take their places.

This herd had been headed by a pure-bred sire of known production for several years prior to starting testing. He was a grandson of Galaxy's Sequel, who has a number of A. R. daughters and sons to his credit, and while the immediate dam had no record, he had some 600-lb. cows in his ancestry. His daughters from the best cows in the herd had been raised by Mr. Stoyer and were ready to take their places in the herd. In every case the daughters were better producers than their dams. As is so often the case this sire was sent to the block before his prepotency was known.



C. C. STOYER AND HIS HIGH COW, NIGGER
She has two yearly records of 436.8 lbs. and 482.2 lbs. fat respectively.



BARN AND HERD ON THE STOYER FARM, PENNSYLVANIA

Mr. Stoyer says he is sure he could not have gone out and bought cows of sufficient producing capacity to have raised the average of his herd above that of 278.8 lbs. per year. In fact it has been the experience of dairymen that the replenishing of the herd by buying from dealers or other dairymen is pretty much of a gamble. Fifty per cent of the cows purchased are sent to the block after or during the first lactation period. Owners who do not test get very much mixed on the production of their different cows.

July 1, 1922, the Mercer County Cow Testing Association No. 3 was organized. This was a regular association under supervision of Pennsylvania State College. Mr. Stoyer joined this association and has now two years' records completed. The first year in the authorized association there was an average of seven cows in the herd. Two of the poorer cows had been disposed of and there were no heifers ready to take their places. The seven cows averaged for the first year 6,970 lbs. milk, 355.3 lbs. butterfat per cow. The average butterfat test was 5.1 per cent. This was an average increase per year per cow of 712 lbs. milk, 76.5 lbs. fat. Figuring fat at forty cents per pound this is an increase of $30.60 gross income per cow per year.

Mr. Stoyer sells cream to the Greenville Dairy Company and the gross income for the year 1922-23 was $1,470.57 and the total feed cost was $524.39. The value of the product above feed cost was $946.18.

The second year of the association Mr. Stoyer had six heifers and four mature cows in the herd, and even with the handicap of the heifers the average production increased. For the year ending July, 1924, the average production was 7,101 lbs. milk, 378.7 lbs. fat per cow per year. The butterfat test averaged 5.3 per cent. The average increase per cow per year was 131 lbs. milk, 23.4 lbs. fat.

The total increase in production covering the two and one-half years' testing period was 843 lbs. milk, 99.9 lbs. fat per cow per year.

The largest amount of fat produced during the 1923-24 period was

(Continued on page 822)

STARTING ALFALFA IN GEORGIA

PAUL TABOR, Georgia College of Agriculture

Go out and find a deep rich field,
Well drained and sweet with lime,
Apply some acid phosphate dust,
And work the soil up fine;
Order the best and cleanest seed,
Inoculate and sow,
Cover as shallow as you can,
And watch the young plants grow.

SO runs the rhyme for starting alfalfa and oftentimes so goes the advice of a crop man from the college of agriculture. Both are correct, so correct that much reading between the lines of the rhyme and between the words of the specialist trying to give advice that will fit varying conditions in different parts of his state, is necessary before very definite plans for growing alfalfa on a certain farm can be mapped out. The writer is aware of the above condition because he has been a crops specialist and has had something to do with alfalfa in Georgia. Under the directions given from the college many farmers have been successful in starting alfalfa fields. A recent survey by the farm economics men shows that the average cost has been about thirty dollars per acre in a representative section of the northern part of the state. For the farmer with this much money to spend, it is easy to make out a plan of action that will insure alfalfa two-thirds to three-fourths of the time. For the farmer who feels he cannot spend much money in starting this plant and who cannot afford to lose one or more seedings, the practical scheme is yet to be found. Probably it will never be perfected. Alfalfa in the East may never be started without considerable expense. It can be grown cheaper, however, than was once believed and still there are possibilities of cutting corners and saving expenses.

The Need for Lime

An example of saving money in starting the crop is the reduced amount of lime being used by some farmers. The advice several years ago was to use one to three tons of ground limestone per acre. In a test at Athens on good land the difference between the limed and the unlimed plats has been very small. Similar results have been noticed on rich lands in other parts of the state. On the thinner soils the results of lime have been more striking. With a limited amount of evidence, it seems entirely possible that the lime requirement varies largely with the richness of the soil; the really good soils requiring little or none and the medium to thin soils a considerable quantity to make good yields.

Considerable evidence of a similar nature has been collected in the tests of Hubam clover and yellow annual melilotus, two lime loving plants that were introduced recently and tried out extensively in small patches by farmers all over the state. When either of these plants were grown in the garden it made a fine showing either with or without lime. On ordinary land, however, both showed the need of lime, very distinctly.

Just how rich the soil needs to be to grow alfalfa without lime no one knows. It is one of the problems awaiting extensive tests in all states of the East. For the farmer expecting to grow a considerable area to alfalfa, several test plats could be laid out and different amounts of lime used to see which application is sufficient. To those who want to be sure of success, the old plan of one to three tons per acre is probably best.

Soils Suited to Alfalfa

Much advice has been given about selecting well drained lands for alfalfa, and it is correct but rather hard to apply sometimes. The well drained specification kept alfalfa out of bottom lands for a good many years. Some of the best fields in Georgia are on small areas of rich, loose bottom lands where the water table is practically always two to three feet below the surface. On the other hand, some of the worst failures have been on high land where the top soil was sandy and the subsoil a dense clay, and the land rather level. The best explanation offered for such failures has been the drowning out of the plants during a continued wet spell, when the top soil took in the water faster than the subsoil, making the top of the ground a sloppy, miry place easily capable of killing out the alfalfa. This explanation may be faulty but the knowledge that alfalfa fails to thrive for several years on level or nearly level land with a loose topsoil and a compact subsoil, is not. Near such fields where alfalfa has languished, there have been cases of its growing well on deep sand, but in such a location it needed constant applications of commercial fertilizers. On the sandy topsoil fields where alfalfa does not thrive for several years, it may do splendidly for a part of a year or sometimes for more than one year. In such situations there is a possibility of using it as a short time crop, but there will be greater financial risks with such a plan.

Seed and Time of Seeding

In the tests of different strains of alfalfa from different parts of the world, a number have been outstanding. As yet no sources of seed have

(Continued on page 817)

The South's First 1,000-lb. Cow

THE 1,000-lb. butterfat record that has just been completed in North Carolina by the Jersey cow, Princess Elise, gives her first place over all dairy cows in the southern states, in addition to the honor of being the only cow of any breed to make a 1,000-lb. record in this part of the country.

Such a splendid record speaks for itself, but it also has a significance that cannot be overlooked, for Elise's record sums up and emphasizes the steady progress that the South has been making in dairying and in the breeding and developing of high producing Jerseys. One swallow doesn't make a summer, but though Elise is a pioneer in great production in the South there is a host of splendid producers steadily advancing at a little distance behind her. Thirty-nine state class records have been broken this year by Jerseys in the southern states, so it will be seen that Elise's record is not only a great individual achievement, but it is a symbol of the remarkable progress of dairying in the "New South".

At the age of 6 years and 4 months Elise started on this remarkable test and in 365 days she produced 1,003.74 lbs. fat and 17,064 lbs. milk.

Princess Elise was first tested as a senior two-year-old when she produced 423.60 lbs. fat in 365 days. As a junior four-year-old she was again placed on test and this time she yielded 739.90 lbs. fat in 365 days and won both a gold and a silver medal as well as the state championship for this age class.

When a new high state record is made, one instinctively looks for the man behind the cow, and in the case of Elise it is R. E. McDowell. In 1916 Mr. McDowell returned to his farm following eight years of business life. This farm has been in the family since 1729, but not one of its previous owners had ventured into live stock, and for a great many years cotton had been the chief crop. Mr. McDowell admits that after he had finished school he had never planned to spend another year on the farm, but after some experience in the Mississippi Valley he became intensely interested in live stock, and this led to a change of attitude toward the farm.

A few grade Jerseys made up his first herd, and on Oct. 16, 1916, he sold his first can of milk—3 gallons. It is interesting to note at this point that just eight years to the day elapsed between the time that the first can of milk was sold and the time that Elise finished her championship record.

Milking five head in the winter of 1916 without a silo was up-hill work, so plans were made for a silo and for an abundant supply of home-grown feeds. At the same time McDowell realized that unless he had good cows to consume these feeds there was but little to be expected from dairying. The final decision was to acquire a few pure-breds. The silo was ready the second winter, and the third winter three registered Jerseys took their places in the stanchions. After this he decided to go a little faster in collecting a pure-bred herd, but it was not until 1919 that five more head—including Princess Elise—were added.

When asked about his experiences with Jerseys at this time he said, "I had always recorded the weight of the milk of each cow as a matter of routine, but in 1920 a testing association was formed in our county and this made it possible to really start testing work. Two cows were placed on official test at this time, and Princess Elise was one of them. The first Register of Merit record in this county was eventually completed, and both she and I learned how to do it on that first test. Since that time I have made about 25 official records, winning four state class championships. Every cow I now own has an official record or is making one. There are now 51 head on the farm, all registered except the young things to be registered later. All of my cows have made their records in stanchions with the herd, the only difference being that they are fed more carefully, and as a rule milked three times a day".—The American Jersey Cattle Club.



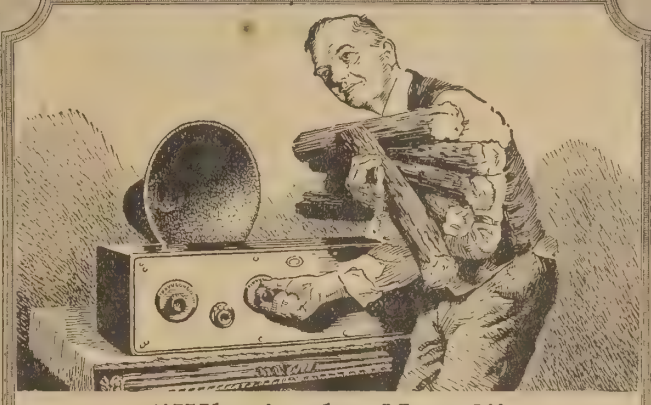
PRINCESS ELISE PRODUCED 17,064 LBS. MILK, 1,003.74 LBS. FAT IN ONE YEAR, WINNING BOTH A GOLD AND A SILVER MEDAL. SHE IS OWNED BY R. E. McDOWELL, NORTH CAROLINA

Just As He

At the World's Dairy Congress Mrs. Ira Crouch Wood told a story that will be largely appreciated by both the chairman of many a meeting and the long suffering auditors. A certain man was presiding at a meeting where there were several speakers. As the evening went on first one and then another drifted out. The hall was thinning out and still there was a speaker or two left. The poor, harassed chairman saw the people going out, and in desperation made the following plea:

"Oh, friends, don't go; wait awhile; we have another speaker on the program. He is a good man; he is an ex-officer; he is a soldier; we ought to hear him; just come back and sit down. This man is a soldier; he was in the late war; he went through hell over there for us and we ought to do as much for him here."

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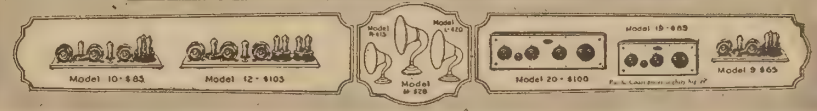
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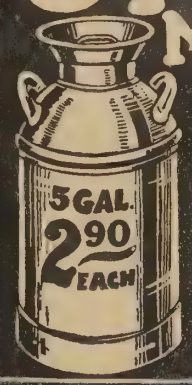
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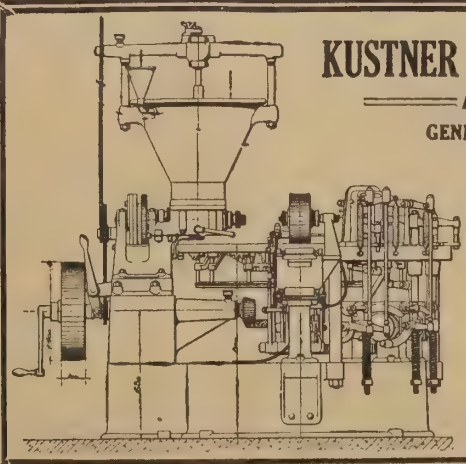


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Food Value of Dairy Products

A Radio Address By Professor N. E. Olson, Kansas

MILK and the products made from milk are among the oldest classes of food in the human diet. Milk, butter, and cheese are mentioned in ancient writings as far back as 2000 B. C. They are mentioned several places in the Bible even so far back as the Book of Genesis 18th Chapter, 8th verse: "And he (Abraham) took butter and milk and the calf which he had dressed and set it before them." Again in Proverbs 30:33 Solomon says, "Surely the churning of milk bringeth forth butter." The cow has long been the object of veneration among many races and nations and she has fairly been called "the foster mother of the human race".

It is a noteworthy fact that those peoples which have made the most liberal use of milk and milk products in their diet are among the hardiest and longest-lived peoples on the face of the earth. Metchnikoff, the great scientist and author of the volume entitled "The Prolongation of Life", credited the long life of the Balkan nationalities to their very liberal use of sour milk.

Food Essentials in Human Nutrition

Let us just spend a few moments in a discussion of the food essentials in human nutrition and see how well milk meets the requirements. Without these food essentials children cannot grow to be healthy men and women.

Proteins

First the body requires proteins. Proteins are represented in the human diet by such foods as lean meat, eggs, and legumes. Milk contains 3.5 per cent protein. Casein or curd is the principal milk protein. The proteins furnish the material for building muscle and other tissues. Without it growth cannot take place. Proteins from various sources are not all of equal value in building body tissue. Milk protein is a phosphoprotein, the most efficient class of protein for tissue building.

Fats and Sugar

Next the body needs fats and sugar for body fuel, that is, to be burned in the body, thus supplying heat and energy. There is no fat superior to butterfat. It is particularly easy to digest. Milk averages 3.9 per cent butterfat. Cream varies from 16 to 40 per cent in fat and butter averages 82 per cent fat. Milk furnishes sugar in the form of lactose, a sugar found no place else in nature. It is especially valuable since unlike other sugars it finds its way to the large intestines before being entirely digested where it exercises a beneficial effect in preventing putrefaction, an important cause of sickness both in children and adults. There is an average of 4.75% milk sugar in milk.

Mineral Matter

The third class of food material is minerals. They are necessary for skeleton building and other tissue. Milk is rich in calcium phosphate, the principal mineral matter in bones. Dr. Sherman of Columbia University thus states the need of lime:

"Calcium is present in the body in greater relative abundance than other mineral. Milk contains slightly more calcium, volume for volume, than does lime water. As a rule, the calcium content of the diet depends mainly upon the amount of milk consumed. In family dietaries where ordinary quantities of milk are used the milk is apt to furnish about two-thirds of the total lime in the diet. Without milk, it is doubtful if the diet will be as rich in calcium as is desirable either for the child or for the adult."

Vitamins

The last general class of food essentials are vitamins. Without vitamins growth cannot take place. If insufficient in quantity, ill health or death results. We do not know what vitamins are but we do know the part they play in diet. There are three principal vitamins which, for want of a better name, are called A, B, and C in the order of their discovery. Milk contains all of them.

Vitamin A is associated with the fat in certain foods. Butterfat is particularly rich in this vitamin. It is also found in the fats of the glandular organs, such as the liver. Muscle fats contain very little, while vegetable fats such as cotton seed, cocoanut, and peanut oils contain none. It is readily seen that there is no substitute for butterfat in the diet.

Vitamin B is more widely distributed and is plentiful in milk. It is found in many fresh unrefined foods, such as whole wheat bread and fresh vegetables. Vitamin B is removed with the bran in making white flour and polished rice.

Vitamin C is less widely distributed and more unstable than the other vitamins. Fresh oranges and tomatoes are the most abundant sources of this vitamin. Milk contains it when the cows are on pasture but since it is uncertain physicians recommend that children be given orange or tomato juice regularly.

Milk Compared to Other Foods

While milk is considered a liquid food containing as it does about 87 per cent of water, the balance or 13 per cent is solids. Milk contains more solids than beets, carrots, squash, turnips, and many other so-called solid foods.

In protein one quart of milk is equivalent to seven ounces of sirloin steak, six ounces of round steak, 4.5 eggs, or 8.6 ounces of chicken.

In energy value one quart of milk is equivalent to 11.3 ounces of sirloin steak, 14.9 ounces of round steak, 9 eggs, or 14.5 ounces of chicken.

From these figures it is seen that milk is one of our cheapest foods as well as our most complete food. Farm families could well afford to make a more liberal use of milk, thus saving much of the money spent in town for meat and the diet would be improved.

Milk Products

Thus far we have only discussed fluid milk. Now let us consider the products which are made from milk.

Condensed milk and dried milk when mixed with water in the proper proportions are equal in food value to fresh milk though not as palatable.

Buttermilk and skimmilk are very high in food value, the only ingredient which has been removed being the butterfat. They have essentially the same composition. They are healthful, stimulating beverages and a cheap source of the valuable milk protein, sugar, and lime.

Butter is concentrated milk fat and as such is very rich in vitamin A. There is no more delicious food than good butter.

There are a great many varieties of cheese. Almost every white nation has its favorite cheese. The common

varieties in America are cottage cheese, Cheddar or American cheese, Swiss, Brick, and Limburger. Being made from milk all are very high in food value and rich in vitamins. The United States consumes less cheese than any other white nation. The diet would be improved by its more liberal use. It is a worthy substitute for meat.

Ice cream has been called the "Rose of the Dairy Industry" and the "American Dessert". But it is more than a dessert. It is unquestionably the most nearly perfect food available, containing as it does all the ingredients of milk in concentrated form. That the consumer is recognizing the food value of ice cream is evidenced by the enormous annual increase in the sales of ice cream. There is no more delicious dessert than ice cream and from a dietary standpoint it is far superior to pastries. The slogan "Eat a plate of ice cream every day" is good advice and worth heeding in the winter as well as in the summer.

Conclusions

In conclusion I wish to quote from Dr. E. V. McCollum of Johns Hopkins University, the discoverer of vitamin A and probably the greatest nutritional expert in the world and a champion of the dairy industry.

Dr. McCollum says: "Milk is our protective food and its use must be increased. The liberal use of milk has made us what we are. No family has the right to purchase any meat until each member has at least a pint of milk daily and this I regard as below the optimum. Milk is just as necessary for the maintenance of health in the adult as in the young. I have become convinced that we should adhere throughout life to such diets as will induce normal growth in a child of three to five years, if we would maintain the highest state of physical well-being of which we are capable. Let me repeat that any reduction in our consumption of milk and its products will be reflected in a lowering of our standards of public health and efficiency."

Bank Aids Dairymen

Dairying in Butler County, Kansas, is fairly well established and has been the chief source of income for the majority of farmers during recent years. In the Augusta territory Holsteins are greatly in the lead. The "Black and White" can now be seen in every direction. Although there are several fine herds and individuals to be found on these farms, there is a greater need for better stock and more improved dairy methods.

A pure-bred Holstein bull, a blue-ribbon animal in the junior class, was purchased by the Brown and Sons State Bank at the Kansas National Live Stock show at Witchita in February, 1924. This animal was placed with a farmer in a central location, affording the opportunity for well-bred Holsteins and other grades to be bred to a fine sire, at a nominal fee, where otherwise they might be bred to sires of inferior breeding. An effort is also being made to get farmers to co-operate in the purchasing of good bulls.

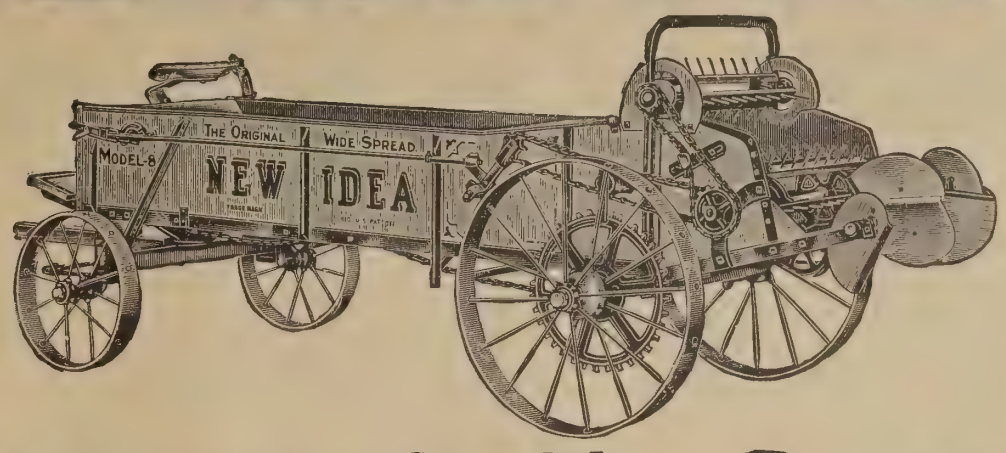
A Holstein calf club was organized with five girls and seven boys. During the season dairy work was carried on at the regular meetings, and their calves exhibited at the county show carried off a majority of the ribbons.

Believing that the average farmer has much to learn in the way of care and management of dairy stock before he can become a successful dairyman, an educational program is being constantly carried on by the bank in the endeavor to help every man succeed through personal service, as well as by financial aid.

Farmers are urged to use better sires. "Grow In, Instead of Buy In" to better stock, use the Babcock test and milk scales, cull out the poor cows, and raise proper feeds. With the co-operation of the county agent, a week of special dairy meetings have recently been held in connection with a campaign for the organization of a cow testing association. A special film, "Jonathan Barr's Conversion", was obtained from the Extension Service of the Holstein-Friesian Association of America, together with one on pure-bred sires. These meetings were held at community centers, where the largest number of dairymen could be reached. From the present indications an association will be formed before spring.

The Brown bank is assisting farmers in the purchase of dairy stock, the cattle being paid for out of a portion of the cream checks. So far as possible the farmers are urged to help select their own stock.

H. S. BACHELLER.



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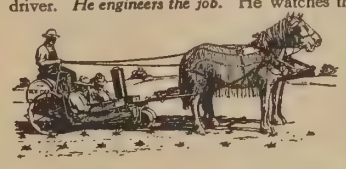
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EDITORIAL COMMENT



STUDY THYSELF

On the surface it would appear that the chief business of the dairyman is to grow crops and through cows convert these crops into milk to be sold as so many pounds of either whole milk or butterfat. Thus far his ability is measured merely in pounds of dairy products.

The good dairyman sells more of his ability than that necessary merely to produce pounds of dairy products. There are other things a dairyman can sell besides pounds. He can sell skill in attention to sanitation, in attention to disease control, in attention to handy and efficient equipment, in attention to breeding for more economical production, in attention to marketing his product, in attention to growing the best combination of crops. The difference in ability to give attention to these things is the difference between successful and unsuccessful dairying. This being true, is it not fair and right to say that there is something to market out of the creative abilities of a dairyman besides mere pounds of dairy products?

In the last analysis the measure of successful dairying is determined quite largely by the ability of the man factor to put into practice such qualities of skill as will result in the greatest economy of producing a high quality product sold at a profit. If dairymen would study themselves more with a view to developing and organizing the potential skill that they already have, the dairy industry would yield an even greater satisfaction in returns than it is doing at the present time.

It is worth trying.

VALUE OF TESTING

Cow testing associations determine the production of every cow belonging to members of the association. They locate the good, the medium, and the poor cows which cannot be found in any other way. After the capacity of the cows is known, there is opportunity of increasing the production of the herd. The constant breeding of the best producing cows to a well selected bull should establish a herd of high producing dairy cows.

Cows under test receive better care and more concern is given to the subject of feeding. When there is nothing to prompt the dairy farmer to study the individuality of the cow, her needs are not watched as closely as when there is some object in giving her attention. The owner learns to know his cows as individuals, each one becomes a personality of interest.

Weighing the milk brings the attention of the milker to any abnormal decrease in milk flow. It is not uncommon for cows to shrink in the flow of milk unnoticed unless the attention of the farmer is called to the production of each animal. The scale does this.

Some cows are capable of giving large flows of milk at the beginning of their lactation periods and then fall off rapidly in their milk flow and produce rather low records. They loaf most of the year. On the other hand, there are the persistent milkers which never seem to give a very large flow of milk, but persist from nine to ten months a year and make very creditable records. They work most of the year.

Knowing what cows to select makes it possible to keep fewer cows and yet produce the same amount of milk and fat. The profit from such a herd is larger and the work less.

Keeping of records sets the farmer to thinking and leads him to consider his cows in a different light; it leads him to be a better dairyman. Everybody that comes in contact with cows under test is influenced, and all work to the advantage of the cows.

Then there is the personal satisfaction of knowing. It is more interesting to know what profit a herd of cows is giving than not to know, that is, if the dairy farmer is interested in dairy advancement.

By its actual demonstration of the money value of co-operation, it puts down the dollar and builds around it a better community spirit. It brings neighbors closer together, and—we need good neighbors in the country.

It opens the way for the co-operative buying of feeds, and the business is large enough so the officers study the feed market and discover the cheapest kind of grain and where to buy it.

It provides a check on the tests of the man to whom the milk is sold, and also discovers whether the separator is working properly.

It interests the young people on the farm. As one young man whose father was a breeder and owner of race horses said: "The interest in breeding and racing horses is mild compared with the interest in putting a record on a cow and seeing what I can make her do."

It aids in the selling of cows because it supplies a public record in place of a private record.

It not only discovers the poor cows, but it discovers the poor dairyman. It tests the cow, the man, and the methods, and the man by knowing these things can improve all three.

It sets up a community interest whereby members are induced to grow the proper feeds for their cows; to work as a unit for the eradication of such diseases as tuberculosis; to make improvements in their barns and in their cropping methods, and to do many other things that would not be done if there was not an association and a tester visiting this group of farmers one day a month.

IMPROVED OPPORTUNITY

Last spring a farmer reported to his county agricultural agent that his chicks were dying. He said that a great number of them were weak in the legs and many could not walk. The county agent asked him to bring in a few of the chicks that were typical of the condition, which he did. These were sent to the state experiment station to the veterinary investigation department.

The report came back promptly that these chicks were the best illustration of bone deficiencies that had ever been received. What should have been bone was nothing but mere cartilage which, on analysis, showed scarcely any calcium at all. The veterinary specialist recommended a feeding ration containing a good protein, ample ash, and the necessary vitamins—and sunlight. The ration consisted of yellow corn meal 97 parts, ground limestone 2 parts, salt 1 part, together with free access to skimmilk. The farmer immediately provided the things prescribed by the specialist and the chicks took on a new lease for life.

This illustration, typical of thousands of cases, is given to show two important developments in our modern agricultural educational system. The first important factor is that farmers have begun to use the services of experiment stations very much more than in former years. For a half century agricultural experiment stations have been patiently digging away at perplexing problems, such as leg weakness in chicks and many others. It is only within the past ten years that we have begun to appreciate the value of the services of these stations. Experiment station workers are now finding an increasing demand for the products of their labor.

It is quite likely that if this particular farmer had not had close contact with a county agent, he would not have been able to apply this newer knowledge to the rearing of the chicks and they thereby would have died—a great loss to him.

Along with the improvement in knowledge concerning agricultural problems, there has come an improved system for making this knowledge available to farmers. In order that these improvements may be used to the fullest value, it is necessary that farmers have a real desire to overcome their many problems, that they have confidence in the ability of the improved system to help them, and that they actually use the opportunities offered. County agents, cow testers, and reliable farm papers all are a very vital part of this improved system.

If a farmer buys an improved machine, he does not expect it to be of value to him unless he uses it.

USE AND ABUSE OF LIME

The use of lime in various forms dates many centuries back in agricultural history. Its introduction into Mid-west American agriculture is comparatively new. That "necessity is the mother of invention" is partly applicable in the case of the use of lime on land, there can be no doubt. While it begins to be necessary for many farmers to use lime in order to grow profitable crops, there has been no new "invention" in its use but merely the application of old principles to the new condition as it arises in the course of development in a particular agricultural section. These things being true, as they are, it is important at this time when so many farmers are using lime and finding it a profitable investment and when so many more are being urged to use lime, to inquire into the past and see if there are some guideposts of caution that ought to be set up in the newer sections where the use of lime is rapidly coming into prominence.

As far back as 1660 in the history of the development of English agriculture, it is found that the use of lime was valued very highly because it gave increased production. An article by T. Henry, published in 1777, says in part concerning the use of lime and marl as manures: "Upon the whole, may we not conclude that lime, in most cases, is a stronger manure when it has recovered the air of which it has been deprived in calcination than it is when brought fresh from the kiln; and that when procured for the purposes of agriculture its efficacy and permanency will in general be increased by mixing it in its effete state with the other ingredients which enter into the composition of marl?" An English record of 1795 mentions the "prevailing practice of sinking pits for the purpose of chalking the surrounding land therefrom," and states that "the most experienced Hertfordshire farmers agree that chalking of lands so circumstanced is the best mode of culture they are capable of receiving."

History also reveals that the continued use of lime without full knowledge concerning its abuse has produced the following proverbial expressions:

> "Lime, and lime without manure,
> Will make both farm and farmer poor."

"Kalk macht die vater reicht, aber die sohne arm." (Lime makes the fathers rich, but the sons poor.)

All of this is summed up to say that more than a century ago farmers found that the continued use of lime without looking after manure, phosphorus, and potassium would make more rapid progress towards land ruin than where no lime was used at all.

If the experience in the use of lime for agricultural purposes in the older sections is of any value, and we think it is, we ought to, at least, credit ourselves with enough intelligence to learn from this experience and avoid the misuse of lime.

In the light of present and past experience lime will neutralize soil acidity; it will supply a necessary plant food element, calcium; it will tend to make close textured soils more open and porous; it will contribute help to the efficiency of soil organisms; it will help to make some of the other necessary mineral elements more available.

Past experience has shown that lime *does not* contribute any phosphorus and potassium to soils. Only indirectly does it contribute nitrogen and this partly through increased legume production.

The use of lime without giving careful consideration to conserving manure, phosphorus, and in some cases potassium, will eventually bring a condition where soil is potentially less productive.

Lime is unquestionably the forerunner to the rebuilding of soil productivity but it alone cannot bear all of the load. It takes phosphorus and nitrogen and potassium and other elements as well as lime to make crops. Let us not abuse the use of lime by using it entirely as a temporary stimulant and as a cure-all.

Reseeding Sweet Clover

HOARD'S DAIRYMAN:—An article in your October number regarding reseeding sweet clover causes me to write you of my plan in having fine clover pasture the summer through.

I have one 9-acre field used for hogs and on which I run my milk cows during the summer months. I sowed half the field one spring to sweet clover, and the other half I put into sudan for pasture. The next spring the sudan half went into sweet clover and in this way I have fresh clover each year. I cut half the field for seed and enough seed scatters to reseed the next year.

This plan affords abundance of fresh clover all season—for 100 hogs and 6 to 10 milk cows. I also have other fields which are plowed and put to crops after second year.

Almena, Kansas. M. M. E.

Tramping Silage

HOARD'S DAIRYMAN:—I want to say that after two years trial without tramping silage we consider it a useless pastime.

We filled two 16-feet silos last year and it came out good. Filled them the same this year and it is coming out good.

What does a man's weight amount to on top of tons and tons of this stuff? If you could tramp it so it won't settle any more it might look reasonable to tramp, but that you will never be able to do.

Fix your pipe so silage falls in center and stay out till it gets full. Then go up and store in all you can. I will wager your silo don't get full as soon as you imagine it will.

Granton, Wis. N. D.

HOARD'S DAIRYMAN:—I have read the article in regard to tramping silage. They tell of putting in all the men they could spare. This, I think, is wrong as I have filled my silo three years without having one man in it and the result tells me not to put a man in it if he was to go in for no pay.

Alma, Wis. C. F. R.

Yield and Composition of Milk from Different Quarters

Is there any difference in the yield and composition of milk from different quarters of the udder? If so, please tell me.

Clinton, N. Y. R. S. G.

Bulletin 222 of the Missouri Experiment Station reports: The milk from each quarter of the udder has been collected separately by several investigators to determine the variation in composition and yield. Van Slyke of the New York Station found that the composition varied somewhat depending upon the order in which the quarters were milked. Beach of the Storrs Station found only a slight average variation between the quarters. Fitch and Copeland of the Kansas Station determined both the yield and composition of each quarter of 5 cows. The results are presented in the following table:

Milk and Fat Yields from Different Quarters of the Udder

Quarter of udder	(Five cows) Milk yield, lbs.	Fat content, %
Right front	2.2	4.66
Left front	2.4	5.18
Right rear	3.7	5.12
Left rear	3.1	4.84

Ration For Brood Sows

What result would one expect from feeding brood sows entirely on a ration of corn and alfalfa hay? How should the alfalfa be fed? Could one satisfactorily substitute barley for corn in the ration? Should the barley be ground?

Minnesota. N. H. R.

The Wisconsin Experiment Station states that a ration of only alfalfa hay and grain is quite satisfactory for brood sows, especially for yearlings or older sows. Gilts had best receive a small amount of a protein-rich concentrate in addition, such as tankage, skimmilk, buttermilk, linseed oil meal, or wheat middlings. This is shown by trials carried on during four winters. Each winter one lot of gilts was allowed access to good alfalfa hay in a rack and fed in addition enough ear corn to make the desired gains. Another lot was fed similarly except that they were given in addition one-quarter to one-third pound of tankage per head daily. These later gilts made somewhat larger gains and the average weight of pigs at birth was greater. It seems advisable to add a small amount of protein-rich concentrate to the ration of corn and alfalfa hay, at least for the young sows.

Feeding trials at several stations indicate that barley is worth about 90 per cent of the feeding value of corn. In all trials greater value was received from ground barley than from whole or soaked barley.

Cost of Operating Milking Machine

HOARD'S DAIRYMAN:—On page 541 of the November 14 issue of Hoard's Dairyman is given a summary of Circular No. 30, "The Practicability of the Milking Machine", issued by the Texas Experiment Station.

Regarding the cost of operation for the first three years the repairs are $47.87 each year and power (electric) $100 per year. These costs are considerably in excess of what I have experienced.

I have used a milker since April 4, 1922, on from 12—17 cows. The total cost for repairs for nearly 3 years has been $12.65, a trifle over $4.00 per year. I cannot give the exact cost of power, but use about 1 qt. of gasoline per day in the 1½ H. P. engine used.

The milker has given perfect satisfaction and would not think of trying to get along without it. However, a milking machine is not to be recommended to every man who milks cows. There are many who install milkers and after a time discontinue their use. There is an occasional cow that cannot be milked mechanically but the main reason for discarding the machine is that the operator is unable to co-ordinate the cow and the machine.

To a dairyman milking 10 or more cows who is mechanically inclined, and who understands the psychology and the physiology of a cow, a mechanical milker will render great satisfaction.

Michigan. G. S. FELT.

Does Tuberculin Affect Milk?

A Wichita, Kansas, paper reports the trial of a case in which claim is made that a baby died from drinking milk from a cow recently tested with tuberculin. It is alleged that veterinary surgeons and others know that the use of milk as baby food following such a test is dangerous. Is this true? Is such milk ever dangerous?

Alva, Oklahoma. R. R. S.

Dr. E. C. Schroeder of the Bureau of Animal Industry, U. S. Department of Agriculture, gives us the following reply to this inquiry:

"After reading the charge that a three months' old baby died on October 18 because it was fed milk from a cow which was subjected to tuberculin test on October 15, I asked the Biochemic Division of the Bureau of Animal Industry whether it knew of data to prove that harmful substances are present in the milk of cows as the result of their injection with tuberculin? The answer was, 'we do not believe that any toxic substances are produced.'

"Then, taking into account that the Bureau's Tuberculosis Eradication Division, which has made millions of tuberculin tests and is now making on an average of about twenty thousand tests per day, certainly would have unmistakably definite regulations on the use of the milk obtained from cows at the time they were being tuberculin tested if practical experience had indicated that such regulations were desirable, I asked it whether it had such regulations, or had reasons to believe that regulations might be necessary? The answer I received was, 'we have no regulations. State regulations require the removal of reacting cows from tested herds and prohibit the use of their milk. We have heard of no toxic substance in the milk of reacting cows.'

"Some time has passed since I, personally, studied the possible effects the injection of tuberculin into cows may have on their milk. The results I obtained may be stated as follows: The milk of tuberculous cows is somewhat reduced in quantity during and for a few days following the high temperature stage of a subcutaneous tuberculin test, but it contains no harmful substance which could be detected by feeding it to small experiment animals or by injecting it into the peritoneal cavities of such animals. Even the milk of tuberculous cows which were given very large doses of tuberculin failed, when it was injected into the peritoneal cavities of small experiment animals, to have any effect which would distinguish it from normal milk obtained from healthy cows.

"Now, while this does not conclusively prove that the injection of tuberculin into cows in no way changes the composition or character of their milk, it does prove, if there are changes, that they cannot be looked upon as of sufficient importance to justify regulations regarding them for the protection of public health.

"The mortality rate among artificially fed infants is distressingly high, and I am convinced that a large proportion of it is due to dirty, stale, bacteria-laden and infected milk. The younger the baby when the artificial feeding begins, the smaller the chances that it will live and thrive, and often the interval of time between seeming health and death is very short.

"Taking the number of artificially fed babies that die and the number of dairy cows that are currently tested with tuberculin into account it is not remarkable if the death of a baby and the test of a cow from which it was receiving milk should in some instances coincide in time."

Using Air Slacked Lime

I am starting a dairy herd and also to seed some of my farm to alfalfa. I have some land a little sour and have gotten burnt lime to put onto it. It is the dust from marketable lime screened out. Some of it has been laying out and air slacked. Now there has fallen some snow, and I have a spreader and can spread it on top of the snow. Would you advise this, and then harrow in the spring when snow and frost are out of ground? Is there danger of getting too much of this kind of lime on the ground? Would 2½ tons per acre be too much? That is, would it harm the soil even though a smaller amount would do? It is a sandy loam, some gravel in the subsoil. I presume it should have been mixed into the soil this last fall to seed it next spring, but would you think it would do to seed the same spring it is limed with burnt lime? What kind and amount of fertilizer would you advise putting in with the seed next spring when sown? Could it be put in at the same time with an ordinary wheat drill? I was thinking of sowing a bushel of oats for a nursery crop to be mowed for hay early in summer.

Cooks, Mich. C. B.

Lime may be applied in the late fall and worked in lightly with the disc and harrow, it may be applied in the spring just preceding the preparation of the seed bed, or it may be applied just preceding a summer seeding of alfalfa. The time of applying lime is governed somewhat by seasonal distribution of labor, road conditions for hauling, availability of the lime, and crop rotation.

We do not believe it advisable to spread air slaked lime on the snow for the reason that there would be considerable loss in the surface run-off and by leaching before the time that the lime can be worked into the top soil. Aside from this there is no objection.

Some precaution should be used in not applying too much caustic lime or burnt lime, and this is perhaps true with air slaked lime. This is especially true where the soil is rather light and low in humus or organic content. Quick acting lime, such as burnt lime or air slaked lime, has a tendency to too rapid destruction of the organic matter. It stimulates the production of nitrate nitrogen in which forms nitrogen may be easily lost if not utilized immediately.

Two and one-half tons of pure air slaked lime would be equivalent in calcium content to about 6,800 pounds of very high grade natural limestone pulverized. With a sandy loam soil on top of gravel subsoil we think two and one-half tons of air slaked lime quite a heavy application. A ton and a half would seem safer to use on this type of soil unless very acid.

There is no objection to seeding the same spring as the burnt lime is applied provided the rate of application of the burnt lime is not too heavy as to cause loss of nitrogen through too rapid destruction of organic matter. There is as much calcium in one ton of burnt lime as is found in 3,600 lbs. of high grade pulverized limestone. Burnt lime must be used with caution.

Where available, we think that good barnyard manure is the best fertilizer to use in starting alfalfa. This should be fairly fine and well distributed. Preferably, if the land is to be fall plowed, the manure should be applied just previous to plowing. If this cannot be done, a lighter application can be made just ahead of the seed bed preparation in the spring. If manure is not available, 200 pounds of acid phosphate per acre would work well with the lime. This can be best spread in the lime spreader.

Many men have found the use of a light seeding of oats as a nurse crop in seeding alfalfa very beneficial, especially where this is cut high with the mower and taken off early as hay.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D HOARD

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Entered at Fort Atkinson, Wis., as second class matter.

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Emmadine Berkshires

Emmadine Farm Berkshires were shown at the International for the first time, and their barrows won as follows: Light weight barrows, third prize; light weight pen of three, third prize; medium weight barrows, fifth and sixth; medium weight pen of three, second prize; heavy-weight barrows, third and fourth prize, and first prize pen of three. They also won first prize get of sire on five heavy weight barrows sired by Baron's Lord Romford and sixth and eighth prize get of sire on ten pigs of spring farrow sired by Foremost's Double. These ten pigs won first prize as pen of ten light weight barrows.

Blue Valley Gets Long

C. M. Long, who for a number of years has been connected with the Extension Department of the Holstein-Friesian Association of America, has resigned to accept the post of Chief of Farm Service for the Blue Valley Creamery Institute. Mr. Long will assist the Institute forces in the development of dairy cows by better feeding and better breeding to enable the farmer on the average farm to make greater profits.

By training and experience Mr. Long is especially fitted for this work. He is a practical farmer. He was the third county agent in Missouri and



C. M. LONG, NOW A MEMBER OF THE BLUE VALLEY STAFF

one of the first in the United States. During his nine years' experience in this phase of agricultural work Mr. Long originated what is now known as the Pettis County plan of introducing dairy cattle into new communities. This brought him into such national prominence that his services were secured by the Extension Service of the Holstein-Friesian Association of America. In this work he came in contact with farmers from coast to coast promoting cow testing associations, bull rings, and dairy production work.

The Institute's Farm Service department will co-operate with bankers, business and professional men, bringing methods to them by which they can effectively assist in the extension programs of county agents, agricultural colleges, and the United States Department of Agriculture. The Institute's methods will make it easier for town people to render that help to the farmer which builds up prosperous communities and brings towns and farms closer together. To help solve the problem of better feeding, 10,000 Acre Alfalfa Clubs will be organized.

Mr. Long is a graduate of the College of Agriculture of the Missouri State University where he also took a post graduate course in agriculture. His entire life has been spent in practical promotion of better farming methods.—Blue Valley Creamery Institute.

League Buys Evans Company

The New York Dairymen's League has purchased the business and properties of the W. M. Evans Dairy Company, which has a large retail family trade in Kings and Queens Counties. The transfer will take place on January 1, 1925.

G. W. Slocum, president of the farmers' organization, says that the twelve country plants embraced in the deal will be retained and operated by the association in furtherance of its policy to extend its fluid markets for the milk of the association's members. The Association, Mr. Slocum adds, has contracted to sell the city end of the business to Bordens Farm Products Company.

The Evans Dairy was founded in 1878 by the late W. M. Evans, who operated exclusively for a time in the Williamsburg section of Brooklyn. His son, William C. Evans, bought the business in 1904 and launched out on his own hook with seven wagons and ten horses. Mr. Evans rapidly built up trade. Today the company is operating 226 retail routes. Its city properties include a pasteurizing and distributing plant at 32-34-36 Lexington Avenue, Brooklyn, three additional distributing stations in Brooklyn and one in Queens.—Dairymen's League News.

Ohio's new champion Holstein cow for production of butter in ten months as a full age cow is Model Ormsby Korndyke, of the State Hospital herd at Dayton. Her record is 21,473.9 pounds milk containing 767.54 pounds butterfat—equal to 959.4 pounds butter, according to the Advanced Registry Department of the Holstein-Friesian Association of America.—Extension Dept. Holstein-Friesian Ass'n of America.

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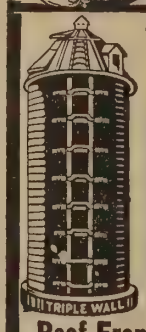
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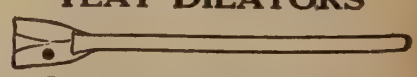
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Washington, D. C., Weekly News

[Special to Hoard's Dairyman.]

WASHINGTON, D. C. DEC. 30—Thirty-eight scientific organizations, associated together as members of the American Association for the Advancement of Science, held their annual meetings here during the present week. There has never in the history of scientific achievement been a greater gathering of the men and women of science.

Worthy of note in this great gathering which brought several thousand leaders and research workers of all lines of scientific attainment together and in the program of the various sectional meetings and organization meetings which requires a book of 248 printed pages to even catalogue, is the relatively large place given to science which has definite and important relationship to agriculture.

The dairy industry more than any other single branch of agriculture stands to progress and benefit by the work of pure science by reason of the wide problems of the dairy industry, starting with the problems of breeding and feeding and the diseases of cattle, all having their basis in pure science research, followed by the problem of the care of milk and all its products, which is largely a problem based on pure bacteriological research, and ending in the problem of trade and commerce, which is again based largely on the same factors which are the fabric of the work dealt in by the political and social science scientists.

One of the most interesting single subjects presented at this gathering was the work of Prof. Alfred S. Hess of Columbia University at a gathering of the biologists and plant physiologists, in which he discussed the effect of the ultra-violet rays on foods and animals as a means of preventing rickets. The use of milk and its products has been proven by McCollum and others to be a preventive and in a measure a cure for rickets in animals and in children. Professor Hess has made some most interesting discoveries to the apparent effect that by applying the ultra-violet rays of light to animals, even a milk deficient diet fails to induce rickets. In some way it appears that these rays of light have the same effect as milk in the diet. His development was of so much interest that it was presented by Professor Hess to numerous other groups during the sessions. Several other scientists had papers on similar and parallel subjects which were presented at the biological sections, including one of special interest by Professor Steenbock of the University of Wisconsin on Some Effects of Ultra-Violet Radiation upon Biological Materials. One entire session of the biologists' meeting was taken up with papers and studies on the vitamins and minerals in their relationship to health and growth, with contributions from various colleges and universities, indicating how widespread and complete the underlying science structure now exists for the demonstration of the superior food qualities of dairy products. Incidentally in this session Barnett Sure of the University of Arkansas produced positive evidence looking to the isolation of a "Vitamin E" having to do with the reproductive sex function, and scientists from the University of Rochester produced similar evidence.

⚜

The agricultural appropriation bill is in the hands of the Senate Subcommittee on agricultural appropriations, of which Senator McNary of Oregon is chairman. The bill as it passed the House was so nearly satisfactory that there are but a few suggested changes and additions being considered by the senate committee. One hoped for change has to do with the sum made available for the Bureau of Home Economics. The Budget Bureau recommended a small increase which was not included by the House Committee. The Senate is being asked to include this increase for the work of home demonstrations.

⚜

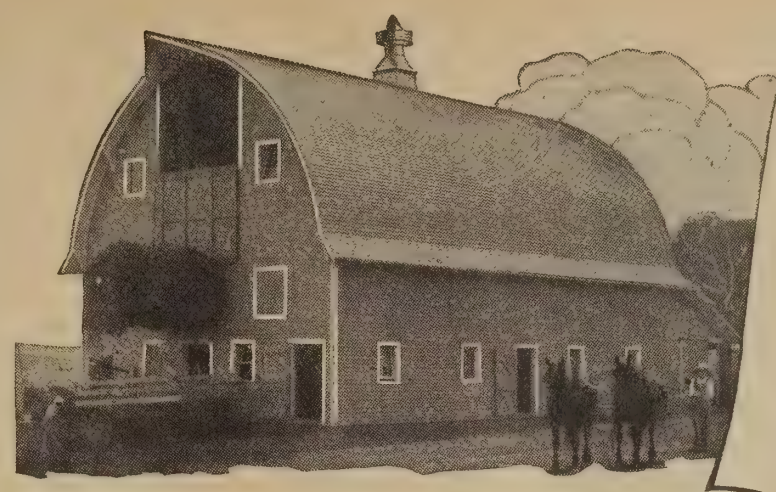
The proceedings of the annual meeting of the American Dairy Federation have been completed and issued in mimeograph form, covering about 50 large size mimeograph pages. A few extra copies are available at the office of the secretary, for the cost of issue.

⚜

The first week's work of the Bureau of Animal Industry on the reported "poultry plague" served to indicate that while there were several places where this disease had obtained a foothold in this country, the scare was much worse than the actual facts. Up to the time this is written there has been no discovery of the "plague", so-called, in any of the central or western states, the only authenticated places of outbreak being in or near New York, Jersey City, and Philadelphia.

Soon after the joint resolution making $100,000 available for Dr. Mohler and his forces, 140 members of his staff started out to locate, isolate, and clean up this outbreak. The four infected districts were located and quarantined, all sick fowls ordered disposed of, and shipment of any crates or litter which might carry the plague stopped immediately. Cars in which poultry had been shipped

(Continued on page 812)



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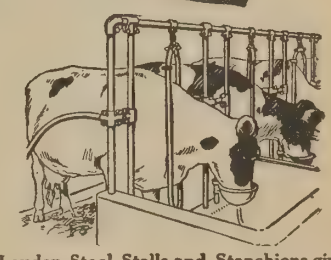
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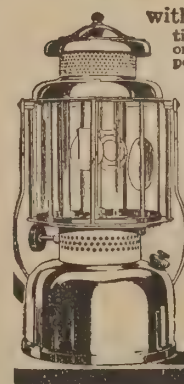


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These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

McKnight Replies to Critics

HOARD'S DAIRYMAN:—The terrible onslaught on me by Peterson, Steed, and H., makes it impossible for me to answer all the objections and assertions without taking up all the space of the Dairyman. I can only comment on a few of them. Mr. Peterson states that "the highlands of Centreville would gain no value no matter how many of my fellow citizens live in close proximity to me unless I put my holdings on the market."

If I should buy a piece of the highlands now, with its population of 2,000 for, let us say, $1,000, and that 50,000 more people locate here in the course of 10 years, will I be compelled to sell it for $1,000, or, if I do not want to sell, that I will have to rent it at the present rate of $50 or $60 annually? Mr. Peterson knows better than that. He knows that I have the legal power to exact a heavy tribute from the future users of the land. He does not deny that there is an "increase in real estate values incident to an influx of population", but does deny the unearned quality of the increase. Do I earn the difference between $1,000 and the sum for which I sell, or, do I earn the difference between $60 and $600, which I would then be able to demand? What has the price or the rental value of Buckingham Palace or our own White House to do with the question of the equity or inequity of our proposition?

He knows well enough that the advent of 65,000 people belonging to rival organizations bent upon riot and bloodshed, will not increase but decrease the rental value of the land wherein they try to carve each other, and he knows, fully as well, that the certain coming of 65,000 people one day a week, or even once a month, will certainly increase land values in whatever locality they peaceably assemble. His definition of my term "mere presence of people" is a quibble and he knows that too.

Mr. Steed denies my assertion that God gave the land to all the children because it appears that "I think that all who live on the land should pay all the tax." I think Mr. Steed will have to admit that some power higher than land owners made the land and that this power gave it to, not any man, or class, or race of men, as a source from which to draw their sustenance, but to all the succeeding generations of mankind.

I do not know where or how my critics got the impression that I want to place all the taxes on land. I am in favor of abolishing all taxes and to collect, for government revenue, the entire rent of all land. Perhaps the term "single tax" (which we have discarded) has misled them into thinking it is a mere tax problem.

Mr. Steed wants to hear from "some believer in single tax who can produce a few reasons". I have shown one reason why the rent of land should be taken by government and that is, because all the people create land rent and it necessarily belongs to all the people. The Jap or the American has the same rights to the use of land; the only reason the Jap should not share in American land rent, is because he does not help to create it in America by living here.

Mr. H. cites Russia as a place where the people tried to give the state title to all the real estate and where we of America will land if we abolish taxation and collect the rent of land for government use. It might be interesting to Mr. H. to find that one of the most prominent world leaders, Count Tolstoi, was long an advocate of the philosophy of Henry George, in fact, held that the Russian peasant's condition could not be improved without it being put in operation.

To show that the Bolsheviks, or at least their leaders, had no love for the plan, they confiscated all the little store of wealth Count Tolstoi's family had, and I talked with one of his sons then, and I suppose is yet, an exile from his native land. Mr. H. says, "Investigation shows that taxes now take 70 per cent of our rental income." If that statement is true of Greater New York City, the city could enjoy all the utilities and comforts they have now, and every year could bank away a nice little sum for a rainy day.

Let me hope my critics will show either the equity or inequity of the community kicking for the benefit of the community that which the community and the community alone creates and maintains—the rent of land.

Maryland. OLIVER MCKNIGHT.

Co-operative Marketing

HOARD'S DAIRYMAN:—I want to compliment J. L. Larson of Wisconsin on the courage he displayed in his article, "What Can Be Accomplished Through Co-operative Marketing" in the December 5 issue. I refer particularly to that part of his article which tells of some of the sources of opposition to the gradual building of successful co-operative marketing enterprises.

It seems to me that no one has a sound foundation to stand on who would deny the right of farmers to try to improve the marketing practices as applied to the commodities they produce. It is true that farmers have failed in some cases to improve the practices but this can have no weight in the argument which tends to decry the right of farmers to try to improve marketing practices.

If farmers do demonstrate that they have made an improvement they are entitled to the business and what is more they usually get the business provided; however, they keep everlastingly at telling producers that they have an improved system. The most outstanding illustration of this is the successful development of the National Live Stock Producers' Commission Association now operating on fourteen of the larger terminal markets. The only reason that these terminal associations are getting the volume of business that they are getting today is that they have improved the terminal handling services and are charging less money for these improved services.

It is true, however, that having the right to try to improve marketing conditions of farm products and actually doing the thing successfully are two different things.

A less number of people will, today, attempt to deny the farmer the right to try to market co-operatively than heretofore. In this some progress has been made.

The next most important problem, in my judgment, is that of making a correct analysis of that part of our farming practices that can be made better by an improved system of marketing. Putting the problem in another way, what part of the whole

problem should we attempt to correct through co-operative marketing?

I believe that in general farmers have expected too much from co-operative marketing and legislation largely because, perhaps, they have unfortunately allowed themselves to be led blindly by either over enthusiastic and incompetent leadership or because of the too great a tendency to attribute all of the agricultural ills to faulty distribution.

Now that we are beginning to learn some of the things that no mere system of marketing can correct and we are learning that co-operative marketing properly handled is being made an improved system of marketing, we are going forward with the program.

The successful development of the marketing of farm commodities co-operatively will be measured quite largely by a correct analysis of what a marketing practice can and cannot do and by the degree of courage and faith displayed by individual producers in the distribution of their own products.

Minnesota. S. L. W.

Against Child Labor Amendment

HOARD'S DAIRYMAN:—We are new subscribers to your paper and have read, with interest, two different articles about the proposed Child Labor Amendment. I hope enough will be written against it in the columns of the wide awake papers to bring it to the notice of the general public to fight it down. Such a law would be demoralizing in the extreme. Not that I favor child labor to the extent of being detrimental to either health or educational opportunities, but when a person has not the opportunity to learn to take responsibility in childhood, it is a hard job, at best, if not impossible to do so later.

I believe some of these narrow-minded people who will foster such ideas, with but one standpoint in view, will have to go one better and invent some patent machine which will manufacture stick-to-it-iveness and carry responsibility. If one's daily environments place them in such a position as to see children ground down by the wheels of industry or even agriculture, it would naturally induce them to foster such ideas, but there is usually more than one side to a situation, so a law which would be correct in one state or locality would not be right in another.

In the case of children left fatherless, how many mothers could or would be able to keep one or two or more children until they were eighteen years of age?

Too many laws are made by people who have had an easy time in life and didn't have to do real labor for a living. They are much like our future generations would be if this Child Labor Amendment is enacted—not responsible for their views.

Agriculture has been having a rather hard time, but there are hundreds of farmers, as well as many who are not farmers, who can look forward through the eyes of experience, and see "the beginning of the end" if this law is passed.

Very few farmers overwork their children and very few children in rural districts and the smaller towns are denied the advantages of at least a good common school education and most of them go to high school or college. What good would the extra book learning they might have, if this law passed, do them if they had not the opportunity to learn the practical side of life in their character-forming years?

I believe, if our present laws are enforced and state laws were enacted, or those already enacted were enforced, which fit the local needs, our nation will be nearer saved than through the proposed amendment.

To me, this proposed law appears almost as a step toward Bolshevism, as I understand Bolshevism.

Iowa. H. S.

Agrees With Creswell

HOARD'S DAIRYMAN:—Just been noticing your article "Slave Farmers Blamed" by J. B. Creswell, New York. I just agree with him. In shops a great many times you hear the men that are working at piece work tell about killing the job. That is, they do so much they cut the price so they cannot make any wages. I am a great believer that the farmer increased the cost of production by not producing as much, but the consumer does not like this kind of talk. If more practiced, it however would sure help the farmer.

Michigan. W. E. BOUGHTON.

A king unlettered is a donkey crowned.—Proverbs of France.

Long Life means lowest cost

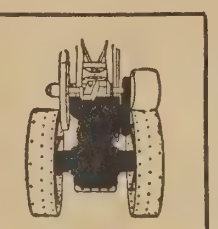


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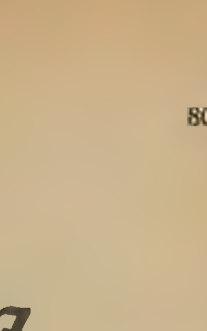
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J. N. Cornatzar, Pass. Traffic Mgr., Frisco Lines, Room 804, Frisco Bldg., St. Louis, Mo.

Two North Dakota Repeaters

HARLOW L. WALSTER, NORTH DAKOTA

REPEATERS—thrice guilty of the same offense! Sebens Bros., North Dakota, stand up and listen to the charge—thrice guilty of being either alfalfa or sweet clover seed champions at the great International Grain and Hay Show. Here's their record:

World beaters with both alfalfa seed and sweet clover seed at the International Grain and Hay Show at Chicago in 1922; alfalfa seed champions again in 1923; and almost duplicating their 1922 record in 1924 by again being rated champion sweet clover seed growers and reserve champion (or second prize) alfalfa seed growers.

The climate and soils of North Dakota provide ideal conditions for the production of high quality alfalfa and sweet clover seed—but a sunny climate and a lime-laden soil can only be legitimately advertised through performance records—records such as these made by two modest, hard working farmers.

Edw. F. and Wm. P. Sebens started their farming career on the Kankakee River bottoms in Starke County, Indiana. They and their father worked for years at dredging and tiling their bottom lands only to discover after all their hard work was done that fertilizers in the form of both potash and phosphate were needed to make the land productive. A good herd of dairy cattle was built up during the time that the farm was being drained and fertilized—but dairy cattle need alfalfa—now listen to Wm. P. Sebens' story:

"Our land in Indiana was very deficient in lime and therefore was hard to grow alfalfa on. Father sowed it at least half a dozen times but none of the fields were a real success. We always said that if we moved it would be to some place where we could grow alfalfa."

William went to Arizona in 1917 and to Texas the following winter seeking relief for bronchial trouble —says William, "I believe the thing that I liked best out there besides the climate was the alfalfa that grew there."

William and his wife came to North Dakota in the fall of 1918, leasing a farm of 160 acres for the season of 1919. His brother and his father followed him in June, 1919, when a section of slightly rolling land the silty phase of the Barnes loam in Sargent County—all well drained land—was purchased.

Their first alfalfa (20 acres) and their first sweet clover (30 acres) were sowed in the spring of 1920. The next year 15 acres more were added to the alfalfa acreage and 60 acres of sweet clover were seeded. In the fall of 1921 these young men harvested the first alfalfa and sweet clover seed that they had ever seen harvested. Their acreage of alfalfa has now been increased to about 140 acres and they annually sow 50 acres of sweet clover.

That these young men appreciate the wisdom of carefully balancing their farming system is evident from the following layout of their 1923 crops: 120 acres of alfalfa, 40 acres sweet clover, 80 acres corn, 80 acres oats and barley, 145 acres wheat, 30 acres millet, 10 acres field peas (hogged off). Balance of farm in prairie pasture.

Sebens Bros. have a herd of 40 Holstein cattle. From 150 to 200 hogs are raised each year.

In 1922 they built a special seed house for storing and cleaning seed. They clean and scarify much of the alfalfa and sweet clover seed grown by their neighbors—and in addition do a big business in the winter in cleaning up seed grain of all kinds. Most of their own wheat is thoroughly cleaned and sold for seed purposes. All other grain is fed to poultry, hogs, and cattle.



SEBENS BROTHERS OF NORTH DAKOTA

They had never seen alfalfa or sweet clover harvested for seed, until 1921, but they have won 5 prizes—four firsts and one second—on their seeds at the International in the past three years.

As You Sow, So Shall You Reap

A bright farmer, apparently disgusted with his fellow farmers' ways of doing certain things, recently made this remark: "I know of no living being that can stand being skinned twice and still be alive, except my own kind, the American farmer."

That is the manner in which he exploded after I had shown him a few outstanding reasons why cream prices were low last year.

For I showed him figures gathered by the United States Bureau of Markets that this country, at the present time, had a big surplus of butter.

The figures also showed that the United States consumed butter substitutes of various kinds to the extent of two hundred and twenty-six million pounds in 1923.

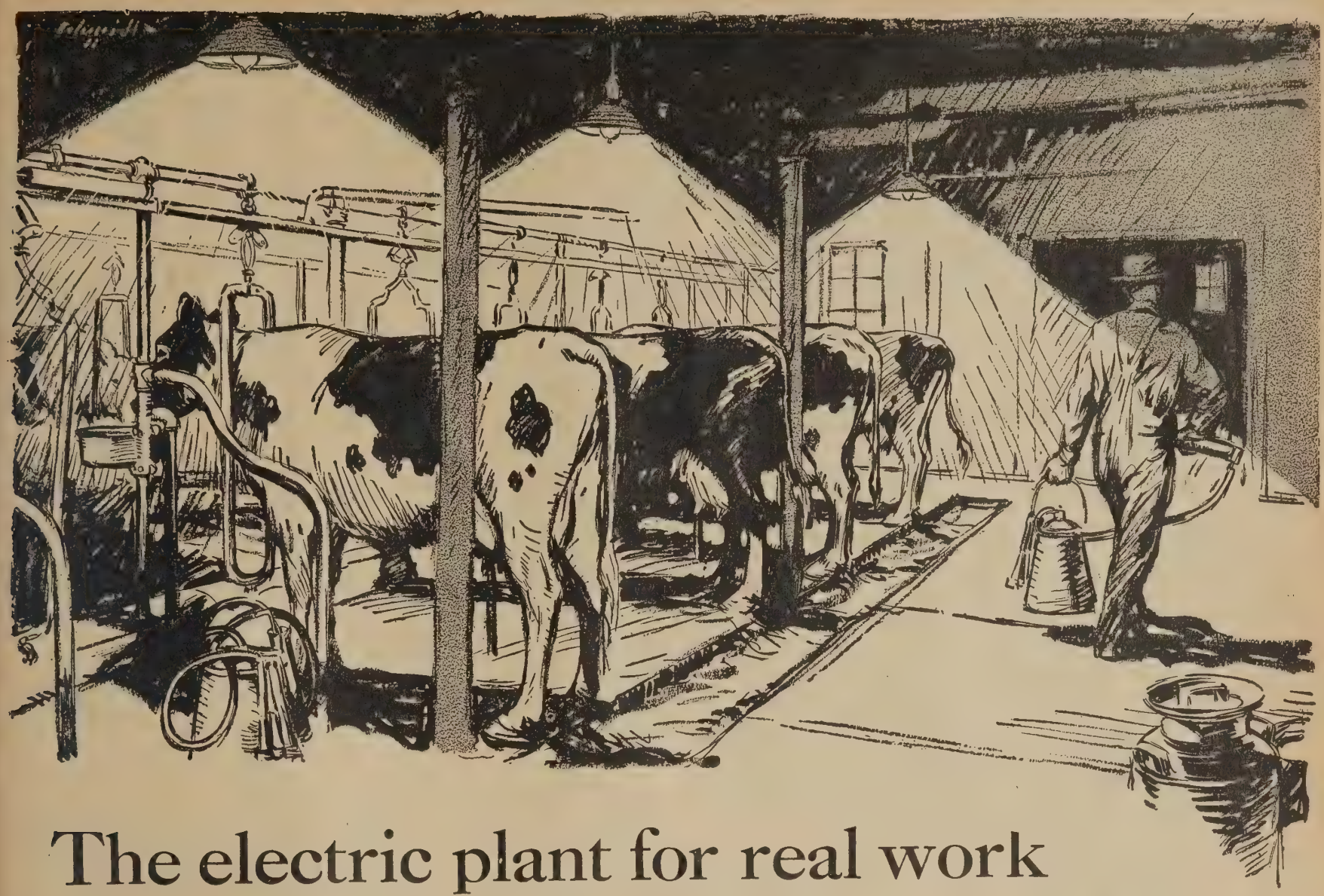
The fact that really caused my visitor to "blow up" was that it has been reliably estimated that 25% of this two hundred twenty-six million pounds of butter substitutes, or fifty-six million pounds, were *actually consumed on the farm by the farmers themselves and their families.*

What do you think about the wisdom of a dairy farmer that is trying to produce cream for butter making purposes and who will turn around and buy for his own table a substitute for his own product?

He thereby causes a surplus of his own product forcing it to go begging for a market and resulting in a 10-cent per pound lower price on his cream this year as compared with last year.

This is especially lamentable when defeat might have easily been turned to victory if the farmer "oleo" purchaser had only bought his own butter product instead of this substitute. —OLE HANSON, Manager, Orleans Equity Union Creamery, Nebraska.

Dost thou, love life? Then do not squander time, for that is the stuff life is made of.—BENJAMIN FRANKLIN.



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[*Signed*] John L. Nicholson
Birchmont Farms, Ingleside, Illinois
President, Locomotive Firebox Company, Chicago

MR. Nicholson is not only a farmer but also an engineer and inventor. So his report on the two-year record of the Kohler Automatic Power and Light Plant on his farm is expert testimony—the sort that thousands of farmers are looking for.

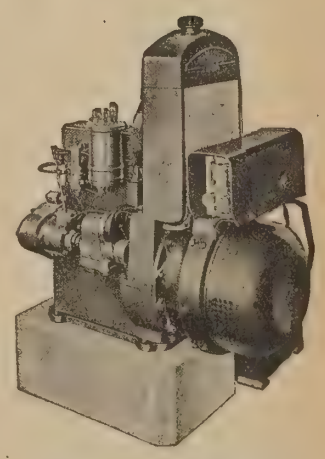
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Family Co-operation

Why does it seem that some women are always through with their work and others are behind in everything? This question is one that we discuss so often in our neighborhood probably because we have such striking examples of both kinds of women right with us.

I heard a lady say to another the other day, "I stopped over at Mrs. B.'s on my way down."

"You did? Well, could you get in?"

"I struck the wrong moment, I guess. But after stumbling over a floor full of toys and taking the ironing off of the chair, we finally settled down to a real comfortable chat. She is a good old soul, but such a house, I could not live in."

And that is as true as it can be. Few people could live happily in such a house, and still Mrs. B. is the most self sacrificing soul I know. She is always swamped with work, and always has a ready apology for not having things done when they should be done. Just this and that has kept her from doing her work, but she always winds up with a "Oh, fiddle dum dee, I don't try to keep up with it all."

In contrast to this woman, I know another household in which there are seven children. The eldest, a girl, goes to high school in a nearby town and leaves on the train early. But she has been trained to get up and get breakfast for the whole family before she leaves. At night she and her brother do the supper dishes, and that is all that is expected of her besides getting her lessons on school days. There are three other children in the grade school and three more at home. The mother of this family is the marvel of the ages that always has some time to do things that ever so many of us never seem to find time for.

One day I asked her how she managed so well, and her own story was that she felt her strength slipping, and there was no other way to do but to make the family help in carrying the family burdens. She thought about it for some time that she was forced to spend in bed, and came to the conclusion that the house and home were kept as much for the comfort and enjoyment of the children and their father and it was only right that they should help in keeping it.

"During the time I was unable to do the work I planned out two secrets which I did not let the family in on at once. One was that after I was up again every fellow in the family was going to wait on himself, and in addition to learning to help himself, every fellow, even dad, was going to have his job."

"Now that was not as easy as it sounded," she told me. "I do not want to pretend that it was an easy job for me to ask dad to put the children to bed at night, for example. At first I felt I could not ask him to help because he had been doing more than he could do himself. But as I pondered I figured out that I had been doing at least two to three hours of work every day just to help him, and was I not glad to do so and did I not feel that it was for the common good?

"After thinking about it several days I decided that he could give me one of the boys to help me at night instead of keeping both busy himself. Also I decided that he could put the smaller children to bed just as nicely when I am well as when I am sick. So I made the occasion to say one night: 'Jim, I have a lot of mending to do tonight, won't you put the youngsters to bed for me?'

"Maybe I was not so sure of myself the first time, but anyhow he looked up, hesitated a minute, and then in his wholehearted way said, 'Why sure I will.' Next time it was not so hard to ask him to help and gradually he came to see how much it relieved me and he put them to bed every night. Now he declares that the children have become more fond of him than they are of me.

"In the same way the children come in for their jobs. The smallest ones help by looking after their own books, toys, rubbers, and mittens and all their belongings that they are sure to want several times a day. It takes time for such training, especially if you have picked up after a family for years. Maybe some one has missed his coat or a pair of mittens for a while, or found that a toy has been deliberately swept out into the yard. But such drastic action does bring results.

"It is not always pleasant to stand over a child until it has finished its work before it goes out to play, but that too brings results. In the morning the eldest girl gets the breakfast and the boys have the wood and coal to bring in and clean up the ashes around the stove. But they do it and they get to school on time because they know it is expected of them.

These children do not seem to be abused because they are held so strictly to their jobs. I think they have been benefited. For the mother it has meant a slow regaining of her health; but now, that she has put her new order into her housekeeping for some years, she is an energetic, enthusiastic worker, and far more respected by her family than the one who will slave for everyone.—S. K. ORMOND.

Dessert With Apples

I still have a few apples in the cellar and I find they do nicely to vary the dessert during the winter, giving us a variation from the continual use of sauce. One of my favorite dishes is "Glace Apples" and I plan to have a pan ready whenever I know I will have the oven hot long enough to bake them.

To make them, I pare large apples about one-third of the way down and core them. Then put them in a baking pan and cover with syrup made of one cup of sugar and 1½ cups of water which has been boiled for five minutes. They are covered and cooked until tender but not out of shape. When removed from the oven I put a lump of butter in the center and sprinkle the apples generously with brown sugar. The pan is then returned to the oven until the sugar is melted. This gives the apples a bright, varnished look. Fruit may be cooked in the apples such as bananas, raisins, stewed figs, etc. Served with the jelly sauce left in the baking pan and with a little plain or whipped cream, they are fine.

An apple pudding I like very much is made as follows: Six green apples are put through the food chopper and a cup of bread crumbs, also put through the food chopper, are added. To this mixture are added 3 slightly beaten eggs, 1 cup of milk, and a little salt. The mixture is beaten enough to make it mix well and then put into a buttered baking dish and baked in a quick oven at first and then moderately for about 45 minutes. It will come out of the pudding dish nicely molded and may be served with plain or whipped cream. —S. K. ORMOND.

The Veneer Bogey

"No, I don't care to consider anything but solid oak (or walnut or mahogany"), we say to the salesman when we go to buy good furniture.

He then has a choice between arguing in favor of a veneer and being thought cheap or else of selling a veneer under the name of a solid piece because we are nearly all so under the influence of that old "solid" bogey that won't listen to anything else. It is a sign that we have not been keeping up with the times, for furniture making has changed greatly in the past few years due to the splendid research work done in our wood laboratories.

The highest grade of veneered furniture costs more to make than solid does and also lasts longer. Often, too, it is more beautiful. The top of a dresser, for instance, is made of many small pieces and layers of wood glued together. The final surface in most cases is a layer made up of several pieces of thin, highly-polished wood with the grain showing in a sort of pattern.

You may feel that so much gluing will prove a weakness to a piece of furniture but a furniture glue has recently been developed that is actually stronger than the wood itself. This glue is also waterproof and a piece of veneered wood made with it can actually be boiled without coming apart. Such a piece pulled in a vise will separate in the wood before it will part in the glued places.

I am not arguing against all solid furniture but the best types are entirely out of reach of the average pocket. Neither am I saying that all veneered furniture is good for we have plenty of cheaply-done veneering. I only want to make the point that both from the standpoint of utility and beauty, veneered furniture is a better buy than the same grade of solid.

I was looking at a mahogany dresser once. "Is this solid?" I asked the salesman just for fun.

"Oh, yes," he replied with suspicious promptness.

"Are you sure?" I caught him up, laughing. "It looks to me like a mahogany veneer on birch." I am no expert but I do know a few of the woods and their finishes.

He apologized profusely and said that people were such slaves to the word "solid" and that this article was really such a handsome piece and that the veneer really was solid ma-

(Continued on page 807)

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Miscellaneous Fashions



No. 2239—The "Boy" Frock and How to Make It. Straight-lined boyishly tailored frocks of striped worsted, plain and plaid kasha and begaline are all the go. Surely you want one too, with which to wear one of those intriguing wide belts.

Even the woman who has had little or no sewing experience can fashion for herself one of these frocks with the aid of pattern No. 2239 which comes in sizes 16 years, 36, 38, 40, and 42 inches bust measure, and these illustrations.

The two major pieces of the pattern are shown in Figure No. 1. Figure No. 2 shows the pieces joined together. Figure 3 shows the dress after finishing the front opening, setting in the sleeves and making the slashes for the pockets. Your dress is now very nearly completed save for the collar and button trimming.

For the 36-inch size, 3⅝ yards of 40-inch material with ⅝ yard 27-inch contrasting are required. Price 10c.

Fashion Magazine

An attractive wardrobe is not entirely a matter of money. It is more a matter of proper selection of styles and correct fit. With the help of our dressmaking Fashion Magazine, the woman forced to be economical in clothing expenditures can dress as well as women of means This book offers a good selection of styles which can be made inexpensively. So in ordering your pattern, we suggest that you enclose an extra 10 cents for a copy of The Fashion Magazine. Address your order to Fashion Department.

Aunt Ada's Axioms: Home life always has more zest when each member of the family has definite tasks to perform for the good of all the rest.

No wonder the sewing machine protests. How long since it's had a drop of oil?

GOLD SEAL
CONGOLEUM
GUARANTEE
SATISFACTION GUARANTEED OR YOUR MONEY BACK
REMOVE SEAL WITH DAMP CLOTH
COPYRIGHT 1917 AND 1920 CONGOLEUM COMPANY, INC.

Important Warning!

There is only one "Congoleum" and it is identified by the Gold Seal pasted on every pattern. "Congoleum" is a registered trade name and the exclusive property of Congoleum-Nairn Inc. If you want "Congoleum" be sure to look for the Gold Seal.

On the floor is shown Congoleum Rug pattern No. 323. In the 6 x 9 foot size it costs only $9.00.



"Brush the snow off, children. It can't hurt Mother's new Congoleum Rug"

Heedless little feet that love to tramp through snow and splash in puddles, that seem to pick up dirt wherever they go—bring no worries to the mistress of this kitchen.

For there's a *Gold-Seal* Congoleum Rug on the floor and she knows it can be cleaned in a moment. Just a few strokes with a damp mop and the cheerful pattern will be as bright and spotless as new.

It's the smooth, seamless surface and heavy waterproof base of Congoleum that make it so easy to clean. Dirt and dust cannot work into these rugs. Liquids and spilled things cannot stain them.

Many Beautiful Patterns

And the attractive designs are so varied that you can easily find one suited to any room in the house. There are artistic and elaborate Oriental motifs, dainty and fascinating floral effects and neat tile, mosaic and conventional patterns.

Gold-Seal Congoleum Rugs are no bother at all to lay. After a few hours they'll hug the floor without tacks, cement or fastening of any other kind.

And you'll go far before you'll find such big value at so low a price.

Popular Sizes—Low Prices

6	x 9	ft.	$ 9.00	Pattern No. 408, shown	1½	x 3	ft. $ .60
7½	x 9	ft.	11.25	below, is made in all the	3	x 3	ft. 1.40
9	x 9	ft.	13.50	sizes. The other patterns	3	x 4½	ft. 1.95
9	x 10½	ft.	15.75	illustrated are made in	3	x 6	ft. 2.50
9	x 12	ft.	18.00	the five large sizes only.			

Gold-Seal Congoleum By-the-Yard. The same flat-lying, durable, easily-cleaned material as the rugs, but made without borders for use where it is desired to cover the entire floor. Lies flat without any fastening.

Two-yard width —**85c** per square yard
Three-yard width —**95c** per square yard

Owing to freight rates, prices in the South and west of the Mississippi are higher than those quoted.

CONGOLEUM-NAIRN INC.

Philadelphia New York Boston Chicago Kansas City San Francisco
Atlanta Minneapolis Dallas Pittsburgh New Orleans
London Paris Rio de Janeiro

In Canada—Congoleum Canada Limited, Montreal

Free Booklet

"*Beautify your Home with Gold-Seal Congoleum Art-Rugs*," an interesting illustrated booklet, shows all the beautiful patterns in their full colors. A copy will gladly be sent free on request.



Pattern No. 518

Pattern No. 408



Pattern No. 534

Pattern No. 396

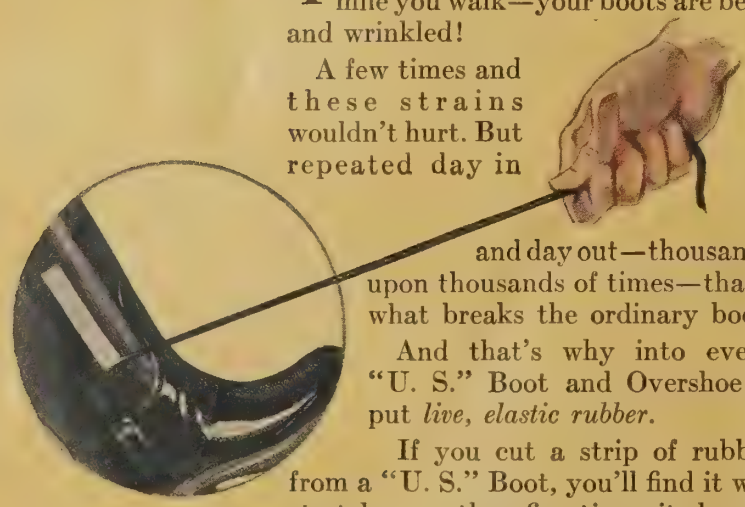
Gold Seal CONGOLEUM RUGS



It's a Brute *for Wear!*

Two facts about "U.S." it will pay you to know ~ ~ ~ ~

TWO thousand times for every single mile you walk—your boots are bent and wrinkled!



A few times and these strains wouldn't hurt. But repeated day in and day out—thousands upon thousands of times—that's what breaks the ordinary boot.

And that's why into every "U. S." Boot and Overshoe is put *live, elastic rubber.*

If you cut a strip of rubber from a "U. S." Boot, you'll find it will stretch more than five times its length without breaking—and snap back into shape like an elastic band. This live rubber *stays* flexible—and waterproof.

What's more, in this live rubber are anchored layer on layer of tough fabric reinforcements. Where the hardest strains come, there are *as many as eleven* separate layers of rubber and fabric. They reduce chances of breaking to a minimum.

As a result of these important facts, farmers in every section of the country are finding "U. S." Boots and Overshoes a big economy.

"U. S." Boots and Overshoes wear longer because they're *built* to wear longer.

It will pay you to ask for "U. S."

Other "U. S." Rubber Footwear

You'll find every type of rubber footwear in the big "U. S." line. There's the Walrus, the famous all-rubber overshoe—the "U. S." lace Bootee, a rubber workshoe for fall and spring—"U. S." Arctics and Rubbers—all styles and sizes for the whole family. Look for the "U. S." Trade Mark whenever you buy—the honor mark of the largest rubber organization in the world.

United States Rubber Company



"U.S." *Boots Walrus Arctics Rubbers*

Trade Mark

hogany, etc., and I didn't really blame him much.

We buyers almost force salespeople to do such things by our attitude. I like to buy at a place that I know to be thoroughly honest and up-to-date and get them to explain to me why certain of my old prejudices are no longer true or in style. A good dealer knows these things but he often does not dare to tell us.

Keep these ideas in mind in August for you will find if you live near a city that that is one of the months when big dealers are having their sales and a very great saving can often be made. In buying good articles it is important that you either know furniture yourself or that you know your dealer's reputation; otherwise you may get a low-priced piece out of a grade to correspond.—LUCY THOMPSON.

Hot Cakes for Cold Mornings

On these cold mornings we like hot cakes for breakfast and because I can never manage to get up until the very last minute, I have learned to apply "one minute cake methods" to waffles and hot cakes instead of making them the old way.

First thing I do is to get my waffle iron on to get hot. Then I fix the coffee and proceed to get my waffle mixture ready. By the time that my iron is hot I am ready to start.

For mixing waffles I heat 1¾ cups of milk and put into it a level teaspoon of butter. This melts in the hot milk. Then in a mixing bowl I put 2 cups of flour, 4 teaspoons baking powder, 1 teaspoon salt, two eggs, pour the hot milk over it and beat the mixture one minute with the egg beater. I have made this recipe so often that it takes me just about two minutes to mix the batter. When the batter is ready it takes waffles just about one minute to cook if the griddle is hot enough, and the batter is not too stiff.

Hot griddle cakes are beaten up in the same way and I vary the recipe only with different flour like graham or buckwheat. In each case I use some white flour too, about one-half. I always use sour milk for them and do not heat it. For two cups of sour milk I use 1 egg, ½ teaspoon soda, ½ teaspoon baking powder, and flour enough to make the batter slightly stiff. The amount of flour varies a little with the water content of the milk. It is usually something less than two cups.

I do not know of anything that is appreciated more than hot cakes or waffles on a cold morning. They put me in the right spirit for work.—S. K. ORMOND.

Gland Treatments

Whenever I pick up a paper that offers gland treatments I want to cry out, "No" with all my heart. Ninety-nine times out of a hundred such advertisers are fakes and they get rich on the credulity of their patients.

Some of these are offers to treat the gland that causes goiter and on that subject I could almost write a layman's book for I live in a goiter belt where the subject is in constant agitation by doctors, by those afflicted, and by those who want to escape being afflicted. The last named, by the way, is usually a very simple thing to do.

Reason tells us that it is impossible for a man who has never seen our particular case and who, worst of all, has never studied the subject scientifically to sit up in some city office hundreds of miles away and bottle up something that will cure us. These quacks when investigated nearly all prove to be clever persons without a scrap of conscience or else are ignoramuses. We do not want to hand our health over to either.

Some even go so far as to offer gland treatments to old persons with a view of making them young again. Maybe this can be done sometime but not now; it belongs in the distant future when men will have learned to turn the base metals into gold—a thing that has occupied their minds ever since Ponce de Leon sought the spring whose water would give him eternal youth.—LUCY THOMPSON.

Never Say Die

A woman of 75 visited me last week. She was as spry as a cricket and more full of ideas than most of the women half her age I've seen lately.

"I guess I live a good deal in the past," she told me, "so you'll have to excuse me if that is what I talk most about. I try not to wear people out talking about the children all the time like most folks do but it's hard to keep off the subject.

"You say that Jones boy is not getting along at school?" she queried. "I just wish I could see the teacher a few minutes. Mightn't work at all but it just reminds me of when Andy"—her youngest—"was in the fifth grade. Every day or so he would come home all upset and say the teacher told him he wasn't going to pass. He finally got so he could hardly eat or do anything, always thinking how everybody was going to pass but him.

"One day I just put on my bonnet and went over to see the teacher—an awful nice girl she was and doing her very best—and she said to me first thing, 'I'm afraid Andy's not going to pass.' And I said, 'Well, it's only about half way to the end of the term. How would it be if you would just keep quiet about not passing and act like he was going to pass with the rest of the children. I'll see what I can do at home, too.'

"Well, it was funny to see the way he braced up. Maybe she thought I helped him at home but lawsy, I could no more do his arithmetic than nothing nor much of anything else. But I did say to him once in a while, 'You must be getting along all right now, Andy; I don't hear any more talk about not passing. You work hard and you'll get through'; and he buckled right in and took courage and we never did have any more trouble about his schooling."

It reminded me of two families I knew. Let's call them the Martins and the Reeds, just to give them names. This is nothing made up but an actual experience; in fact, the Martins are related to me. They are awfully nice people but the easily discouraged sort, while the Reeds are the kind who never look at an obstacle as anything to stop them but only something to climb over.

The families live near together and are good friends in spite of being so different. How often have I heard gentle Mrs. Martin say of one of the children, "Oh, no, dear; no Martin could really do that. I wouldn't try. It's all well enough for the Reeds." If a Reed child had proposed the same thing to his mother she would either have told him to go ahead and try or else would have showed him that, while it was not practical, he probably could do it as well as the next. Conceit may sometimes result from such methods but just plain confidence is more likely to.

To think that a good mother would ever sow the seeds of discouragement and defeat in the mind of a young child is past belief. She may be sure in her own mind that the enterprise will fail but how much better either to put in some help at the right time or else tactfully turn the child's interest in another direction.

I think that it was Dickens' Barnaby Rudge who had a raven. It could say just one thing and this it was forever saying, in season and out—"Never say die." It's not a bad slogan.—LUCY THOMPSON.

Stains

The blackest mildew stains can be removed from white goods by boiling in water to which two tablespoons of peroxide have been added for each quart of water. It will remove almost any other stain as well.

If water stains your canton crepe dress, rub it gently between your hands so that the friction will remove the stain; then press.

Do not use soap to wash a raincoat; a solution of one pound of alum to three gallons of water is a better cleaner for it.—The Designer.

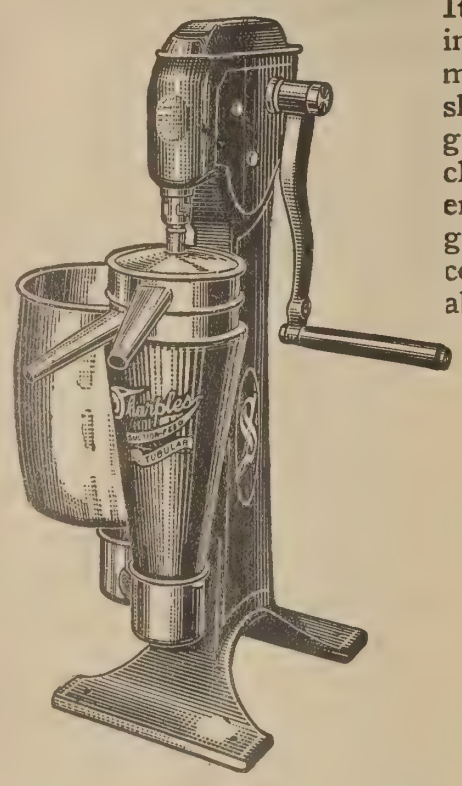




Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

The Sharples 1925 "Quiescent Current" Separator

1925 Quiescent Current



It cuts in thirds the driving power needed. It more than doubles the skimming capacity. It gives extraordinarily clean skimming on either warm or cold milk. It gives a smooth, even commercial or churnable cream.

Made in Two Sizes

700 lbs. per hour, turns with a finger

$100

1300 lbs. per hour, turns with a hand

$165

Questions Answerea

Yes—it looks and wears like a Sharples. Over 1,000,000 sold and running. Hundreds of these have stood up under twenty years of constant use.

Yes—the bowl is different and skims 700 lbs. or 1300 lbs. easier than it formerly skimmed half that amount.

Yes—the quiescent current is something new in Cream Separators. No counter current is the secret—a "one way" proposition.

Yes—it is a little more trouble to clean than our regular hollow bowl separators, of which we still make thousands, but not a quarter as much trouble as a disc bowl. Thoroughly scrub in two minutes, thoroughly rinse in 30 seconds.

Yes—it will give more butter fat, because it always skims clean whether turned fast or slow. Only a Sharples does this.

Yes—they are sold on trial, and must please you. Order on that condition. We are willing to take the risk, for we know it will work to your satisfaction.

Yes—only two sizes of quiescent current separators—700 lbs. per hour, price $100; and the 1300 lbs. per hour, price $165.

The very last word on Cream Separators

The Sharples Separator Company, WEST CHESTER PENNA.

Branch Offices: Chicago, Ill. San Francisco, Calif. Toronto, Canada

We make a complete line of Tubular Separators from 200 lbs. per hour capacity to 10,000 lbs. per hour capacity. Send for printed matter. Exclusive agencies in unoccupied territories to good working dealers

DAIRY MARKET NEWS

Butter Markets

(Report by U. S. Dept. of Agr.)

Butter markets were nervous and unsettled during week ending December 27th. Trade was irregular and never more than fair. Toward the close, however, with receipts retarded by severe weather in producing sections, a steadier tone developed. Storage withdrawals continue large, indicating as do other factors an encouraging maintenance of consumption. Production which has been recently showing increases was apparently affected by cold weather. Foreign markets were weaker and lower.

The average wholesale prices on 92-score butter for the week ending Dec. 27, 1924, for the week previous and for the corresponding week a year ago were as follows:

	Ave. for the week ending Dec. 27 1924	Dec. 20 1924	Dec. 27 1923
	Cts.	Cts.	Cts.
New York	43.9	44.5	55.0
Chicago	41.0	41.0	54.0
Philadelphia	44.8	45.2	55.4
Boston	44.0	43.5	54.0
San Francisco	48.7	43.3	48.0

The receipts of butter at these markets were 8,384,563 lbs. for the week as compared with 8,900,237 lbs. for last week and 9,939,369 lbs. a year ago.

December Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers for 3.5% milk delivered at factories during December is based on reports made by 102 condensed and evaporated milk firms.

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.11	$2.11
Middle Atlantic*	8	1.74—2.63	2.13
E. No. Central	68	1.48—2.40	1.85
W. No. Central	4	1.66—1.95	1.80
North Western	12	1.62—1.80	1.75
South Western	9	1.62—1.95	1.70
United States	102	1.48—2.63	1.85

*Sixty-nine additional factories reported prices to be based in part on the current month's wholesale butter quotations. Twenty-three factories reported prices not determined, and 12 reported plants closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for December:

	Range	Ave.
Condensed, per case	$5.20— 6.35	$5.75
Condensed, per cwt.	6.90—10.25	9.40
Evaporated, per case	3.25— 4.50	3.87
Evaporated, per cwt.	7.50—12.40	9.22
Condensed skim, per cwt.	4.75— 8.00	6.01
Evaporated skim, per cwt.	2.75— 7.60	4.11

Cheese Markets

(Report by U. S. Dept. of Agr.)

Cheese markets were firmer at advances averaging ½ cent over previous week. Trade quiet as expected during the holidays. Receipts continued to decrease and the cold weather in Wisconsin hindered shipments and resulted in additional firmness. Storage reductions in the 26 cities which have been averaging better than two million pounds a week since December 1, regarded as indicating improvement in statistical situation.

The average wholesale prices on American cheese, style Twins, for the week ending Dec. 27, 1924, for the corresponding week a year ago, and for the previous week were as follows:

	Ave. for the week ending Dec. 27 1924	Dec. 20 1924	Dec. 27 1923
	Cts.	Cts.	Cts.
New York	22.7	22.7	22.5
Chicago	21.8	21.4	21.6
Boston	22.7	22.7	24.2
San Francisco	20.0	19.2	21.5
Wisconsin Board	21.5	21.0	21.3

The receipts of cheese at these markets were 2,277,340 lbs. for the week as compared with 3,487,264 lbs. last week and 2,448,007 lbs a year ago.

November Powdered Milk

(Report by U. S. Dept. of Agriculture)

Producers supplying powdered milk plants during November received from $1.69 to $2.5 a hundred for 3.5% milk. These plants pa from 15c to 25c a hundred for skimmilk an from 6c to 20c a hundred for buttermilk.

During November powdered whole milk sol for 56c to 60c per pound as case goods an for 24c to 30c per pound in barrels. Powdere skimmilk sold for 40c to 44c per pound case goods and for 4c to 12c a pound in ba rels. Dried buttermilk sold for 3.5c to 1 a pound in barrels.

MILWAUKEE, Wis., Jan. 5—Butter—Creamery—Fresh—Extras (tubs), 42c; stan ards (centralized), 41c; extra firsts, 39@39½c firsts, 39@40c; seconds 34@38c; ladles, 27 28c; packing stock, No. 1, 24@25c; off good 15@20c.

Cheese—American—Full cream—Twins, 22 @23c; Daisies, single, 22@22½c; double, 22½ 23c; Young Americas, 23@23½c; Longhorn 23@23½c; squares, 24@24½c; 5-lb. loaves American, 32c; pimento, 34c; Brick, 32c Swiss, 42c; special makes, Brick, fancy, 19 20c; Limburger, 20@21c; Swiss, blocks, @25c; loaf, 28@35c; imported, Swiss (tubs 46@48c.

Eggs—Fresh gathered firsts (new cases candled, 52@53c; ordinary firsts (standar cases) candled, 49@50c; miscellaneous lot shippers' cases returned, candled, 46@48c; se onds and dirties, candled, 32@33c; check candled, 30@32c; refrigerator firsts, April 4 @41c; May, 40@40½c.

CHICAGO, Jan. 6—Butter markets we steady to easier with New York ½c lower a Philadelphia unchanged to 1c lower. The was more pressure to sell, due to somewh larger receipts. Cheese prices were somewh firmer in all markets.

Fresh eggs showed little change in pric Receipts were 1,698 cases. Sales of 28 cars storage packed firsts for April delivery we made at 29⅞@30½c.

NEW YORK, Jan. 5—Butter—Easy; r ceipts, 4,998 tubs; fresh supply, 62,103 tub creamery extras, 44¼@44½c; specials, 45½c.

Eggs—Firm; receipts, 7,428 cases; fre supply, 39,573 cases; white, fancy, 69@70 fresh firsts, 59@67c; western white, 43@65

FOND DU LAC, Wis., Jan. 2—Averag cheese prices (majority of sales) f. o. b. shi ping point: Single Daisies, 23c; double Dai ies, 22¾c; Longhorns, 23c; square prints, 24

PLYMOUTH, Wis.—Cheese prices esta lished on Cheese Exchange Jan. 3: Sing Daisies, 23c.

Aunt Ada's Axioms: If your can dle seems to be burning at both ends blow out the end that gives the mos smoke and the least light.

Carload Prices of Hay, Straw, and Feed, Dec. 27, 1924

(Report by U. S. Department of Agriculture)

Commodity	Boston	New York	Philadelphia	Pittsburg	Baltimore	Atlanta	New Orleans	Memphis	Cincinnati	Chicago	Minneapolis	St. Louis	Omaha	Kansas City	San Francisco
Hay and Straw															
No. 1 Timothy	26 50	27 00	---	.....	21 00	26 00	27 00	24 50	18 50	23 00	18 00	24 50	....	18 00	
No. 1 Clover, mixed	20 00	.....	---	.....	17 50	.....	30 00	....	17 50	.....	16 50	.....	.....	15 50	..
No. 1 Clover	.....	24 50	....	.....	.....	.....	.....	.....	18 50	18 00	.....	21 00	...	17 00	..
No. 1 Alfalfa	....	30 50	.....	.....		35 00	31 00	30 00	28 00	23 00	24 00	..	17 50	23 50	25
Standard Alfalfa		25 50		.....		33 00	29 00	29 00	.....	18 00	20 00	.. ..	16 50	20 75	24
No. 2 Alfalfa		23 00	.....	.....	.....	29 00	.....	24 00	24 00	14 00	17 00	18 00	14 50	17 50	23
Oat Straw	13 00	15 00	16 00	.....	13 50	....	.....	.....	11 00	11 00	9 00	.....	8 00	.....	...
Feed—Bagged															
Wheat Bran	....														
Spring	38 25	.....	38 50	.....	37 00	39 50	.....	.....	.....	34 00	31 25	.....	.....	30 50	44
Soft Winter	40 00	.....	39 50	....	38 00	40 00	.....	34 50	36 50	.....	.....	.....	.....	.....	...
Hard Winter	38 25	.....	39 00	.....	...	39 50	.....	34 00	35 50	34 00	.....	32 00	30 50	30 50	...
Wheat Middlings		.....													
Spring (Standard)	40 50	....	40 00	.....	38 50	.....	.....	.....	38 00	35 00	32 50	.....	.....	.....	...
Soft Winter	46 75	.....	46 00	.....	38 00	46 00	.....	.....	40 00	.....	.....	.....	.....	35 00	43
Hard Winter	.....	.....	...	.....	.....	45 00	.....	.....	40 00	.....	.....	37 00	35 00	35 00	..
Wheat Millrun	.....	.....	.....	.....	.....	42 00	.....	.....	.....	.....	32 50	.....	.....	32 50	43
Rye Middlings	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30 00	.....	.....	.....	..
High Protein Meals															
Linseed	51 00		50 75	.....	.....	.....	.....	.....	49 50	48 00	47 50	49 50	51 50		48
Cottonseed (41%)	47 25	.....	47 00	.....	.....	.....	.....	39 50	43 50	43 50	46 00	41 50	.....	.....	...
Cottonseed (36%)	43 75	.....	44 50	.....	44 00	36 00	.....	37 00	41 50	42 50	44 00	39 00	.....	.....	...
Tankage (60%)	.....	.....	.....	.....	.....	.....	.....	.....	.....	60 00	60 00	60 00	60 00	60 00	...
No. 1 Alfalfa Meal	.....	.....	.....	.....	32 00	.....	.....	28 00	29 00	28 00	.....	27 50	27 00	24 00	30
Gluten feed	46 95	.....	46 90	.....	46 50	.....	.....	.....	43 70	40 80	44 00	.....	.....	.....	...
Hominy feed (white)	54 25	.....	54 75	.....	48 00	50 00	.....	.....	50 50	48 50	.....	46 00	48 00	.....	...
Hominy feed (y'llow)	53 50	.....	53 25	.....	47 50	50 00	.....	.....	50 50	48 50	48 00	.....	48 00	..	...
Ground barley	.....	.....	.....	.....	.....	.....	.....	.....	45 00	.....	.....	.....	.....	.....	55
Dried Beet pulp	.....	.....	39 00	....	38 00	.....	.....	.....	.....	.....	32 00	.....	.....	.....	37



$696.00 PROFIT AT A COST OF ONLY $28.00

THINK of it! Simply adding Murphy's Minerals to the ration increased Albert Dunham's profits $696.00. The same cows, the same general ration, the same care—the only difference was the $28.00 worth of Murphy's Minerals fed instead of the bone meal used the year before.

The figures are here. Sworn to before a notary public. Read for yourself how Murphy's Minerals increased the butterfat yield 1451.7 lbs. for the herd. An average *gain* per cow of 90.7 lbs. The best cow showed *$87.42 more profit.* Even the poorest *gained an extra profit of $10.98.*

Start feeding Murphy's Minerals now! See what a big difference they will make in your milk check! No matter what your ration, Murphy's makes it better. But the gain in butterfat yield is only half the benefit you get from Murphy's Minerals. It improves the general condition of your whole herd—they will be stronger, healthier. Your calves will be big framed, robust, full of vitality—the kind every dairyman is proud to own.

Dunham Jersey Farm

ALBERT DUNHAM, Owner
Pelican Rapids, Minn. December 22, 1924.

Murphy Products Company.
Delavan, Wis.

Gentlemen:

I am enclosing report on my herd before and after using your K-O Mineral feed.

I started using your feed just before the 1923-24 testing year. Milk yield almost immediately increased and steadily gained until my official records showed an increase of 1451.7 lbs. more butterfat over last year for the 16 cows.

This is an average gain of 90.7 lbs. butterfat. My increased profits were $696.14. The Murphy's Minerals cost me only $28.00. My best cow showed $87.42 extra profit and the cow with lowest gain $10.98.

My ration both years consisted of alfalfa, clover, silage, and grain concentrates. Care and management were the same. The only difference was the addition of Murphy's Minerals. In 1922-23 I fed bone meal without any marked improvement.

Best of all, the increased health of my herd and calves due to your minerals is worth as much as the butterfat gain.

Signed Albert Dunham

Subscribed and sworn
before me a Notary Public
O. P. Sether
Otter Tail County, Minn.

MURPHY'S MINERALS

What the Official Records Show

Name of Cow	1922-23 Before Feeding K-O Pounds Butter Fat	1923-24 After Feeding K-O Pounds Butter Fat	GAIN The Result of Feeding K-O Pounds Butter Fat
May	281.6	465.2	183.6
Brindle	232	411.4	178.1
Lady		366.3	145.7
		393.5	124.6
		344.	119.6
		393.7	112.
		325.5	103.2
		284.2	97.5
		332.9	91.5
		366.1	

1451.7 lbs. more butterfat by adding Murphy's Minerals. Extra profit $696.00 at cost of only $28.00.

It stands SUPREME

MURPHY'S FORMULA MINERAL FEED TRADE MARK COMPLETES THE RATION



Don't confuse Murphy's Minerals with ordinary mineral mixture. There is no other mineral feed like Murphy's. Thousands of farmer feeding tests have proved Murphy's gives the biggest gains at least expense.

More Digestible

The value of a mineral feed depends entirely on its digestibility and the way the minerals are proportioned to produce a perfectly balanced mineral feed. Of all mineral feeds made, Murphy's is the most digestible. Your live stock gets more good, greater health and body building values from Murphy's.

Murphy's Minerals contain no agricultural limestone, no ground rock phosphate, no drugs or other useless indigestible materials such as form the bulk of the average mineral mixture, and are neither safe nor profitable.

Murphy's Mineral Feeds are scientifically balanced in just the right proportion so that every animal gets exactly the correct amount of each mineral its system needs. That's why Murphy's Minerals make such sensational records wherever fed and, judged by results, are the cheapest.

Turn Losses Into Profits

Even with the best of feed and care the farmer makes but little profit on each individual animal. A small amount of Murphy's Mineral Feeds added to your ration often changes your unprofitable animals into money makers.

Hundreds of farmers have saved cows from going to the canners by adding Murphy's to the ration. Minerals were what their systems craved. They were "mineral starved" from high pressure concentrates and low mineral roughages. Murphy's Mineral Feed acts directly to prevent goitre and depraved appetite and reduce abortion and sterility. It makes vigorous, robust cows that breed regularly and drop healthy, disease resisting calves.

FREE BOOK—AMAZING MINERAL FACTS

Mineral feeding is thousands of years old. The old "Salt Licks" that wild animals traveled miles to reach, were in reality *simon pure mineral licks*—uncovered prehistoric deposits of lime, seaweed, sea salt and other organic minerals. Mineral feeding is simply following nature's oldest treatment. Send today and get the free splendidly illustrated book "The True Value of Minerals." Read the full details of Mr. Dunham's test. See how minerals can double your profits, save your animals. Increase milk yield, decrease expense. It is free. Write for your copy. Simply address MURPHY PRODUCTS CO., Dept. 101, DELAVAN, WIS.

MURPHY PRODUCTS CO., Delavan, Wis., Dept. 101

Please send me your attractively illustrated book describing Mineral Feeds and Mineral Feeding. I am interested in getting more milk and having a healthier herd.

Name _____

Address _____



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Danny Names His Calf

Daniel Dare was up against a problem. Now, problems were nothing new to Danny, and he at once set to work to solve this one.

"What's a good name for my calf?" He asked this question of nearly everyone whom he saw during the days following the eventful Christmas which had been full of wonderful surprises and finally ended with this most marvelous present, a pure-bred heifer calf, born on Christmas Day and out of a 1,000-lb. cow in his father's herd.

Danny put his question to brother Tom first—and Tom had suggested Dainty Daisy, a name with no particular application or meaning. So Danny asked his father. "Well, her mother's name is Ruth of Daredale. Why don't you call her Ruth's Christmas Gift or Ruth's Wonder Girl?" For a short time these names appealed to Danny. At least they had some meaning. But he was not satisfied, so he asked his mother. Right away she suggested "Star of Bethlehem". Danny remembered that there was a white splash upon her face, and this name struck his fancy. Bound to get as many suggestions as possible, so as to have plenty to choose from, he questioned his sister, Mary.

"I'd call her Tar Baby, because she's so black; and his older sister suggested "Merry Christmas" and "Christmas Queen". Danny thought these all good names. He made a list of all the names given him as he got them. Besides members of his own family he asked several neighbor boys. He also wrote to the Junior Editor of Hoard's Dairyman and secured his help. When a good name came to his own mind, he made a note of it.

A week passed—the list grew. There came at last the day of reckoning. Accordingly, one evening Danny wrestled with the problem in earnest. He read over his list: Star of Bethlehem, Christmas Queen, Merry Christmas, Ruth's Wonder Girl, Tar Baby, Ruth's Pride, Bethlehem Babe, Bouncing Betty, Bountiful Bessie of Daredale, Beautiful Babe, Dame Fortune's Hope, Faithful Fannie, Fairy Queen, Lovely Laura, Lotta Milk, Danny's Desire, Milk Maid, Victory Queen, Princess Mary.

Danny wanted a name with some significance for his calf. He felt the name should be distinctive and express either a characteristic of the animal or a feeling on the part of her owner. At the same time alliteration, or two words beginning with the same letter, was to be considered.

After reading the list he put a check mark after several names that appealed to him the most—Star of Bethlehem, Victory Queen, Bethlehem Babe, Merry Christmas, and Ruth's Pride. He considered each of these carefully, scratching them out one by one as he eliminated. With but two names left he decided to have the other members of the family vote—just for fun—on the most desirable.

The result of the election, so to speak, couldn't have been more satisfactory to Danny. What do you suppose was the outcome?

Bethlehem Babe won the day. Wasn't the Babe of Bethlehem born in a manger on Christmas Day many hundred years before? In that Babe rested faith, hope, pride, love. What could be a more appropriate name? So without further ceremony, the calf was christened Bethlehem Babe. Danny never told who was the author of this name.



NEBRASKA'S CHAMPION DEMONSTRATORS

Arthur Reiter (left) and Aldon Colbert gave a good grain grading demonstration at the Third National Club Congress, Chicago.

Using the Junior Page

While afield in clubland this summer we met a very fine family of Hoard's Dairyman Juniors, six boys and girls and their father and mother, Mr. and Mrs. L. A. Welles. Three members of this family—Jeffrey, Bessie, and Isabel, gave a most interesting demonstration on the "Selection, Fitting, and Feeding of a Dairy Animal". In showing the three wedges on a dairy cow they used, in a unique manner, three triangles which they had constructed from lath. After the demonstration they said that they got this idea from the article entitled, "Judging Dairy Cows" which appeared on the Junior Page of Hoard's Dairyman this summer, and that a large part of the information which they used in their demonstration was obtained from the Junior Page. Jeffrey and his two sisters are Wisconsin calf club members. They like Jerseys the best. In training their Jersey heifer to lead they even led her up the steps and through the house.



Bessie Welles was one of the winners in an essay contest on the subject, "Care of Cream on the Farm". She is here seen demonstrating one wedge on a dairy cow.

Jeffrey later earned a trip to the State Fair by ushering in the grand stand. Bessie won honors in an essay contest this summer in which 255 boys and girls took part. Her essay on the subject, "Care of Cream on the Farm", captured third place. Here are some of the "high points" in her essay:

First, get a herd of cows producing at least 300 pounds of butterfat each yearly, of the breed of your choice. If your cows are producing no more than enough to pay for their board, you won't have enough enthusiasm to take care of anything as it should be.

Second, have your barn clean, sweet, and well ventilated. See that your separator house is clean and well ventilated; and all milking utensils should be sterilized each day. The separator should be washed after each skimming; but if not, put a few quarts of clean water through before the second skimming.

Third, see that your milkers are clean and that they do not handle or feed silage at milking time or shortly before. Separate the milk as soon as possible after milking. As soon as you are through separating, the cream should be placed in cold water, away from all odors, where there is plenty of fresh air. It should be stirred constantly until cooled down to 60 degrees and kept in that condition until the next milking at which time it should be poured into the container of previous skimmings and this receptacle cleansed for the next skimming.

Fourth, with the best care, the cream should be delivered to the creamery every third day, oftener is better. In hot weather the can of cream should be well protected from the heat and dust. In the winter it should be protected from the cold.



THE DAIRY COW IS ANGULAR

This demonstration team, composed of Jeffrey (left), Bessie, and Isabel Welles, used these "angles" to demonstrate the "wedges" of a good dairy cow, an idea suggested by an article on the Junior Page of Hoard's Dairyman.

"Our Teacher"

(Boys and girls, young and old, will find in the following article, written by Leo S. Bohrnstedt, a grown-up from Wisconsin, something to think about. Have we fully appreciated what our school teachers mean to us and the influence they have upon our lives?)

We may think back to our early country school days and find there the foundations laid by God-loving, self-sacrificing teachers who have served us well and upon which foundations we are allowed to build our lives' successes or failures. She is with us, our country teacher, in our classes or our club work, in our games or our meditations; and many times the influences of a lifetime are founded upon that personal touch. She is part of our country life and, if well fitted for her post, gives us many advantages not to be gained in our cities.

Has the little old red schoolhouse served its day? Perhaps it has, in some places. But has its guardian? No. I believe the future farmer and his helpmate should be taught their three R's among the associations of the countryside and under the supervision of a well-trained teacher co-operating with his parents.

Let's make her a lot more pleasant and co-operate with her in the many ways we can.



BOOSTING FOR THE HOARD'S DAIRYMAN JUNIORS' CLUB

Left to right: Mrs. L. A. Welles, Jeffrey (15), Bessie (14), Isabel (12), Florence (10), Blanche (8), Chester (6), L. A. Welles.

Making a Good Club Record

Melvin Hartman a member of the Washtenaw County, Michigan, Jersey Calf Club, and a Hoard's Dairyman Junior, started club work at the age of nine years. The first year, 1922, he fitted and showed a grade Jersey heifer at the county fair.

That fall he purchased a pure-bred Jersey calf for fifty dollars. He named her Ixis Majesty Pretty. A year later he showed her at the county fair, winning grand champion club female and reserve champion ribbon. At the Michigan State Fair he won first in the club class, grand champion club female, and fifth in the open class. In 1924 he won second at the county fair.



MELVIN HARTMAN AND HIS CHAMPION JERSEY CALF

Melvin has been secretary of his club for the last two years, has attended all club meetings and taken an active part in all calf club activities.

Aside from his interest in calf club work Melvin has some very good musical talents as he plays the piano exceptionally well for a boy of his age.

Melvin began club work under the direction of A. L. Watt, former club agent in Washtenaw County. He is now carrying on his project under the supervision of Frank C. Essick, successor to Mr. Watt.

In fitting his champion calf, Melvin fed ground oats, alfalfa hay, and

(Continued on next page)

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button (showing the head of your favorite dairy breed), and a handsome creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now.

oil meal. Mr. Watt declared that Melvin had the best cared for calf in the county. Melvin says that he would rather take care of his Jersey calf than most anything else. Such interest as the above makes Melvin an outstanding calf club member.

Our Weekly Review

(Each week, boys and girls, in this column we want to give you a little review of Hoard's Dairyman for the previous week. Here is where we have a chance to talk it over. The Junior Editor would like your opinion on this column.)

Think of it! Use of a pure-bred sire on the scrubbiest of scrub cows doubled both milk and fat production in their granddaughters. Truly this is a wonderful and significant milestone in dairy history. "The Arkansas experiment" carried on by the Iowa Experiment Station demonstrated that with only a small amount of money, a little persistence, a good dairy bull of moderate price, and the ability to properly feed and care for cows—a farmer can build up a dairy herd of money makers in a few short years. Read all about it, and other good articles in the January 2 issue of Hoard's Dairyman.

How will good care affect milk production? Four-year-old scrub cows taken from Arkansas where they had never seen a pure-bred sire or had any care but "rustling" produced an average of 3,084.6 lbs. milk and 149.24 lbs. butterfat. Given proper care and attention they increased production until as seven-year-olds they gave 4,907.7 lbs. milk and 229.9 lbs. fat, an increase of almost 50 per cent.

Give the increase in fat production brought about by the use of pure-bred sires? The average fat production of the Holstein scrub cow was 183 lbs. Her granddaughter produced 230 lbs. fat. The Guernsey scrub gave 193 lbs. while her granddaughter jumped to 486 lbs. A Jersey sire increased the scrub's production from 178 lbs. to 323 lbs. in the granddaughter.

How has Frank Coverdale attained success with sweet clover? In 28 years this Iowa farmer has increased his paid up holdings from 80 to 760 acres by close observation, seeking and applying improved knowledge, and by patience. He observed that sweet clover was a hardy plant, produced an abundant growth, stood drought well, and was not killed out by severe winters. He tried out its feeding qualities successfully. His rotation is corn, oats, sweet clover. He uses lime liberally, and seeds his sweet clover in the spring, using from 12 to 15 lbs. of the biennial white scarified seed per acre to 2 bushels of oats. He uses his clover as a soil builder, live stock feed, and honey producer. (See article "Twenty-eight Years With Sweet Clover".)

How has Emil Dreger kept up fertility on his fields? The rotation of crops, growing of clover and alfalfa, turning under second crops of these legumes, returning to the land all barnyard manure, the use of liberal amounts of bedding to absorb the liquid manure are practices which he has followed successfully. (See article, "Finding Wealth on a Dairy Farm".)

Describe Nebraska's pure-bred sire campaign. Starting out with pure-bred dairy bulls of the Holstein, Jersey, and Ayrshire breeds valued at about $6,000, a special train on the C. B. & Q. railway under the additional direction of the Nebraska Dairy Development Society and the College of Agriculture returned with as many scrubs. An even exchange was made for each. Pure-breds were donated by leading breeders. Scrubs were sold for beef and the proceeds pro-rated among the givers of pure-breds. (See "Selling the Pure-bred Sire Idea".)



The Success *of the* Coach *as* BUICK builds it



Standard Six Coach $1295

Master Six Coach $1495

Prices f. o. b. Buick Factories: government tax to be added. Ask about the G. M. A. C. Purchase Plan, which provides for Deferred Payments.

Everyone who has seen the Coach *as Buick builds it* knows why *this* Coach has received such sweeping public approval.

The Buick Coach is a real closed car—built to Buick's high closed-car standards. Fisher body. Graceful lines. Two wide doors, hinged at the front, enable rear-seat passengers to enter or leave either door without disturbing people in front seats. Duco finish. Different colors for each of the two coach models.

The chassis! The identical chassis that has won Buick world-recognition for dependability and economy! Valve-in-head engine. Buick exclusive automatic heat control for immediate all-weather starting. All driving units *sealed* in iron and steel housings to keep dirt out and lubrication in. Buick 4-wheel Brakes which function perfectly in any weather.

And the price! Never before, a closed car of such fine quality at such low cost!

These are the reasons for the phenomenal success of the Coach *as Buick builds it!*

BUICK MOTOR COMPANY, FLINT, MICHIGAN
Division of General Motors Corporation

Pioneer Builders
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Branches in All
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WHEN BETTER AUTOMOBILES ARE BUILT, BUICK WILL BUILD THEM

Junior Letters

Naming Arrow Head Farm

Hoard's Dairyman Juniors:—May I come in? I have always wanted to join the boys' and girls' department in Hoard's Dairyman and I am sure this department is going to be very interesting. I like to read the accounts of the different prize-winning clubs, as I am very much interested in them. We have a corn club in our community to which brother and I belong, and we were quite successful the last few years, raising the best corn in the community.

We live on a 200-acre dairy farm which we call "The Arrow Head Farm". This is how it got its name:

Many years ago there used to be an Indian encampment on the part of our land which runs down to the river. There we have found more than 300 arrow heads, besides tomahawks, stone scrapers, skinning knives, spear heads, and the bowl of a peace pipe which we prize most of all. Every year we keep adding to our collection, and searching for Indian relics has become one of my hobbies.

I would enjoy writing and receiving letters from the boys and girls of the different states. I am 15 years old and in high school.

My address is R. 1, Whippany, New Jersey.

Eva Goldblatt.

Raising Pigs in the South

Hoard's Dairyman Juniors:—Of the thoroughbred Poland-China pigs we are keeping two gilts and male, that makes five with their mother. To these five hogs we are feeding plenty of the small sweet potatoes and one gallon bucket of shorts as we did not raise any corn nor can we buy any. It is scarce around in the country where I live. We have two barrows in a pen and are fattening them for Christmas. The pigs are 5 months and 18 days old. They are weighing over 100 lbs. now.

Of the 22 pullets there are three laying but not any of the old hens. We have two fine cockerels running with our chickens and expect to put them on exhibit here in our town this coming fall. We exhibited them year before last, I mean our old strain but when we had them in the coop and the man examined them he said they were too young. Anyway we won second prize which I think was $5 or $10.

My address is is Quitman, Miss

Louisa Larmer.



Stop
Backache Drudgery & Waste—
Pat. Pend. **Rieff's Silage Feeder**

is accurate. *One* turn of the crank feeds *one* cow; one hopperful feeds 25 cows. Saves 1 to 2 hours back-breaking labor, daily. Nothing like it—*no* wear, *no* waste. *First cost is ALL.* Write for Facts, Testimonials and *Guarantee.*

DAIRY FEEDER CO., *Fond du Lac, Wis.*

More Money From Cows

Results from study of our CORRESPONDENCE COURSE IN DAIRY HERD MANAGEMENT and help given in solving your herd problems. Course approved by New York State Board of Education.

For particulars write

INTERNATIONAL DAIRY EXTENSION SERVICE
University Station, Box 15, Syracuse, N. Y.



The rate for advertising in this department is 12 cents per word. Count address. Remit in advance. Copy must reach us 8 days ahead of date of issue. Farm labor advertising 8c per word.

STOCK FOR SALE

Registered Holstein bulls and heifer calves. Homestead and Matador breeding, $30 and up. O'CONNOR BROS., Watertown, Wis. 21-6

Western Dairyman—for sale, one hundred seventy-five high grade Holstein cows and heifers. Seventy-five dollars carload lots. WILLIAMS BROS, Lamar, Colorado. 21-6

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wisconsin. 12-*

Holsteins For Sale—Will have to sell a number of young cows cheap; also some heifers and calves; all stock tuberculin tested. Write for particulars. E. F. THOMAS, Oconomowoc, Waukesha Co., Wis. 11-*

For Sale—Carload of Holstein springers from 3 to 6 years old. T. B. tested. E. E. LEWIS, R. 3, Racine, Wis. 23-4

Holstein Bull—Get pedigree. Three of his dams averaged 108 pounds milk 1 day. 40.48 pounds butter 7 days. $100. ROY HARRIMAN, Appleton, Wisconsin. 23-3

For Sale—Registered Holstein herd. 37 head. Price $5,000. 24 from 35 lb. sire, 9 from 30 lb. sire. No abortion or tuberculosis. Herd must be sold. MAX WITTE, Route 5, Watertown, Wisconsin. 15-*

For Sale—Ten high grade Holstein springers, $75.00 per head. JOHN PETERSON, Waupaca, Wis. 25-2

Three year old, blue ribbon bull, whose three nearest dams average 1016 pounds butter 22,925 pounds milk per year. EDWARD BREWIN, Sullivan Wis. 26-2

Oakland Guernsey Farm—(Since 1890) Mukwonago Wisconsin, offers carload high grade Guernsey springers, choice of our herd. T. B. tested, 5-six weeks old heifer calves $150, express paid. 24-*

Choicely bred Guernsey male calves from three months to serviceable age. May Rose and Cherub breeding. L. S. MEYER, Springfield, Missouri. 15-13

Registered Guernsey bull calves from high testing dams. Accredited herd. Reasonable prices. QUINEILLO FARMS, Thiensville, Wis. 23*

Write for sale list of 11 Registered Guernsey bulls, 2 to 12 months, 6 have dams and grandams with A. R. records averaging 732 pounds fat. Accredited herd. HOMER RUNDELL, Livingston, Wis. 22-*

For Sale—23 2 year old Guernsey heifers, high grades $65.00 each. DUTTON & CORT, Galesville, Wisconsin. 24-3

Grade Guernseys—Tuberculin tested. Carload of springers for sale now. Select what you want from my herd. LEE BURLINGHAM, Dousman, Wisconsin. 20-spl

For Sale—a few Brown Swiss bull calves, pure bred and grades. Here is an opportunity to get started with a Brown Swiss herd. Address WINDHAM FARM, Harvard, Ill. 25-2

HORSES

For Sale—Registered Belgian horses, both sexes and all ages. NORRIS LAND CO., Glenwood, Minn. 25-4

DOGS

Send for Your Copy two hundred page illustrated dog book about world's largest kennels and it's famous strain of Oorang Airedales specially trained as companions, watchdogs, automobile guards, stock drivers, hunters, retrievers. Ten cents postage brings book with price list of trained dogs, puppies, supplies, feeds, medicines, etc. OORANG KENNELS, Box 1, La Rue, Ohio. 2-*

Shepherd Pups—Guaranteed from best heeling stock. ALBERT HERRMANN, Norwood, Minnesota. 20-*

Hunting Hounds, Feeds, Medicines, Supplies. Catalogue. KENNEL JOURNAL, Herrick, Ill. 23-4

Scotch Collie Pups bred from real heeling stock. $5.00 each. Trained dogs eight months old, $15.00. S. C. BUSH, Maple Grove Farms, Pope Mills, New York. 23-4

HAY

Alfalfa Hay For Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Alfalfa or anything you want in dairy hay. Write or wire for prices. HARRY D. GATES COMPANY, Jackson, Mich. 9-*

Dairy Clover, alfalfa and grain. Write or wire for delivered prices. CALLIARI BROTHERS, Green Bay, Wisconsin. 17-*

Alfalfa hay for sale, all shock cured. Car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 18-*

Alfalfa Hay For Sale—Write for delivered price, ALBERT MILLER & COMPANY., 192 No. Clark St., Chicago, Ill., or call our representative LaCrosse, Wisconsin. Telephone 851-A. 19-*

Dairy Alfalfa and Prairie. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 26-8

FEEDS

Molasses Feed. 16% protein high class, milk making feed. Put out by specialists in economical feeds. Also "Your Own Mix" molasses feed; mix it yourself. Buy right, buy in car lots at rock bottom. C. E. DINGWALL CO., Milwaukee, Wis. 24-6

MINERAL FEEDS

Sota hog and stock mineral. One dollar per hundred. Dept. B. FOWLER & PAY, Mankato, Minnesota. 24-6

100 lb. Sack of Mineral feed especially for cows and calves. Trial sack of 100 lbs. $3.00. Write for booklet. A. B. RAYBURN, Litchfield, Minn. 25-9

FEED BAGS

We are now paying higher prices for empty feed bags. Write for quotations. THE DAYTON BAG & BURLAP CO. Dayton, Ohio. 23-*

TOBACCO

Homespun Tobacco—Chewing, 5 lbs., $1.50; ten, $2.50. Smoking, 5 lbs., $1.25; ten, $2.00. Pay when received, pipe and recipe free. FARMERS UNION, Paducah, Ky. 25-4

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Use good stationery by all means. Hoard's Dairyman Art Dept. designs your letterhead for 10c. Tell us your breed of stock. Get our free samples and reduced prices on letterheads, envelopes, shipping tags, cards, milk tickets, checks, etc. The best farm stationery money can buy. Book 5,000 farm, ranch and cottage names, 25c. Be sure to give correct post office address and state. Address HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 6-*

KODAK FINISHING

We Develop, print and enlarge your films. Send for price list and sample. FRAUTSCHY, Photographer, Monroe, Wis. 14-*

FARMS FOR SALE

An Opportunity—Modern dairy farm adjoining good city 10,000 in southeastern Nebraska; barn is steel equipped; electric lights; city water. Will stable 70 head of cattle. Two excellent dwelling houses. Well established retail trade; 65 registered Holsteins, bottling and delivery equipment. Horses, tractor and all necessary machinery. Farm consists 150 acres fertile bottom land; 30 acres alfalfa; 30 acres blue grass pasture; some timber. Situated gravel highway. Will sell entire layout or herd and land separate. Terms to responsible party. Address BOX 390, Care Hoard's Dairyman. 25-4

For Sale—145 acre dairy farm, 100 acres tilled. Ideal location. Two large modern equipped barns with box stalls for official testing. Two silos, dairy, etc. Very attractive home. GEORGE S. LOVE, ESTATE, Waukesha, Wisconsin. 12-*

"Wisconsin Opportunities—Free Wisconsin bulletins. Soil climate, crops. IMMIGRATION DIVISION, Wisconsin Dept. of Agriculture, Capitol 25, Madison, Wisconsin." 19-3

Improved farm in Minnesota and North Dakota can be purchased on 34 years time on small cash payments by persons who have their own help, equipment and live stock. Corn, alfalfa, hogs and dairying insure good earnings. Also have a few good farms to rent. For complete information and free book descriptive of the country write E. C. LEEDY, General Agricultural Development Agent, Dept. 82, Great Northern Railway, St. Paul, Minn. 22-*

For Sale—Dairy farm, well equipped, metal silo, near market, milk selling 20 cents. Splendid climate. Costs nothing for valuable information. Aged owner. L. B. 394, Southern Pines, N. C. 23-4

For the Best Money making dairy proposition write for particulars to WINWOOD DAIRY FARM, Burlington, Kansas. 25-2

Wonderful Opportunity—This 75 acre farm located in the best farming section of Pennsylvania; 10 room brick dwelling, large bank barn, good set of outbuildings, 9 acres heavy timber, 6 meadow, with running stream, 10 wheat; chestnut and red shale soil; 4 good horses, 10 cows, 7 hogs, 200 chickens all machinery and farm implements, also crops at field and barns included. Price $11,000, half cash required. Apply HANS ENGER, Perkasie, Pa. 24-3

Sheboygan County dairy farm, 80 acres, good buildings, fine clay loam soil. $100 per acre, convenient terms. Or will trade for town property. D. UTTER, Laack Hotel, Plymouth, Wis. 25-2

Wanted 1000 Good Dairymen—Good low priced land. Good green grazing year around. Good creamery. High prices for dairy products. Splendid climate. Fine people. Fortunes can be made here by real dairymen. For particulars write F. P. STUBBS, Eatonton, Georgia. 25-4

Administrator's Land Sale—In order to close an estate, I'm offering one of the very best grain, dairy, or stock ranches in the Famous Judeth Basin Montana at a sacrifice price. 1440 acres improved and plenty of water to irrigate in dry seasons. Will divide if necessary. B. F. GORDON, Adm., Straw, Mont. 25-4

Own a Farm—Minnesota has the best agricultural lands where the rent-paying farmer may, for a low price, purchase a farm of his own. Write OSCAR H. SMITH, Immigration Commissioner, Dept. 676, State Capitol, St. Paul, Minn.

North Dakota's soils will provide any type farm you want. Easier terms for purchase than you can rent land where you now are. GREATER NORTH DAKOTA ASSOCIATION, Valley City, N. D., Box 105.

$5,000 Reduction on equipped alfalfa dairy farm on state road, 10 minutes from city, new 100 ft. barn, cement floor, water buckets, milker, tile silo, good home, shade, 24 head cattle and horses, crops, and tools, $11,500, $5,000 cash for immediate acceptance; worth more than price asked for speculation. W. H. MAYNARD, Canastota, N. Y.

Why freeze in the North when you can buy an improved poultry and dairy farm where the climate is mild. $500 cash, balance on easy terms. Write CHAMBER OF COMMERCE, Eufaula, Alabama.

Market Milk dairy in California, near city, good opportunity. Sacrifice sale. Terms. Address V. C. BRYANT, College of Agriculture, Berkeley, Calif.

Alfalfa produces eight tons per acre in Diablo Valley. Good irrigated land within fifty miles of five largest cities of central California. Write DEPARTMENT F, East Contra Costa Chamber of Commerce, Brentwood, California.

For Sale—380 acres, located in Potter Co., Penn. 100 acres in cultivation, 150 acres in pasture, 130 acres in timber. 1 large brick farm house, 3 tenant houses, 2 barns. All farm tools and stock. Price $8,000, $2,000 down, balance on easy terms. Write MOUNTAIN VIEW FARM, Box 187, Austin, Pa.

Nebraska Dairy Farm for sale. Located in the heart of the great alfalfa and corn belt. E. J. PETERS, St. Michael, Nebraska. 26-3

For Sale—120 acre modern dairy farm 1 mile from railroad station with two banks, 25 miles from Springfield, Pop. 50,000. On State Highway both to station and Springfield. 3 houses, silo, modern barn 48 by 74 ft. with drinking cups, steam in milk house. In fine shape, ready to make money. With or without registered Holstein herd, horses and machinery complete. Good soil. A. J. McDOWELL, Owner, Fordland, Missouri.

FOR RENT

For Rent—A-1 stock and grain farm, 200 acres, with good buildings. 1¼ miles north of Wheeling, Illinois. Rent $6.00 an acre. DAVID K. TONE, 1101 Otis Bldg., Chicago Ill. 24-*

Two Dairy Farms for rent near Janesville 266 and 110 acres. Good soil and buildings. JOSEPH FISHER, Janesville, Wisconsin. 25-2

For Rent—Two farms. Ninety three, and seventy acres. New modern thirty and sixteen cow barns respectively. Drinking cups and milking machines. Tractor outfit on larger farm and horses, cows, and implements of present tenants on both can be bought right. R. MELVIN, Naperville, Ill.

For Rent, about March first, about 75 acres in lake region of Waukesha county, Wisconsin, the dairy capital of America. Tenant with sheep experience preferred—must be good dairyman as well. Will finance lamb feeding deal with right man. Opportunity for one or two hard working sons to help build up farm and work around neighborhood. Write fully. Address BOX 395, Care Hoard's Dairyman. 26-2

Dairyman Wanted—to rent 453 acre farm adjoining city limits of Decorah. Two houses, modern barns, two silos, spring water. Market for milk wholesale or retail. Address J. C. BEARD, Decorah, Ia. 26-4

For Rent—100 acre farm, one mile east of Barrington, Illinois. Modern buildings, electric lights, running water. WM. DAHIR, Barrington, Ill.

WANTED TO RENT

Wanted—One man farm to rent. Address BOX 406 Care Hoard's Dairyman. 26-2

SEEDS

Jacques' Seed Corn—North Wisconsin grown from pure thoroughly acclimated seed. Field selected before killing frosts, carefully sorted, thoroughly fire-dried, every bushel tested. 95-100% germination, strong vitality, 30 day's trial, money-back guarantee. My Golden Glow was ripe before frost, gave big yield of grain and silage, is ten days earlier than average. Jacques' Cold Resistant Golden Glow ripened on clay ground, a fine corn for silo or husking, bred for early planting. My Wisconsin No. 8 ripened early, gave good yield, is a good 90 day corn for husking or early maturing silage. Also Pride of the North, Rustler, White Dent, Minnesota No. 13, Wisconsin No. 25. Write for descriptive booklet and prices. WM. H. JACQUES, Neilsville, Wisconsin. 26-Spl.

Bargain Prices on 1923 Minnesota grown seed corn, grass seeds, seed grains. Write today. NORTH STAR FARM, Cokato, Minn. 23-4

Triangle—Pure Grimm and Cossack alfalfa seed, home grown. Hardy. Tested. Postcard brings samples, folder, full information. TRIANGLE RANCH, Cottonwood, South Dakota. 24-*

Seed Corn. Early Yellow Dent northern grown 1923 crop seed. Supply limited write quick. STANDARD SEED CORN CO., Sparta, Wisconsin. 25-2

Hardiest Alfalfa Seen. Genuine Grimm, 40 cents pound. Dakota No. 12, 26 cents. BLACK HILLS FARM, Newell, South Dakota. 26-2

MACHINERY

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices to users and dealers. ANDERSON MILKER COMPANY, Randolph, N. Y. 12-*

For Sale—No. 15 De Laval separator with power attachment. Good as new, guaranteed. $75.00. Also three registered Guernsey males. EARL W. HAMMOND, Rockport, Indiana. 25-2

For Sale—Perfection milking machine, 2 double units, never been used. NORRIS LAND CO., Glenwood, Minnesota. 25-5

Wanted—Small size sterilizer and bottle washer. Also bottle filler. SAMS & SON, Clarion, Iowa.

For Sale—Latest model Burton Page double unit hand power milker. Perfect order, half price. CHAS. G. STRONG, Chippewa Falls, Wis.

Closing Out sale of Empire Milker Units, 35 lb. Pail $60.00; 50 lb. Pails, $75.00; 70 lb. Pails, $78.00. W. S. PATTERSON CO., Appleton, Wis.

Wanted—Dairy equipment to operate retail 50 gallon milk route. GRAND VIEW DAIRY FARM, R 5, Louisville, Ohio.

AGENTS WANTED

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin. 2-tf

Agents Wanted in Wisconsin to take orders for Agricultural Limestone. No experience necessary. Good commission. Farmers preferred. WAUKESHA LIME & STONE COMPANY, Waukesha, Wis. 15-25

We pay $200 monthly salary, furnish car and expenses to introduce our guaranteed poultry and stock powders. BIGLER COMPANY, X643, Springfield, Illinois. 25-13

LIMESTONE

Ground Limestone for the soil, delivered prices. Dept. B. FOWLER & PAY, Mankato, Minn. 24-6

MISCELLANEOUS

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

Woolens for Sale. Your annual opportunity. For quick disposal we offer salesmen's samples of woolen goods, underwear, hosiery, blankets, sheep lined coats, mackinaws, leather vests, etc., at one-third to one-half less than regular prices. Our price list of sample goods is now ready. Send for it today. MINNEAPOLIS WOOLEN MILLS CO., 612-E-1st Ave. No., Minneapolis. 12-19

Old Money Wanted—Will pay fifty dollars for nickle of 1913 with Liberty head, (no Buffalo). We pay cash premium for all rare coins. Send 4c for large Coin Circular. May mean much profit to you. NUMISMATIC BANK, Dept. 599, Ft. Worth, Tex.

PATENTS

Patent-Sense—Free book for inventors seeking largest deserved profits. Write LACEY & LACEY, 753, F. St., Washington, D. C. Established 1869. 19-52



Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Six Farm Department managers wanted to take charge of farm, poultry, dairy, creamery, pure bred herd hogs, country sausage departments. Our farm is being re-organized to make a specialty of selling farm products direct to consumer. Experienced managers wanted, capable of developing their own department, able to invest a reasonable amount in business. Will consider live stock for capital. Why worry along by yourself in a limited way, here is a chance to get in on the ground floor, in a business with unlimited opportunity. Salary $1,200.00 to $2,500.00 per year. Write for particulars. State amount can invest and experience. WICKFIELD FARMS, INC., Cantril, Ia.

Firemen, Brakemen, for railroads nearest their homes—everywhere; beginners $150-$250 monthly (which position?). RAILWAY ASSOCIATION, Desk W-5 Brooklyn, N. Y. 25-5

Wanted—Clean reliable single man to do barn and dairy work, also assist on milk route. Must be experienced. Give reference. BOX 87, Genoa City, Wisconsin. 25-2

Wanted—Man and wife. Small farm and dairy. Must be strong, willing and efficient. No complainers wanted. ADVERTISER, 1408 Winona Ave., 3rd flat, Chicago, Illinois.

Wanted—Active, experienced young man, age about 35 to operate dairy and hog business on our farm in South Georgia. Excellent opportunity for right man. State experience and salary expected. MANAGER, 510 Bond Bldg., Washington, D. C.

Wanted at Once—Switzer or Dane, Protestant to take care of thoroughbred Guernsey cattle. Must be sober and industrious and not afarid to work. Living conditions good. Steady employment for right man. J. W. BUTLER, 700 Walnut St., McKeesport, Pa.

Married man to milk and care for small Jersey herd. Must be neat. Profit-sharing arrangement for right man. State wages expected. BOX 6, Sumner, Washington.

Wanted—Thoroughly experienced man for pasteurizing milk in Creamery. Must understand every detail pertaining to this work. Must be reliable, clean habits, married. Splendid living conditions. Good position to right man who will actually work. Address BOX 407, Care Hoard's Dairyman. 26-2

Wanted—Reliable, experienced, single herdsman to care for 25 cows producing grade A milk, low bacteria count. Habits must be clean, no cigarettes, must be worker. Give full particulars, reference first letter. Good home. F. X. MEYER, R. 6, Canton, Ohio.

HELP WANTED

Wanted—Married couple desiring permanent home to run my 160 acre dairy farm, 40 miles southeast of Chicago. Have 18 good grade Holsteins, De Laval Milker. Sell milk to Borden's. Six room house, good school and fine neighbors. Man must understand modern dairy practice and believe in Hoard's Dairyman. Wife must like farm life. Prefer to rent on share basis. Will furnish all stock, tools, and equipment, or will pay $60.00 per month and the usual perquisites plus a bonus of 15c per hundred pounds of milk sold. Will pay tenant $25.00 per month for boarding hired man when one is needed. For the right couple will increase herd to what the arm can carry. Address BOX 400, Care Hoard's Dairyman.

Wanted—Married couple, man to milk and care for 20 to 25 cows. Wages $40.00, house, milk, garden, fuel. Address BOX 403, Care Hoard's Dairyman.

Wanted—Active, experienced young man for milk oute and other work around farm. WINWOOD DAIRY, Burlington, Kansas.

POSITION WANTED

Men—Age 18-40, wanting Ry. Station Office positions, $115-$250 month, free transportation, experience unnecessary. Write BAKER, Supt., 124 Wainwright, St. Louis. 8-*

Wanted—Positions as herdsmen, farm assistants, dairymen, cow testing association men, orchard men, poultry men, by graduates of The National Farm School, Farm School, Pa. These young men have had practical experience in feeding, milking, handling horses, and tools, operating tractors, operating incubators and brooders, herd equipment and most ordinary farm machinery. 24-4

Position Wanted—College graduate who is an experienced dairy farm manager and herdsman is now open for engagement. Years of experience. Can produce results second to none. Thoroughly understand pure breds, testing, showing and economical production. Also soils, crops, etc. Have the executive ability to handle any proposition. Have the reputation of attending strictly to business and of being always on the job. Exceptional references. Salary or salary and percentage. Married. Address BOX 396, Care Hoard's Dairyman. 26-2

Wanted—After January 15, position as working farm manager or herdsman on modern dairy farm. Married, no children, age 36. Life experience; wife willing to board other employees. Good reference. Address BOX 397, Care Hoard's Dairyman.

Experienced young man prefers position on modern dairy farm. Address BOX 398, Care Hoard's Dairyman.

Position Wanted about March 1 as herdsman. Married, age 30, steady, experienced farmer and herdsman. Address BOX 404, Care Hoard's Dairyman. 26-2

Position Wanted—As manager or herdsman on modern pure bred dairy farm. Age 32, married, life experience with pure bred cattle (Jerseys). Thoroughly understand breeding, feeding, calf raising, machinery, etc. Best of reference. H. S. STANSELL, Sheffield, Ill.

Position Wanted March 1st by experienced farmer—widower with two children, boy 15, girl 12. Address BOX 405, Care Hoard's Dairyman.

Single man, reliable, clean, 30 years, educated and experienced with cattle, hogs, team, wants position on dairy or stock farm or as herdsman. Address BOX 402, Care Hoard's Dairyman.

Farm Manager wants position on large stock, grain and dairy farm. Lifetime experience, best reference. Would consider renting fully stocked and equipped farm, 50-50 proposition, may buy later. Address BOX 401, Care Hoard's Dairyman.

Position Wanted as Herdsman. Agricultural school graduate. Single, age 23, good habits. Experienced in general dairy farming, one year of official testing and two years of association testing. Will work for moderate wages. State conditions. HEINZ SCHROETER, 321, North Avers Ave., Chicago, Ill. 26-2

Energetic man of nineteen desires position on farm or dairy. Steady reliable, experienced References furnished. State wages, particulars in first reply. HERVEY BRAGDON, R. R. 2, Sullivan, Indiana.

Dairy Farm

Wonderful Beauty Spot and Paying Good Profit

Are you looking for such a place? If so investigate this fine 150-acre farm, with its soundly established business of producing Grade A Raw milk for hospitals, schools, and milk dealers; official health department score 98 per cent; demand for this high quality milk will steadily increase, because physicians more and more prescribe its use; two houses other especially equipped buildings; also trucks tractor, machinery, etc.; fine registered Holsteins; situated in the path of a public improvement that will increase its land value astoundingly. Price, complete, $70,000, interesting terms. Might sell part interest to competent, reliable dairyman. ADDRESS BOX 399, CARE HOARD'S DAIRYMAN.

BULL CALF — Show Prospect

Born July 26, '24. Sire is of Langwater breeding His dam, Minnie of State Road with 355 lbs. fat in class G. is from 753 lb. 17 year old cow. Grandson of Chene breeding. Price $250. Accredited herd.
RUSSELLHURST FARM Willoughby, Ohio

Washington, D. C., Weekly News

(Continued from page 799)

were ordered disinfected, crates and coops burned or thoroughly cleaned and all other necessary steps taken.

⚜

An extension of the system of federal inspection of foodstuffs, such as is now provided for butter, into the egg business, is being proposed, and a conference of all interested is to be held in Chicago on January 29, with the Department of Agriculture officials ready at that time to establish inspectors at St. Paul, Omaha, Kansas City, and St. Louis, and at Chicago New York, Boston, and Philadelphia if the trade wishes this to be done Work has been done for more than a year on the grades and standards and it is believed that the trade is ready for a complete agreement on these grades. The work is in charge of the Division of Dairy and Poultry Markets of the Bureau of Agricultural Economics.

Missouri Dairymen to Meet

The thirty-fifth annual meeting of the Missouri State Dairy Association will be held in Columbia, January 23, 1925. This meeting will be held in connection with the Annual Farmers' Week at the College of Agriculture.

The program has been arranged to be of interest to all dairymen. Mr. W. A. Foster of the National Dairy Council will be the chief speaker on the program and will discuss milk campaign work and the marketing of the product. Prizes totaling $1,250 which have been won by the various counties in cow testing association contests will be awarded. Every winning county is expected to have a delegation of dairymen present.

A short business meeting and election of officers will then be followed by a tour of the dairy building, laboratories, and creamery as well as the barns. The meeting will then adjourn to the annual Farmers' Week banquet.

The meeting has been especially arranged to let Missouri dairymen attend Farmers' Week, the banquet, and the dairymen's meeting all in one. Railroad rates of fare and a half for round trip provide an extra inducement and every dairyman should plan to attend.—E. M. HARMON, Sec.

New Farm Economics Book

To farmers and students who are interested in a study of farm economics, farm management, and the distribution of farm products, a new book written by Frank App, professor of agricultural economics, Rutgers College and New Jersey State University, edited by Kary C. Davis and published as one of the Lippincott Farm Manual series, is recommended. The title of the book is "Farm Economics, Management and Distribution."

Professor App has gone a long ways in making the subject intensely interesting, instructive, and practical. The reason for this is, perhaps, the fact that he has used such a large number of graphic illustrations, photographs, and statistical tables that have a tendency to instruct the mind through the eye to a greater extent than would mere printed words. We think this is the outstanding feature of the book.

Another thing that is especially commendable in a work of this kind is the way in which the author has confined himself to facts based on sufficient available experimental or investigational work as to warrant the expression of reasonably dependable conclusions. This the author has done very well rather than the giving of his own personal opinions about the various problems.

The chapter dealing with the fundamental principles of co-operation in agriculture, written by G. Harold Powell, is one of the outstanding chapters of the book. To those who are especially interested in co-operative marketing, the reading of this chapter will be helpful.

The book as a whole is well organized and well written. It contains 248 illustrations and 700 pages. Copies may be secured from Hoard's Dairyman book department, Fort Atkinson, Wisconsin. The price is $3.00 per copy.

Washington Holstein Champion

Washington has two new champion Holstein cows for ten months production of milk and butter, according to the Advanced Registry Department of the Holstein-Friesian Association of America. Both made their records in the State Hospital herd.

Florence Pontiac of Greenbank at the age of eight years is the new state leader for butter production in 305 consecutive days with a record of 24,047.7 pounds milk containing 779.09 pounds butterfat equal to 973.8 pounds butter. She recently qualified for this record by dropping twin bull calves which she carried 216 days of her test period.

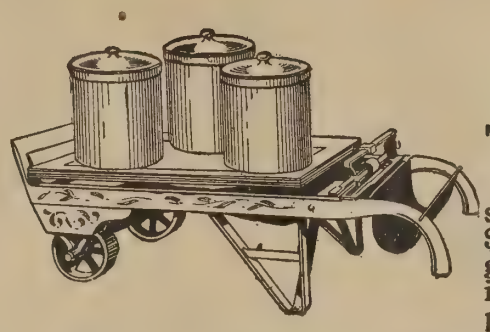
The leading milk producing cow of the state in the ten months' division is Chimacum Korndyke Veeman, a six-year-old, whose record is 24,246.2 pounds milk and 763.7 pounds butter. She carried a calf 196 days of the test.—Extension Department Holstein-Friesian Ass'n of America.

Our chief want in life is somebody who shall make us do what we can do. —EMERSON.

Saves $5.00 a Month on Butter Alone

By Using Renfrew Scales

"The RENFREW Truck Scales has saved me $5.00 every month I have used it on butter products alone. It surely is worth the price you ask for it. It's a bargain and if a farmer uses it a month, he will never part with it."
—Henry Van De Slunt
Fairwater, Wis.



THAT'S only one of thousands of cases where the wonderful Renfrew Portable Scales are saving farmers money every day they are used. One man says he saved $87.00 on a carload of hay, another says he made $6 extra on two hogs. We have enthusiastic letters from grateful Renfrew owners all over America—all telling of increased earnings, added profits, extra money in their pockets—**thanks to the Renfrew!**

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After 30 Days FREE Trial!
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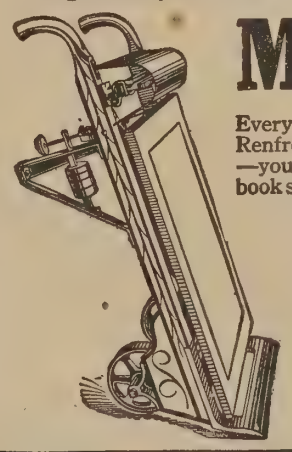
You don't have to send us a cent until you have given the RENFREW a 30 Days' Trial. Use it as your own for 30 days. If you decide that you want it, send only $7.50 and pay balance in small monthly payments, or if you don't want it, return at our expense.

Guarantee The RENFREW Portable Truck Scales is guaranteed to be the equal of any farm scales made, regardless of price. Passed by the Bureau of Standards of every state as being absolutely correct and accurate.

It has been estimated that American farmers lose over thirty five million dollars every year by "lumping off" hay or grain or live stock to expert buyers who see to it that **they** do not lose by this "guessing," however much **you** lose! Very likely YOU do such "guessing." You may have the old fashioned clumsy stationary scales, but they are so inconvenient to use for many things that you **constantly** take chances on losing money by just "guessing" at weights. Don't do it! **Get a Renfrew and save money!**

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Write at once for our free trial offer. Learn how you can have thirty days free use of this wonderful Renfrew Portable. It works just like a wheelbarrow or truck—weighs anything, anywhere, from a pound to a ton, takes all the "guess" out of buying and selling—and saves you money every day you use it!



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Every day you try to get along without the Renfrew—every day you just guess at weights—you lose money. Send for our big free book showing just how the Renfrew saves you time and trouble and money—how it weighs everything, even loose hay—how it weighs your grain at the granary, your hogs in the pen, your stock in the barn, your potatoes in the patch! Remember—30 days free trial, with no obligation to buy unless you are absolutely satisfied that the Renfrew saves you money! Send the coupon TODAY!

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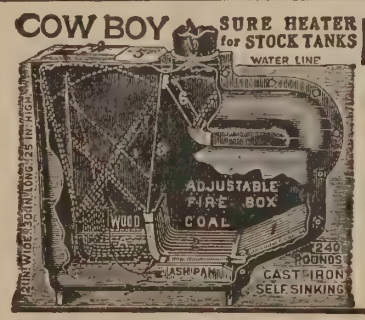
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COW BOY TANK HEATER Saves Money Every Week

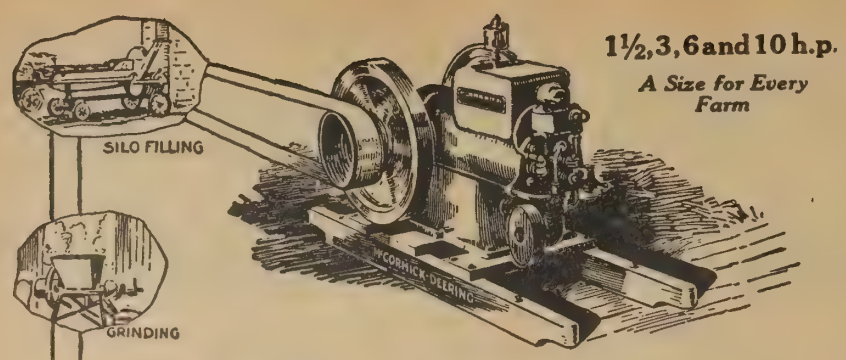
Turn cows out of barn to drink in Fresh Air and Warm Water. "Better drink from a Large Tank than from a Small Bowl." Burns coal, cobs or wood. Outlasts all others. Durable, practical, reliable. Quickest to heat; strongest draft; ashes removed with no check to fire; adjustable grates; keeps fire 24 hours. **ABSOLUTELY SAFE.** Warm water helps digestion; saves grain.

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MUNDIE MFG. COMPANY, 513 Brunner St., Peru, ILL.

SALE ANNOUNCEMENTS

Jan. 14-15—New York State Holstein Sale, Syracuse, N. Y.
Feb. 17—Holsteins. Sherman Bros. Dispersal at Waterloo, Ia. Iowa Holstein Breeders' Association, Mgrs.
Feb. 24—Holsteins. Dairy Center Sale, Owatonna, Minn. Twin City Pedigree & Service Co., Managers.
Mar. 10—Holsteins. Iowa Spring Guaranty Sale at Waterloo, Ia. Iowa Holstein Breeders' Association, Mgrs.
April 29-30, May 1—Holsteins. Fourth Brentwood Sale to be held at Abington, Pa.



1½, 3, 6 and 10 h.p.
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McCORMICK-DEERING engines are faithful servants. They will "put their shoulders to the wheel" on any of the lighter power jobs on the farm—and they'll do the work cheaply, too. If you are now turning the washing machine, cream separator, etc., by hand; if you are pumping water yourself or using unreliable wind power; or if you are paying an outsider to do your lighter belt jobs; you have a paying place for a 1½, 3, 6, or 10 h. p. McCormick-Deering engine.

Call on the local McCormick-Deering dealer, and he will show you the important features that put McCormick-Deering engines ahead of the rank and file of ordinary engines. You can buy them on a basis of many years of economical service.

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It is full of practical ideas, plans and suggestions that other farmers are using—*today*. It is written from experience, and contains only the kind of information that practical dairymen and farmers want. How to improve an old barn—How to get the right floor plan—How to save labor—How to handle the feeding and cleaning jobs, etc.

Send for this book. It is free. It tells you "how" you can install any Jamesway Equipment, steel stanchions, stalls, water cups, carriers, etc.—right now—on our "PAY-FROM-INCREASED-EARNINGS" Plan. Right in your county there is a Jamesway Man, who is able, capable and eager to help you. Our book will tell you how. Write today. Mail the coupon this instant to Dept. A

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- How to get a good dairy barn.
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Cow Testing Associations

Following is a summary of reports received during the week and up to the time of going to press of this issue:

State	Ass'n.	Mo.	Breed	High cow Fat Lbs.	Owner
Calif.	West Side	Dec.	H.	71.6	H. Hansen
Mont.	Bitter Root Valley	Nov.	G. H.	63.0	D. C. Gray
Minn.	Pine Co.	"	G. H.	49.0	E. G. Strean
N. D.	Mandan H.-S.	"	G. H.	65.7	State Training School
N. Y.	Livonia D. I.	"	R. H.	79.2	J. O. Moore
Vt.	Conn. Valley	"	G. H.	93.9	H. A. Carleton
Iowa	Hancock 1	Dec.	R. H.	58.5	C. Tannahill
Va.	Pr. William	"	R. J.	63.1	Clover Hill Farm
S. D.	Watertown	Nov.	R. G.	51.9	W. Putnam
Mich.	N. Antrim	"	G. J.	58.6	J. Hennep
"	Oscoda 1	"	G. J.	65.3	M. Esch
"	N. Kent	"	R. H.	67.4	F. Jewell
"	Monroe Co.	"	R. G.	60.8	B. S. Knapp
"	Huron-Ubly	"	G. H.	79.2	F. Bensweger
"	Livingston 2	Dec.	R. H.	74.7	A. Ruttman
"	St. Clair 2	"	R. J.	67.1	F. R. Watkins
Ind.	Spen.-Perry	"	H.	65.0	J. E. Magee
Wis.	Waukesha	Nov.	R. H.	88.2	Swartz Farm
"	Pew.-Sussex	"	R. H.	88.0	H. Bartlett
"	Merton	"	G. H.	69.9	P. Peterson
"	Hart.-Ocon.	"	G. H.	63.0	O. Solverson
"	Gen.-Eagle	"	R. J.	58.8	W. M. Knight
"	Musk.-Ver.	"	G. H.	58.1	B. A. Clark
"	Saukville	"	G. H.	65.7	N. Jocque
Ill.	Kane Co. 2	"	G. H.	59.0	E. C. Lakin

Association Notes by Testers

Pine Co., Minn.: One herd was tuberculin tested and no reactors found, making it an accredited herd. Eleven cows produced over 40 lbs. of fat in November.—A. Driver.

Livonia D. I., New York: Testing has been discontinued in this association for three months on account of shortage of testers. The high herd for November is owned by James O. Moore. His 12 pure-bred Holsteins averaged 1,057 lbs. milk, 41.6 lbs. fat per cow. In the 21 herds tested, 207 cows were pure-bred and 174 grades. All herds except 4 are tuberculin tested. Twelve barns are whitewashed; 13 have water cups; 17 have swinging stanchions; 13 members use milking machines; 7 have warm water; 14 electricity, and one is using natural gas for light and heat; all except one have silos. The average production per cow is 529 lbs. milk, 17.7 lbs. fat; profit, $3.47 above cost of feed. Corn silage costs $4 to $6 per ton; hay, $15; bean pods and oat straw, $8; grain, $35 to $55. The average price of milk is $2.25 per hundred pounds. Fourteen cows produced over 40 lbs. fat, three over 50, and 9 over 12,000 lbs. milk. Milk retailed at 10 to 16 cents per quart; farm butter, 50 to 55 cents per lb. Only two barns are provided with model ventilating systems.—C. Prescher.

Oscoda No. 1, Mich.: Ed. Handrich had the high cow in fat production for November. His herd of 14 grade Guernseys averaged 40.2 lbs. fat. A bull association was organized during that month. Eight cows produced over 50 lbs. fat, 12 between 40 and 50 lbs. fat.—W. V. Pangborn.

North Kent, Mich.: One milk house was constructed and another replastered and a cooling tank installed. One member put in drinking fountains.—H. Hansen.

Monroe Co., Mich.: A meeting was held for members and interested dairymen. J. Hayes from the Michigan Agricultural College talked on cow testing association work, mineral feeding, and bull associations. County Agent Burton organized a bull association. In November market milk sold for $3 per cwt. and retailed for 10 cents per quart.—L. Dexter.

Huron—Ubly, Mich.: Several members feed balanced rations. Seven members have water in their barns. Fifty cows gave over 1,250 lbs. milk, 27 over 50 lbs. fat. The association average was 25 lbs. fat and the high herd average was 41.9 lbs. Two faulty separators were discovered. One was repaired and the other replaced by a better one. Market milk sold for $1.70 per cwt. in November. The condensery paid $1.70 for 3.5% milk.—C. M. Wagner.

Livingston No. 2, Mich.: Several barns were remodeled and the horses separated from the cows. One new milking machine was installed. Drinking cups are being placed in one barn. Market milk sold for $2.15 and retailed for 10 cents per quart in December. The creamery paid 51 cents per lb. for fat.—H. Sorensen.

Saukville, Wis.: One member put in drinking cups and another whitewashed his barn. The condensery paid $1.92 per cwt. for milk in November.—N. J. Schacknuth.

St. Clair No. 2, Mich.: Some changes have been made in rations by supplying more protein which brought good results. One member fixed over his barn. Another is building a milk house. Charles Greenberg had the high herd for December. His 10 grade Holsteins averaged 790 lbs. milk, 18.8 lbs. fat.—Ed. Shorland.

North Antrim, Mich.: Many members are installing drinking cups and getting the desired results. One milking machine was installed. Antrim County is doing its part in the great strides Michigan is making in dairying. Foundation stock for future herds is much in demand. The 271 cows tested in November averaged 439 lbs. milk, 19.4 lbs. fat; average cost per cow, $5.60; returns for each dollar spent for feed, $1.20.—G. G. Millett.

Hancock Co. No. 1, Ia.: One ration was changed and the feed cost cheapened $.054 per lb. fat. The high herd, owned by A. O. Christenson, produced 1,009 lbs. milk, 40.3 lbs. fat. One barn was made more comfortable for the cows and a litter carrier is to be installed in another.—H. W. Tiggeman.

Prince William Co., Va.: Clover Hill Farm, with 21 pure-bred Jerseys, had high herd in December, leading the list with an average production of 581 lbs. of milk, 37.3 lbs. fat. The herd of C. C. Lynn has the highest average for the present cow test year which began September 1st. Since that time the herd, consisting of 25 pure-bred and grade Holsteins, has an average for the four months of 3,826 lbs. milk, 130.6 lbs. fat. T. T. Curtis, formerly tester of the association, has been appointed county agent of Prince William County. In December market milk sold for $2.38 per cwt. and retailed for 14 cents per quart.—C. P. Williamson.

Watertown, So. Dak.: The average production for November, which was 601.8 lbs. milk, 23.1 lbs. fat, was a pound and a half fat per cow higher than for October. Three defective separators were found, one of them losing nearly 4 lbs. of fat for the month. In November market milk sold for $2.00 per cwt. and retailed for 10 cents per quart.—H. E. Erickson.

Spencer—Perry Co., Ind.: One milking machine was purchased. A membership drive begins the first of January. In December producers received 66 cents per lb. fat for market milk and the creamery paid 42 cents per lb. for fat. Milk retailed for 12 cents per quart, butter 42 cents per lb.—L. H. Janeway.

Kane Co. No. 2, Ill.: During the last two months, five members completed their year's work in this association. John P. Johnson has high cow with a record of 12,742 lbs. milk, 463 lbs. fat in ten months. The same cow, White Stone, a grade Holstein, made 500 lbs. fat and 13,759 lbs. milk in 11½ months; the December test bringing her up to the 500-mark. High herd average for the year is

held by R. D. Weseman with a herd of grade and pure-bred Holsteins making a record of 8,817 lbs. milk, 318 lbs. fat.—S. R. Lowe.

Brown Swiss Lead Association

The annual report of the Ithaca—Lone Rock, Wis., Cow Testing Association for the year of 1923—1924 shows that 24 herds completed the year's work and 419 cows completed nine months or more of the year's work, averaging 6,741 pounds milk. Seventy-two cows sold for dairy purposes and 29 unprofitable ones disposed of for beef.



BUR OAK ADE

The highest butterfat producer of the association for the year, Bur Oak Ade, owned by Wm. Reuter, produced 12,498 pounds milk and 514.3 pounds fat, leading her nearest competitor by a margin of 39.3 pounds. She is a registered Brown Swiss thirteen-year-old and gave birth to a 132-pound calf during the testing period. She not only gave the most butterfat but she also returned the greatest profit above feed cost.



HIGHEST PRODUCING HERD IN ITHACA—LONE ROCK ASSOCIATION

Mr. Reuter also had the high herd average with 367.6 pounds fat and $123.09 above feed cost. He, having a small herd, fed and cared for them himself which is the big factor in making good records and profits. Mr. Reuter is one of those foresighted farmers who makes best use of high priced land. He has two silos and fed silage all summer with a limited grain ration.

Wisconsin. A. J. CLARIDGE, Tester.

A Minnesota Report

Mower County No. 2, Minn., Association finished the year's work Oct. 31. Of the 26 herds in the association, 22 completed the year's work at this time. Two hundred twenty-nine cows produced 200 lbs. fat or over and 29 made 365 lbs. or more. Twenty-five cows qualified for the ribbon award given by Northwest Farmstead to grade cows producing 365 lbs. fat or over. The association averaged 7,070 lbs. milk and 276.7 lbs. fat for the year.

The high cow, a grade Holstein owned by Weideman & Burrington, produced 11,592 lbs. milk and 509.5 lbs. fat. The herd of 14 grade Jerseys, owned by F. H. Reed & Son, holds the high average with 380 lbs. fat.

Having become interested in better feeding, many members are raising alfalfa and soy beans to replace high protein concentrates, formerly purchased in the form of bran and linseed meal.

LLOYD W. MADDEN, Tester.

A Pennsylvania Association

The Warren—Elk Association of Pennsylvania completed its year with 23 members owning 634 cows. The average production was 7,637 lbs. milk containing 276.3 lbs. fat. There were 42 cows that produced over 400 lbs. butterfat, the high cow being a pure-bred Holstein owned by the State Hospital. She had a production of 23,717 lbs. milk containing 876 lbs. fat. The high herd consisted of 87 registered and grade Holsteins owned by the State Hospital. They had an average production of 12,260 lbs. milk containing 404 lbs. fat.

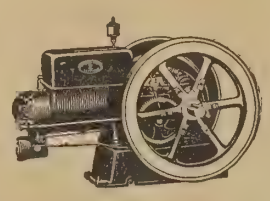
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Over 400,000 farmers use this engine because it is low in first cost, low in operating cost, and is absolutely dependable. It is simple, sturdy and powerful. Has high tension battery or magneto ignition; suction fuel feed; positive lubrication; renewable die-cast bearings; parts subject to wear are hardened and ground; crankshaft, connecting rod and camshaft are drop forgings. More drop forgings and specially heat treated parts are used than in any other engine of this type. Highest quality obtainable—at the lowest price possible!

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3 h. p. bat. equipt.	83.50
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Grind grain mixtures as well as any single grain. When grinding plates are worn on one side they can be turned and used again. Non-bridging hopper, safety flywheel, cutting knife adjustable from outside—extreme simplicity assures long life.

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No. 8	40.00
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Both electric light and engine power from one plant at one cost. Engine power is available at belt pulley while battery is being charged. Engine power alone or electric light alone at any time. Double utility at one low cost.

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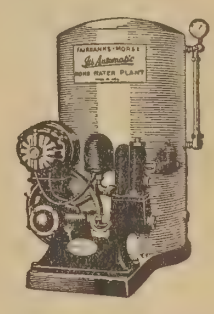
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Steel Eclipse Windmills

All parts are completely enclosed and run in oil. Cut pinion and worm gear eliminate many parts. Crankshaft is drop forged. All working parts machined to close limits. Simple, all-metal construction—built for a life-time of service. Self-regulating. Quick down stroke, slow lift—actual pumping two-thirds of the time. Wheel is tilted to take advantage of slightest wind. Sizes: 8 ft. and larger.

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Also larger sizes, for engine or electric drive, correspondingly low priced.

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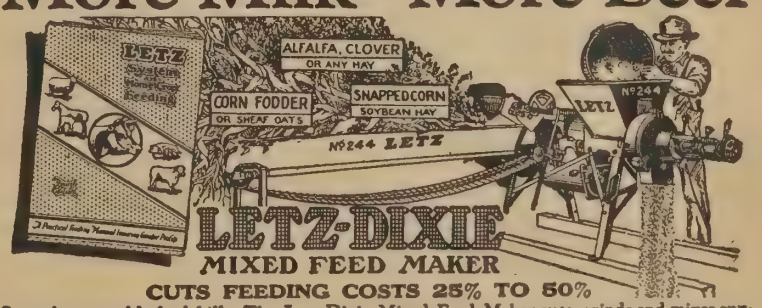
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More Milk—More Beef



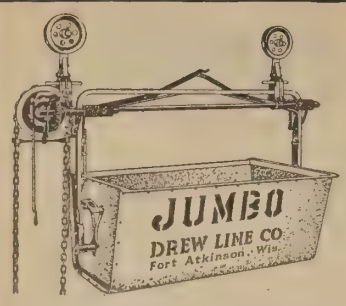
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MIXED FEED MAKER

CUTS FEEDING COSTS 25% TO 50%

Stop that monthly feed bill. The Letz Dixie Mixed Feed Maker cuts, grinds and mixes anything grown; makes a perfectly balanced ration from home-grown crops; guarantees to increase production 15% to 30%. A warehouse in every state. Request your copy of the new Letz Feeding Manual, filled with profit-making facts and figures.

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KEEP your stables clean and sanitary, cut stable work in half, make it a pleasure instead of drudgery. This Jumbo Carrier shows you the modern way. Carries big loads just where you want them. Latches at both ends, dumps automatically or by hand.

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Jumbo is only a small part of the modern barn equipment he carries. Get his low prices on stalls, stanchions, water bowls, etc. All up-to-date barn conveniences, standard for 27 years. He saves you money. Fill out and send the coupon.

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Imported Melotte

with the *self-balancing* bowl. Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. Runs so easily, bowl spins *25 minutes* after you stop cranking unless you apply brake.

Duty Free



$7.50 After 30 Days FREE TRIAL

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Send today for free separator book containing full description. Don't buy any separator until you have found out all about the Melotte and details of our 15 year guarantee.

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Milk Record Sheets

10 cows for 31 days

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MODEL MILKING SHED CLEANED UP AFTER MILKING



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BACK VIEW OF MODEL MILKING SHED SHOWING COWS LEAVING AFTER BEING MILKED

Wisconsin Condensed Milk

Wisconsin produces more condensed milk than any other state in the Union. The estimated pack is 423,000,000 pounds annually or 14,000 cars of 30,000 pounds each. The largest production takes place during June, July, and August which makes it necessary for large stocks to be carried over to supply the winter trade. There are periods when our factories are over-crowded with stock and many of our condenseries would welcome some central warehouse on a direct line to market, where there would be no additional transportation cost, where goods could be stored.

This commodity runs in large sums of money and if there was some central warehouse that could issue negotiable storage receipts so that the owner could go to the banks and receive liberal advances there is no doubt that considerable quantities of condensed milk would find their way to storage warehouses. It is fair to estimate that at least 1,000 cars would be placed in storage annually by the smaller condenseries that find it hard to finance their pack.—Wisconsin Department of Markets.

Willie: Dad, why is an after-dinner speech called a toast?

Dad: Because it is usually so dry, my son.—Good Hardware.



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More John Deere Spreaders are in use than any other make. And any one of the many thousands of users will tell you these reasons why he prefers the

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It's easier to load—box is 6 to 10 inches lower than others.

It's easier on horses—because of higher drive wheels and roller-bearing apron.

It does better work—because the beater is lower down, and the revolving rake prevents bunching.

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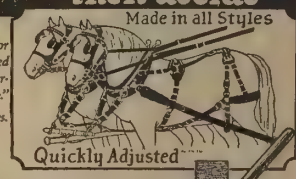
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THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

Use My WEAR-MORE Harness 30 DAYS FREE —then decide

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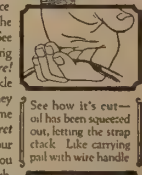
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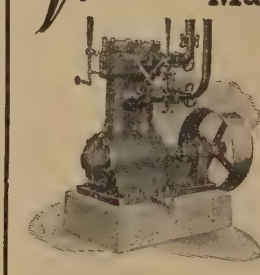




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See how patented WEAR-MORE buckle lets strap pull against big, broad surface, well protected like your hand on the large, comfortable round wooden handle on pail bail

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THE VILTER MANUFACTURING CO.
874 Clinton St. Estab. 1867 MILWAUKEE, WIS.

DON'T PUT OFF

Seeing your friends and having them join in for a club of subscribers.

Starting Alfalfa in Georgia

(Continued from page 792)

been found outside of Kansas, Nebraska, and South Dakota that were entirely satisfactory. The common alfalfa from these places is being used more and more.

Fall seeding is considered much better than spring seeding. For the last ten years the fall seedings have failed three times, due to the young plants being killed by a sudden drop in the temperature, at some time during the winter. This has caused a number of growers in the northern part of the state to try spring seeding extensively. In the middle section fall seeding is still followed.

If the alfalfa could be seeded early enough in the fall there would be little winterkilling. Successful early seeding is difficult, however, due to the scanty rainfall that normally comes at this period and to the high temperatures early in the fall. Late September and early October are regarded at Athens as the best time for sowing on average years.

Alfalfa has been cut when the young shoots began to appear at the base of the plant. Last season a test of time of cutting was started at Athens but the very dry summer caused the results to be of little value. It is believed from observation that slightly later cuttings will be better.

Acid Phosphate and Manure

A good application of acid phosphate is believed essential to the best growth of alfalfa, because over the alfalfa section of Georgia this fertilizer gives good returns under practically all conditions. When four to eight hundred pounds per acre are applied at planting there has been little response from further applications two to four years later. After the alfalfa is well established there seems to be nothing better for keeping it going well than a good, heavy application of stable manure during the late fall or early spring. The land is usually too wet for driving over it in the winter. Vigorous cultivation is also beneficial. Some growers are beginning to believe it is one of the essentials for growing alfalfa.

Friendly Talks for Farm Folks

Down in Florida there is a man who is experimenting with a big herd of cows and shipping the milk by airplane each morning to cities in Alabama. The great glass-lined refrigerator tank-cars which have been installed on a few railroads promise to bring fresh milk from mid-western farms to New York City daily By and by somebody will think up a way to shoot milk by wireless or radio from a California dairy to a breakfast table down on Long Island. When this happens, dairymen who are producing milk at give-away prices in our eastern states will of very necessity have to go into some other business in order to keep on living as they have accustomed themselves.

⚜

A stands for Auto—friend of rich and of poor; B is for Brakes—four-wheel kinds are most sure. C—Carburetor, a menacing thing; or Cross Crossings Cautiously while on the wing. D stands for Doctor—in case you are caught; Engine, of course, is with many hopes fraught. F stands for Fan-belt—the non-slipping kind, while Garage waits for those whose cars growl, gasp, and grind. Hooch has been known to cause many a spill for the Idiot madly careening at will. J is for Jam which the traffic cop hates; K stands for Knock which most never abates. L is for License to marry your car; M for the Motor which bears you so far. N stands for Nerve of which plenty is good; O for the Oil which goes under the hood. P is for Passenger—keep well insured! Q stands for Questions to which all are immured. R are the Ruts which so ruin your Tires; U for the Urchins who stir up your ire. V for the Villain who charges a pile for five minutes of Work which perhaps lasts a mile. Y is for Yarn of the mileage you've run with a Zest shared by all—and my alphabet's done.

⚜

In the good old political days when votes were as often as not bought instead of freely bestowed, an old character, by name of John Andrews, was in the habit of trading his right of suffrage to the highest bidder. Came the first Tuesday in November and old John was at the polls. The village political boss hovered near by to make certain that his minions didn't forget their part of sundry bargains. As old John stepped up to the booth, about to enter, he turned to this said boss and announced so that everybody in the room plainly heard, "Now I want it thoroughly understood, Joe, that at least three cords out of that five of wood must be thoroughly seasoned."

⚜

Isaah Spooner says it isn't so much cold feet that bothers him when he's scared to death, as cold, twittering knees.

⚜

There are over one hundred million persons—everyone of whom eats—in the United States. And there are over seven million farmers to supply these "eats". If the population increases ten millions in ten years, what bright little boy or girl can tell us how long it will take for the seven million farmers, good, bad, and indifferent, to make a living and ten per cent, provided modern machinery is invented on the scale of the past twenty years, and provided all the other countries of the earth struggle their best to be as nearly independent as possible agriculturally?

⚜

Speaking of the faithful farm machinery, Roger Payson keeps all of thirty hired men, but not one human one. And you ought to see the work roll off at the Payson farm.

New York. HELEN S. K. WILLCOX.

FORWARD WISCONSIN
FARM FACTORY COMMERCE

What Are We Doing to Help Insure Our Jobs?

NO matter where we work — on the farm, in the factory, in store, shop or office — our "job" (whatever it may be) and our pay envelope or income, depend in large measure upon the growth and prosperity of Wisconsin producers on farm and in factory.

Bank deposits, retail business, prices of farm products, real estate values — these and many others are dependent, through our "job", upon Wisconsin industry.

Besides giving a full day's work, Mr. Reader, what are you doing to insure your job?

Remember, Wisconsin must keep pace with a growing population, meet our world-wide competition and furnish opportunities of the right kind for yourself and your children. The right effort, good judgment and fair laws will make Wisconsin grow and will help to insure your "job".

Keep In Mind That It Is The Money That Comes From The Sale of Wisconsin Farm and Factory Products, That Keeps Us All Going.

Write for booklet: "The Story of Wisconsin"

WISCONSIN MANUFACTURERS' ASSOCIATION, Madison, Wis.

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POULTRY On The DAIRY FARM

J. B. HAYES



The Proper Balance

Satisfactory results can never be obtained from the feeding of a single ration of grain without the proper balance in the form of dry mash. One can probably get by when a very experienced feeder is handling the flock, but the average individual is too poor in that respect. It requires exceptional skill to keep a bunch right on edge and avoid under or over feeding at any time.

Aside from the great food value that is contained in the proper dry mash mixture, is also the safety valve that allows the hens not receiving sufficient grain to balance the mixture and obtain sufficient nourishment from the other source. A dry mash mixture is a combination of mill feeds, animal protein, and mineral feeds in an easily digested form to which the flock has constant access in a dry form.

One should always remember that dry mash feeding is a year round proposition rather than just a winter procedure to be followed. Economical egg production is depended upon the proper balance of feeds which means a dry mash. Some work has been done that would tend to show the effectiveness of feeding milk and grain rather than a dry mash and was successful because of good feeding. All flock owners would not obtain the same results.

Particular attention to dry mash feeding was noted late this fall in two flocks that were culled on successive days. One was feeding only a grain mixture and was obtaining about a one-half of one per cent production. The second was feeding dry mash and giving the flock milk to drink with a return of good will in the way of a fifty-one per cent production. There was no reason for the difference except in the feed that was offered. One was a high cost maintenance ration while the second had enough left over for a satisfactory, profitable production.

What Constitutes a Mash

A proper mixture contains variety. Present work seems to indicate that at least four or five materials should be used in compiling the mash to allow a greater variety and better balance. A dry mash that is too bulky does not furnish sufficient feed for the flock and will not work down well in a hopper type self-feeder. In addition the mixture should be rather narrow with a nutritive ratio of about 1.4 or 1.5.

With this idea in mind one can compile a ration from available feeds or may use a good dairy ration as the base and make the necessary changes that will bring it up to requirements. The necessary addition in this case would be salt and animal protein feed such as meat scrap or tankage when an abundance of milk was not available.

Why Animal Protein

The use of animal protein feed is a regulator of the development of yolks and renders available more vegetable protein. One can almost automatically lower or increase egg production by the amount of animal protein that is fed.

Since there is a point of diminishing returns, the amount in the mash has been set at twenty per cent. This proportion will give ten per cent of the entire ration when one is feeding equal parts of mash and scratch. The point of greatest return has been partially established at seventeen per cent but the addition of three per cent more makes calculation easier and is profitable.

In cases where the amount is increased beyond that point, the production will continue to increase but the increased production is not in proportion to the increase cost.

The following is the egg production of four pens of White Wyandottes (100 days):

Pen 1—25 hens—mash with 10% meat scrap—1,281 eggs; pen 2—25 hens—mash with 12½% meat scrap—1,343 eggs; pen 3—25 hens—mash with 15% meat scrap—1,393 eggs; pen 4—25 hens—mash with 17% meat scrap—1,403 eggs.

Wet or Dry

Wet mash will increase production but not sufficiently to pay for the labor. This is the commonly accepted idea. One exception to this statement applies to pullets. Often one will find a bunch that are well matured and in good physical condition but are rather backward about starting. In such cases a moist mash at noon will tend to give the extra feed required to start production.

Noon feeding of moist mash is advised as the logical time. Feeding this material in the morning satisfies their appetite and stops them from exercising. A night feeding will fill the crop with easily digested material that will not remain any considerable length of time. If one eliminates both night and morning the only remaining time is at noon when the fowls are resting. Feeding at this time will not interfere with the regular feeding, allows just that much extra, and will stimulate production or development.

In all cases the mash should be moist and not wet. The term that is usually applied is a misnomer for chickens cannot become accustomed to sloppy feed. The mixture should be just crumbly enough so that it will break apart and not remain as a compact ball when squeezed. Mixing with milk is advised.

Never feed more than the flock will clean up in ten to fifteen minutes. The flat troughs should be removed and cleaned. Allowing feed to remain before them will throw the entire flock out of condition and off feed.

A Ration

When milk is available—sweet, sour, or buttermilk—other animal protein such as meat scrap or tankage is not required. Only milk should be given the flock and no water should be supplied. Where both milk and water are available the hens will drink some of each. In order to supply the proper amount of protein, only milk should be given them. This will mean a constant supply available at all times.

Even under these conditions the addition of ten per cent of meat scrap or tankage will increase the palatability of the mixture and increase the consumption. It is not absolutely necessary but is advised.

Mixtures vary in different sections, depending upon the materials that are available. The following mash is easily compounded and has given excellent results: 100 lbs. ground corn, 100 lbs. ground oats, 100 lbs. wheat middlings, 100 lbs. wheat bran, 100 lbs. meat scrap or tankage, 3 lbs. salt.

Prevention and Control of Poultry Diseases

A circular issued during the past year by the Kansas Agricultural Experiment Station and covering the subject "Prevention and Control of Poultry Diseases" is recommended to flock owners who want a practical reference on this subject. The circular is No. 106 and contains 78 pages.

The circular records two experiments, the results of which are of significant value. In order to determine the value of the essentials in poultry hygiene or cleanliness as compared with neglect of the essentials, trial pens of chickens were observed from January 1 to December 30. One pen received a minimum of care and the other a maximum of care as regards cleanliness and sanitary practices in the general management. The neglected pen had a 42 per cent loss by death as compared with 7 per cent loss in the well kept pen.

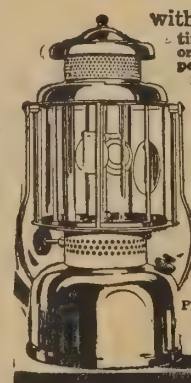
Another experiment had to do with nutritional diseases caused by the lack of certain vitamins in the feed. Where vitamin D was lacking there was a 10 per cent loss by death due to the nutritional deficiency. Where vitamins C and D were lacking the loss was 40 per cent; where vitamins A, C, and D were lacking the loss was 100 per cent, where vitamins B, C, and D were lacking the loss was 100 per per cent; where vitamins B, C, and D were lacking the loss was 100 per cent; where vitamins A, B, and C were lacking the loss was 40 per cent; where none of the vitamins were lacking there was no loss.

For Circular 106 write to Kansas State Agricultural College, Manhattan, Kansas.

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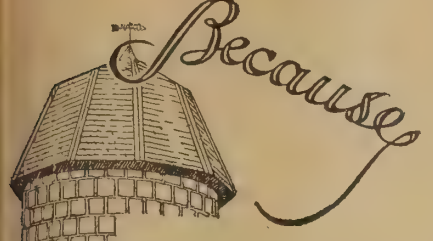
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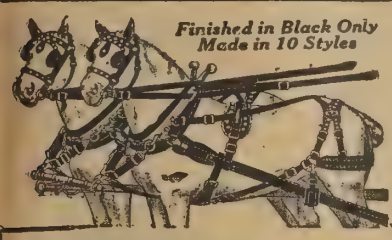


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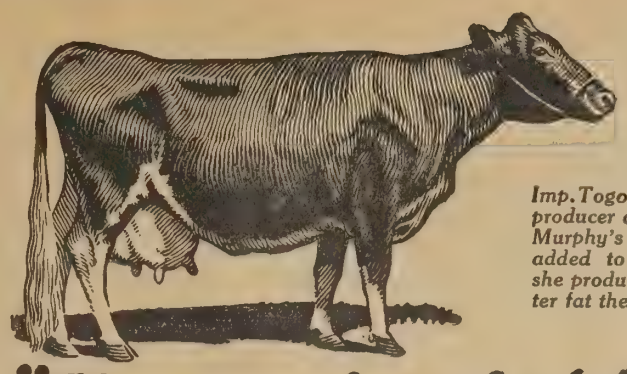
Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Mammary Gland Tumors

The cow's udder is so commonly attacked by disease and so rarely makes a perfect recovery from germ-caused mammitis, mastitis, or "garget" that it will comfort dairymen to know that cancerous tumors do not grow in the mammary glands of the cow. Often mistakes have been made in diagnosing certain lumps in the cow's udder as cancerous, but microscopic examination shows that they are not of malignant type and usually are benign or comparatively simple; but sometimes they prove to be tubercular or due to invasion of the gland by the "ray fungus" (actinomyces) which enters through the test duct. The bacilli of tuberculosis are carried into the gland by the blood stream or possibly the lymph circulation. These tumors are not difficult to differentiate and should be recognized largely by feeling with the hand, although they become apparent to the eye when of considerable size.

The commonest tumor, bunch, or lump in the cow's udder is composed of scar, tumor, or cicatricial tissue and is called fibroid in nature. Almost invariably it is the result of a severe and destructive attack of germ-caused or streptococcic mastitis. Pus forms and discharges either into the small or large milk holding chambers of the udder (acini and cisterns) or externally. The true milk secreting tissue is destroyed and replaced by new abnormal tissue, which has already been named and which cannot secrete milk. The lump or tumor tends to increase in size, is hard when felt with the fingers, but usually is painless, unless the inflammation that caused it has not wholly subsided. There is no remedy for such tumors other than removal by the surgeon's knife, an operation which is not considered advisable or profitable. When forming, the growth may, perhaps, be prevented from assuming great proportions by rubbing in iodine or mercurial ointment and the internal administration of iodine of potash, but such treatment rarely proves profitable. Prevention is all-important and results from proper treatment of the attack of mastitis by a qualified veterinarian who will employ biologics antagonistic to pus formation.

Actinomycotic tumors, caused by the same germ that induces lump jaw, are also hard at first, but they tend to degenerate in time, cause some discharge of gritty, canary-yellow pus and then sprouting growths of so-called "proud flesh", which technically is termed "exuberant granular tissue". Immediate excision of the diseased mass with the knife, followed by cauterization and use of iodine preparations, would be worth while in a valuable cow, could the condition at once be correctly diagnosed. When much of the udder is involved and the disease has progressed, however, treatment will not be worth while. Tuberculosis of the udder, comparatively rare in the cow, is characterized by formation of hard, insensitive nodules and tumors in some part of the gland or another. The hind quarters seem most commonly attacked and when that is the case the large lymphatic glands high up in the rear of the udder enlarge and harden so that they may be seen by the eye and felt by the hand. Tuberculin testing makes it unnecessary to harbor an affected cow whose milk is most dangerous when the udder is involved. The disease is incurable and contagious.



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John: "Try one of these cigars, old man, they're the best things out."

Bill: "How are they when they're lighted?"

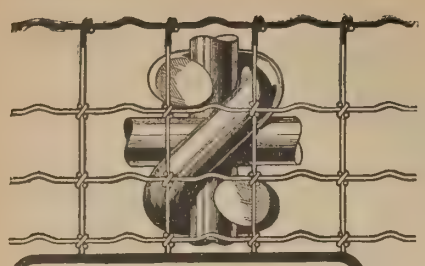
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Protein Requirement of Dairy Cows

(Continued from page 789)

so much for its protein value as for its phosphorus value.

Results With Alfalfa

After we obtained the results with the clover hay—corn silage—cereal grains ration showing that the protein content was insufficient for maintenance and production, we began some work substituting alfalfa hay for red clover hay in the ration. The ration used was alfalfa hay, corn silage, and corn, barley, oats, or a mixture of the three. The experiments were metabolism experiments determining the nitrogen balance.

Much to our surprise we found it possible to not only maintain a nitrogen balance in cows milking 40 to 45 lbs. of milk daily, but to maintain that flow over a period of 16 weeks. The ration contained 10 lbs. alfalfa hay, 25—35 lbs. corn silage, and one pound of grain for 3 lbs. of milk produced. Production varied from 45 lbs. of milk daily to lower levels such as 30 lbs. One animal produced 30 lbs. of milk per day with a fat content of 5 per cent. This ration provided less digestible true protein than the requirements of the Armsby standard and less digestible crude protein than the modified standards suggested by Henry and Morrison. Because of its low energy content whole oats alone should not be used as the sole grain in the alfalfa ration. A mixture of 50 parts oats and corn or oats and barley will work better.

After we had finished these metabolism trials with alfalfa hay, prolonged experiments were carried on at this station comparing the milk yields from groups of cows receiving alfalfa hay, corn silage, and a grain mixture made up of 50 parts of oats and 50 parts of corn with a grain mixture made up of 38.75 parts of corn, 38.75 parts of oats, 10.75 parts of oil meal, and 10.75 parts of cottonseed meal. This grain mixture carried 15 per cent of total protein while the corn—oats mixture carried 11 per cent of total protein. Ten cows were involved in this experiment and were run for practically 6 months in comparison of milk yields and maintenance of weight of animals. The experiment was carried on for two winters and while the results have not been published they are in absolute harmony with our metabolism results and show that the milk flow and maintenance were as good on the low protein ration as they were on the high protein ration.

In practice where alfalfa hay and corn silage are available, a grain ration composed of 400 lbs. of corn meal, 400 lbs. barley, and 200 lbs. wheat bran, or 400 lbs. corn meal, 400 lbs. ground oats, and 200 lbs. bran, when fed at the rate of one pound for 3 lbs. of milk, will provide ample protein where 8—10 lbs. of alfalfa hay and 25—35 lbs. of corn silage are allowed daily.

We have as yet made no metabolism experiments with a poor roughage such as timothy hay plus corn silage and grains. Manifestly where timothy hay or mixed hay and corn silage form the roughage in the ration of dairy cows, the grain and concentrate mixture must be more abundantly supplied with protein than in the case where clover or alfalfa hay is available. The only thing that we must see to is that the protein deficiency of the timothy hay is corrected and made equal to that of alfalfa hay.

Other Factors Than Protein

Our present feeding standards do not provide for more than fuel and protein requirements. Recent investigations, particularly with reference to mineral and vitamin requirements, show these to be of sufficient importance as to warrant their inclusion in any new standards formulated.

Rations containing a sufficient amount of protein and energy may be inadequate to meet the full needs of dairy cows. This has particular reference to calcium (lime), phosphorus, and the recently discovered antirachitic vitamin. The latter is found abundantly in green plant tissue.

Hay, other than legumes, as well as the cereal grains, are comparatively low in calcium. This is more especially true of the grasses for hay grown on acid soils. The legume hays are good sources of lime but curiously its assimilation will not take place unless the antirachitic vitamin is abundant. It has been further shown that where hay is cured, varying amounts of this vitamin are destroyed. Long bleaching and exposure to weather are destructive agents. Alfalfa hay made under caps retains this principle in more generous amounts than where cured in the windrow.

Probably the most practical method to be followed in providing ample supplies of phosphorus and lime for milch cows and to assure its assimilation are: first, to see that wheat bran is always a part of the grain mixture, both summer and winter; this provides plenty of phosphorus. Second, feed more lime practically the year around. This may be either a high grade limestone or bone meal. Feed a high grade limestone at the rate of 3—4 lbs. per 100 lbs. of grain concentrate mixture; third, feeding the lime when the animals are on green pasture and in sunlight assures the building of a mineral reserve for the winter through the provision of an ample supply of the antirachitic vitamin; fourth, even in winter feeding and even when we have a supply of legume hays which are rich in lime, the addition of lime carriers may still be of some use.

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If you never break a promise, if you always pay the money you owe exactly on the day it is due, nobody will know but that you are worth a billion. And you will be just as good a risk as a man worth a billion, for all that he could do would be to pay promptly on the due date.—HAMILTON FISH.

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W. R. KENAN, JR., Owner. T. E. GROW, Supt.

Cedar Crest Farms

For Sale **-- TWO REAL BULLS,** Raleigh breeding. Ready for light service. **Also a few BABY BULLS.** Full particulars and pedigrees on request.

J. K. DERING, Owner Lake Villa, Illinois

6 JERSEY BULLS
2 to 10 months old. R. of M. dams. Three heifer calves, R. of M. dams. Good individuals. Blood of Oxford You'll Do, Sybil's Gamboge, Raleigh, Blonde's Golden Oxford, Bright Prince, H. F. Torono, etc. Farmers' prices. Abortion free, accredited herd.
J. Q. EMERY & SON, EDGERTON, WIS.

Young Bull of Serviceable Age
and bull calf sired by Grandson of Viva La France. Have also a few heifer calves suitable for calf club work and out of good producing cows. Herd Federally tested.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Valley Farm
is offering a few bulls, ready for service, sired by a grandson of Royal Majesty and a son of Sibles Gambogi. Also bred heifers. Federal T. B. tested. Write
FRED STUBLEY, Black Earth, Wis.

FOR SALE—Jersey Bulls
Of serviceable age and a few bull calves. Raleigh and Eminent breeding. Register of Merit dams. Federal Accredited. Choice individuals. Just a few real good ones to offer. Write
ROLLA OLIVER, Route No. 5, Independence, Mo.

POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy., R4, Box 5, Springfield, O.



JERSEYS *Most Profitable Breed for All Purposes of Dairying*

AMERICAN JERSEY CATTLE CLUB
Dept. B, 324 W. 23d St., New York

The Son of a Silver Medal Bull For Sale

SNOWFLAKE'S TORMENTOR 234788, born Feb. 24, 1924

A fine fellow, tracing to Gold Medal Bull, Sophie 19th's Tormentor, on both sides. Photos, pedigrees and description on request.

Herd Federal Accredited **SHERMAN JERSEY FARM, Dept. B, Charles City, Iowa**

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

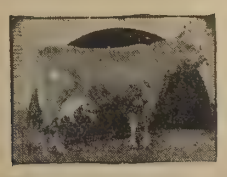
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Clover Seed Warning

(Continued from page 791)

has held its own fairly well. The seed put upon the markets has been grown quite largely in our own country and consequently was much more reliable than the red clover seed. In many instances where red clover has been a failure and a farmer finds it an impossibility to get northern grown red clover seed, it is often much better for him to purchase alsike seed instead. The alsike clover will do much better on the acid soils than the red clovers and can be grown on a soil that is altogether too moist for the red clovers.

Breed Brown Swiss Cattle



SWISS VALLEY GIRL 7th No. 4678

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N.
IRA INMAN, Secretary, Beloit, Wis.
A. E. BOWER, Pres., Union Stock Yds., Cleveland, O.

WALHALLA FARMS
BROWN SWISS HERD
R. R. STATION, BRIER HILL, N. Y.

An infusion of Walhalla blood has proven most advantageous in many herds in this country, Canada, Africa, South America, West Indies and Mexico. Let your next bull carry 100% Walhalla blood. Address
J. FRANK ZOLLER, Schenectady, N. Y.
Care General Electric Co.
Federal Accredited Herd

LEES' HILL FARM
Brown Swiss Herd
MORRISTOWN, N. J.

An infusion of Lee's Hill blood has proven most advantageous in many herds in this country. Buy your bull from a herd in which the germ of improvement is active. Herd accredited.

GUERNSEYS

GUERNSEY

bulls are prepotent. They transmit those desirable breed characteristics to their progeny, and increase the production of grade herds.

Ask for
"The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
Box H. D. 129, PETERBORO, N. H.

Thorn Hill Farm Guernseys



Am closing out 12 fine young bulls, out of high producing A. R. dams. May Rose and other fashionable breeding. Am also offering 10 good cows and heifers. All prices reasonable. Herd accredited. Write for sales lists to
AUGUST ZIESING, Deerfield, Illinois

CENTERVIEW FARM GUERNSEYS
SERVICEABLE BULLS with best of breeding for sale. Write
ERNEST W. SASS, Hoopeston, Ill.

SARNIA FARM
Cherub Guernseys

We have a few bulls old enough for service this fall and winter. Write for particulars. Federal Accredited Herd.

CHAS. L. HILL & SON
Rosendale Wisconsin

Homestead Farm Guernseys
FOR SALE, high class bulls of serviceable age and younger. Also a few cows and heifer calves. Write to
JAMISON BROS., R. 2, Appleton, Wis.

GUERNSEY BULL
FARM NO. 11, DROPPED JUNE 7, 1920

SIRE: Falcon's Proud Warrior 47559. Sire of 7 A. R. daughters. 2d Sire: Langwater Warrior 26509. Sire of 21 A. R. cows and 6 A. R. sons.

DAM: Lupa Lenfestey 25372. A. R. 9825.4 lbs. milk, 536.28 lbs. fat.

For sale at very reasonable price, breeding and individuality considered. We have bulls from this age to young calves for sale. Visit or write before buying, it will pay you. Herd fully accredited.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess County) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

We Offer For Sale Young Bulls, Cows and Heifers
I have three young bulls of desirable breeding at reasonable prices; also some cows and heifers.
W. R. DUNLOP, ELBRIDGE, NEW YORK

Hillbrook Farm Guernseys
E. S. BURKE, Jr., Owner

Herd Sire—LANGWATER HORATIUS, son of Langwater Warrior and out of Langwater Heroine, 805.64 lbs. fat in class D. Mr. Ames had selected Horatius for his next sire at Langwater. Discriminating breeders, such as Coventry Farms, Princeton, N. J., Beechwood Farms, Pittsburg, Pa., Gayosa Farms, Horn Lake, Miss., are using sons of Horatius. Your opportunity to secure sons, out of well bred A. R. dams is present. All daughters will be retained in herd and tested. At 1924 Ohio State Fair we had Jr. champion female and Sr. and grand champion female. At the next show we won 8 out of 9 firsts, 3 championships and 1 grand championship.

For prices and information, write
WM. P. SMEDLEY, Mgr., CHAGRIN FALLS, O.

Island Farm Guernseys
Foundation females and service bulls, all ages, for sale. Strong in the blood of Bedas May King with 27 A. R. daughters averaging 602 lbs. butterfat and Gold Lassie's Julian with 19 A. R. daughters averaging 554 lbs. butterfat. Write us your requirements.
ISLAND FARM, Box A, Floodwood, Minn.

RADISSON FARM
Offers at very attractive prices bull calves of the Coronet Family sired by Golden Coronation King No. 71683 and out of high producing dams.
GOLDEN CORONET OF JEAN DU LUTH NO. 81283, a sister of Golden Coronation King, is the only cow of the breed that has excelled her dam's record of 960 lbs. butter fat.
THE CORONET FAMILY embraces the heaviest producing cows of any Guernsey herd in the State of Minnesota, their butter fat production ranging from 617 lbs. to 960 lbs.
A sire from the Coronet Family will increase the butter fat production of your herd. Let us send you price list and group picture showing the type of Coronet Family Guernseys.
RADISSON FARM (Owned and Operated by Hotel Radisson Co.) Department C. ANOKA, MINN.

Border Raider GUERNSEYS
Type — Uniformity — Production

WADDINGTON FARM
Home of "Imp. Border Raider"
(Carried 29.7% May Rose Blood)

Head your herd with a "RAIDER" sire backed by production and model type. Discriminating breeders from coast to coast recognize the "RAIDERS" for their uniformly good size and type coupled with consistent increase of production. All animals guaranteed breeders.
Accredited herd No. 50474.
WADDINGTON FARM, Wheeling, W. Va.

GUERNSEY BULLS
We offer the best young bulls we ever had. A. R. backing combining type and production. Federal Accredited. Priced right.
Send for new list.
E. S. PERSON, Minot, N. D.

Hillswold Farm Guernseys
W. A. CLOUES, Mgr., Shrewsbury, Mass.

BULLS 6 to 10 Mos. Old
From A. R. Cows
Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. Hoard, Fort Atkinson, Wis.
A Federal Accredited Herd

Serviceable Guernsey Bulls
We have 35 serviceable bulls for sale here now at very reasonable prices. We are also offering several carload of good grade cows and heifers and can supply pure-bred females in carload lots.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec., Fort Atkinson, Wis.

Guernsey Bulls, Calves and Yearlings
May Rose breeding, from prize-winning bred-for-production stock. Federal accredited herd. Farmers' prices. Send for sale list.
RICHARD F. KLEMM, Baraboo, Wisconsin.

Guernsey and Holstein Milk Cows For Sale
IN CARLOAD LOTS—These are high grades, heavy producers, sound, young and tuberculin tested.. Our sale barns are the largest and most modern in Wisconsin. We solicit your patronage. Address your inquiries to O. G. CLARK & CO., WEST SALEM, WIS.

Grandson of Langwater Holliston
PRICE $250.00
If You Are Looking for an Individual Worthy of the Show Ring, Possessing Real Breeding, Buy This Bull. He Will Make Money For You!

His dam, May Belle of Rockingham, is a half sister to Rockingham Maid who was sold for $6,800 and has a record of 820 lbs. of fat. May Belle will make over 500 lbs. fat in FF. The sire of this calf is Langwater Model A. R., our junior herd sire. He is royally bred, being by Langwater Advocate and out of Langwater Pauline, a daughter of Imp. King of the May. The calf we are offering for sale was born April 9, 1924.
DANIEL G. TENNEY, 15 Fourth Street - - NEW YORK CITY

HAYES' CHERUB II and GERAR PEARL
We are line breeding these two great individuals by using our herd sire, Cherub's Dart (out of Pearl's Dot), on our recent purchases at Mr. Stout's and Mr. Marsh's sales.
CAUMSETT FARM, HUNTINGTON, L. I., N. Y.

MARSH FARM GUERNSEYS
Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 49 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise with you about your next sire.
MARSH FARM - - - Waterloo, Iowa

EL JANE GUERNSEYS, Arcadia, Missouri
(Not the largest herd but an exclusive herd of pure-breds. Every cow with a record, now on test, or in preparation for test.)

We have a surplus of Bull Calves all from COWS with records, sired by our Senior Herd Sire, who is a 1st prize and Senior Champion Show Bull. His 5 nearest tested dams averaged over 600 lbs. fat. Some of the dams of these calves made over 11,000 lbs. milk and as high as 580 lbs. of fat as junior 2-year-olds. Look where you will you cannot get better breeding. If you are interested and want to do business quickly on a price you cannot turn down write or wire us for a price list and pedigrees. They will go fast. Also 2 young serviceable bulls in list.
Address: EL JANE FARMS Arcadia, Missouri

2 SONS OF LADYSMITH CHERUB
The TYPE *Plus* PRODUCTION SIRE

ARE OFFERED FOR SALE. Both are serviceable, born in September, 1923, and are out of granddaughters of Beda's May King. One with a record of 590 lbs. fat in FF. The other died shortly after being started on test. Excellent individuals, nicely marked. PRICED AT $1,000 AND $500 respectively.
That most coveted place, 1st get of sire at the National, has been won 4 times in the last 6 years by the get of Ladysmith Cherub.
BUY LADYSMITH CHERUB BLOOD.
SHOREWOOD FARMS, CRYSTAL BAY, MINNESOTA.

CORIUM FARM GUERNSEYS
FOND DU LAC, WISCONSIN

WE OFFER the show bull, CORIUM SNOWDROP'S ERIC, born Oct. 17, 1923, who won the following prizes: First at Grand Forks, No. Dakota; Central States Fair, Aurora, Ill.; Tri-States Fair, Burlington, Iowa; Wisconsin State Fair; Michigan State Fair; New York State Fair; Illinois State Fair. First prize calf herd and first prize produce of dam, Wisconsin State Fair. Write for price list of bulls we have to offer.

50 GRADE HEIFERS—Priced to Sell!
REGISTERED COWS and BULLS FOR SALE

We have at Larsen's Fern-Dell Farm a herd of 100 pure-bred and 200 high grade Guernseys. This is a herd where cows must be profitable producers,—one grade produced 17,555 lbs. milk, 887 lbs. fat in a year.
We now have for sale 50 grade heifers, many bred for early fall freshening, all from good producing dams. Will also price a few pure-bred females of milking age. The bulls we offer are from a few weeks to 14 months old and from A. R. dams. Wire us before you come so we can meet you.
LARSEN'S FERN-DELL DAIRY FARM, A. W. FOX, Mgr., ONEIDA, WIS.

Grade Guernseys For Sale
CARLOAD LOTS OF FRESH, YOUNG GUERNSEY COWS AND SPRINGERS of the best type and breeding. T. B. tested. Also heifers of all ages. We are offering you a choice of 200 head right now. Whether you want one animal or several carloads it will pay you to write us before you buy. Better still, come and see for yourself. Every animal sold, guaranteed to be as represented.
Riverview Farm, Lloyd L. Dewey, Mukwonago, Wis.
(In Waukesha County)

Waukesha County GUERNSEYS
Waukesha County Guernsey Breeders' Association offers you the opportunity of making selections from 175 herds of registered and grade Guernseys. All ages. Prices reasonable. Best of service and satisfaction. Write your wants.
F. E. FOX, Secretary, Waukesha, Wis.

—Registered— Guernsey Bulls
5 to 12 months old. Best of A. R. backing. Herd is clean and one of the oldest in the state.
RALPH TRATT, Whitewater, Wis.

Show Bull For Sale
Serviceable — Cherub Breeding

HYACINTH'S CHERUB OF CHIPPEWA is ready for light service, is a show prospect himself and sired by a show son of Cherub's Prince. His dam is a big, heavy producing Glenwood cow. Write me today if you are interested in such a bull at a farmer's price.
L. P. MARTINY Chippewa Falls, Wisconsin

His Blood Carries On!

Buy it when you can. Write us for descriptions and prices of our bull calves or get in touch with the Guernsey breeder in your territory that has a bull of HOARD'S DAIRYMAN Farm breeding at the head of his herd.

Hoard's Dairyman Farm
FORT ATKINSON WISCONSIN



ANTON'S KING CONFIDENCE—43517 A. R.
(Picture taken when 2 years old)

Remaking a Herd

(Continued from page 792)

made by a cow named Nigger. She produced 482.2 lbs. fat.

The lowest producing cow was named Pansy and produced 325.2 lbs. fat.

Nigger produced fat and skimmilk worth $269.50 at a feed cost of $101.68, giving an income of $167.82 above feed cost.

Pansy produced fat and skimmilk worth $185.19 at a feed cost of $84.09, giving an income of $101.10 above feed cost.

The high producing cow made $67.07 more profit than the low producing cow. This shows how the profit increases as the production increases.

In order to show how the cost of production goes down as the average production of the herd increases, we have compared below the cost of the feed fed for the two six months' periods, January to July, 1922, and January to July, 1924. In order that the comparison be fair we have assumed the following prices for feeds on the farm both years: hay $12.00, fodder $8.00, silage $4.00, and grain $35.00 per ton. Pasture 5c per day per cow:

Period January to July, 1922	
Hay, 15,110 lbs. at $12 per ton	$90.66
Fodder, 14,668 lbs. at $8 per ton	58.67
Pasture, 405 days at $.05 per day	20.25
Grain, 11,764 lbs. at $35 per ton	205.87
	$375.45
Fat produced 1,254.6 lbs.	
Cost of feed for each lb. fat	29.9c
Period January to July, 1924	
Hay, 13,740 lbs. at $12 per ton	$82.44
Silage, 41,660 lbs. at $4 per ton	83.32
Pasture, 210 days at $.05 per day	10.50
Grain, 12,033 lbs. at $35 per ton	210.57
	$386.83
Fat produced, 1,682.1 lbs.	
Cost of feed for each lb. fat	22.9c

The six months' figures used here are from January first to July first. As the cows are in the barn 80 per cent of this time it is the period of the year when the cost of production is highest. A comparison of the other months when cows are on pasture will show a lower cost per pound of fat.

The Stoyer farm consists of 130 acres. Mr. Stoyer is gradually turning more plow land into permanent pasture and by liming and the use of fertilizers is bringing up the per acre yield. On one of our trips into this district we passed the Stoyer farm and stopped at one of the neighbors. He asked us if we noticed what Stoyer was doing when we passed. We answered: "Cutting wheat and it looks good too." The neighbor's reply was: "Stoyer always has good crops."

April, 1922, the Agricultural Committee of the Greenville Chamber of Commerce employed a man to carry on extension work in the Greenville Farming Community, co-operating with the Mercer County Farm Bureau. The funds for this work, about $4,000 per year, were raised by subscription from the business men of Greenville. It was through the efforts of this field man that the Greenville division of the Mercer County No. 3 Cow Testing Association, of which Mr. Stoyer is a member, was organized.

The cares of life, if carried too far, bring more of pain than pleasure and war against health. Thus I praise not what is in extreme, but the idea "nothing in excess", and the wise will agree with me.—EURIPIDES.

AYRSHIRES

AYRSHIRES
For PROFIT!

The best markets today demand a 4% milk. The Ayrshire is the one cow that is a profitable 4% producer. The milk from an Ayrshire herd will average 4%.

If you are interested in owning a herd of profitable Ayrshires, write us. We would like to send you definite information about our breed.

The Ayrshire Breeders' Association
10 Center St., BRANDON, VERMONT

WALLIS FARMS AYRSHIRES
Breeder of Registered Ayrshire Cattle, now offering for sale individuals of both sex, based on records and performance.
Federal Accredited Herd.
H. M. WALLIS, *Owner* Racine, Wis.

AYRCROFT FARM
is offering for sale at $125.00 their sr. bull calf that was 1st at seven of the leading fairs of the Central States. Dam gave 64 lbs. butterfat in November in a cow testing association. Herd Federal Accredited.
B. B. SIMMONS & SONS, Pewaukee, Wis.

Pure Bred Ayrshire Cattle For Sale
Accredited herd No. 63105. Maud of Fernbrook 14th, state class leader. Junior two-year-old, 13280 lbs. milk, 477 lbs. fat. Herd sire, Alta Crest Mainstay. Grand Champion over all breeds Junior live stock show, Madison, 1922.
Wm. NISBET & SONS, Richland Center, Wis.

Accredited Ayrshires
Good type and production are found in our herd. A special price on young stock. Write for prices.
W. T. SHUTTLEWORTH,
Route 4, Ypsilanti, Mich.

Serviceable Young Ayrshire Bull
Paternal brother to Boggie of Eastside (World's Champion). Out of Bell of Shadybrook No. 37099 who produced 11,590 lbs. milk, 450 lbs. fat in 300 days at the age of 11 years. Price $150.00. Breeding and photos sent on request.
SYCAMORE FARMS
Federally Accredited Douglasville, Pa.

Ayrshire Offering of World's Champion Breeding
Fully Accredited Herd—Certificate No. 10241
BULL born Nov. 13, 1924. Color, mostly white. A thrifty individual. Guaranteed Sire: Penshurst Rising Star, 20922, A. R. 260, sire of 18 daughters in the A. R. and R. H. with 24 records averaging 10,722 lbs. milk, 557 lbs. butter, 4.15%. Dam: Kate's Trophy, 43875, an ideal cow in every respect, with three official records averaging 14,142 lbs. milk 560 lbs. fat. Also a few COWS and a nice line of HEIFER CALVES.
PRICE: $200.00.
GLEN FOERD FARMS, Torresdale, Pennsylvania

FOR SALE
Twenty-five well bred Registered Ayrshires (accredited herd.) Mostly heifers, one to eighteen months old. Some foundation cows. Personal inspection desired.
FRIENDS HOSPITAL, Frankford, Philadelphia, Pa.

ACCREDITED AYRSHIRES
POPULAR BREEDING—HIGH PRODUCTION
All cows now making A. R. records. Young stock at reasonable prices including young bull from high testing cow. Herd sire backed by world's record producers.
CLOVER BROOK FARM, BRISTOL, PA.

HOLSTEINS

Grade Holsteins
19 Heifers For Sale
Being over stocked we offer as a whole, one family of 19 daughters ranging in age from 7 months to 2 years. Sired by a 30-lb. bull whose dam was former Kansas state champion. They are priced to sell for the above reason.
FRED HARVEY DAIRY FARMS, Newton, Kas.

EDGERSTOUNE FARM AYRSHIRES — Type + Production
Five daughters of Hobsland Lucky Boy 16482 average 12,988.7 lbs. milk, 522.29 lbs. fat. This farm won in 1923 1-R of H. Silver Medal, 4 advanced Registry Silver Medals and 2 French Cups.
CHOICE YOUNG BULLS FOR SALE
MRS. JOHN G. WINANT, Owner GEORGE A. HILL, Mgr., Princeton, N. J.



ENSIGN MATADOR MODEL ABBEKERK
Dam:—A 16-pound 3-year-old
Sire:—Matador Segis Walker
Born Jan. 31, 1922

$300 Buys This Proven Show Bull
A Son of Matador Segis Walker
He was 2nd prize bull at the 1923 Wisconsin State Fair
He was 1st prize bull at the 1923 Vancouver Exposition.
He was junior champion at the 1923 Pacific International.
100% Healthy — Good Disposition — Sure Breeder

WE believe this bull to be one of the most desirable bulls we ever offered. He has been shown all over the United States and has always been in the money.
Write Us For The Story of His Brother

Carnation Milk Farms
111-A Carnation Bldg.
OCONOMOWOC, WISCONSIN

SHOW TYPE and PRODUCTION
Young Bulls For Sale



Grahamholm Colantha Segis Maid
She twice produced over 33,000 lbs. milk and over 1,200 lbs. butter in a year.

Sired by a son of Grahamholm Colantha Segis Maid, our world record daughter of Dutchland Creamelle Colantha Lad. We also have some very good sons of Dutchland Creamelle Colantha Lad. These bulls are from 7-day and year record dams. They are priced very reasonably.
"Dutch" himself, as well as several of his daughters, have been prize winners at the National.
Write today for booklet containing bull sale list and history of the Grahamholm herd.
Watch the Colanthas, particularly Dutchland Creamelle Colantha Lad
GRAHAMHOLM FARM
D. G. TWENTYMAN, Mgr., Rochester, Minn.

Select Your Foundation Females in Northfield Community
WHERE MANY OF THE GREAT HOLSTEINS OF THE BREED, OR THEIR IMMEDIATE ANCESTORS, WERE BRED
Send for the new community circular just out, or better still, come and select those *you like* whether grades or pure-breds. We have them at reasonable prices.
CARLETON COLLEGE FARMS NORTHFIELD, MINNESOTA
FEDERAL ACCREDITED HERD

An Exceptional GOOD BULL, For Sale,--Whose Two Nearest Dams Average 1126 Lbs. Butter in 365 Days. *Born Dec. 20, 1923*
Sire, Sir Walker Segis Homestead, a proven show bull, (32 A. R. O. daughters), a son of "PIEBE" from a 1230-lb. former world's record daughter of "COUNT".
Dam, Hengerveld Oak Marie, a senior four-year-old who made 25,120 lbs. milk and 1016 lbs. butter in a year, and is the dam of Minn. State Champion junior two-year-old milk producer.
Calf, nicely marked, good individual, a real buy. Send for pedigree and photo.
A. J. LASHBROOK - - - Northfield, Minnesota



Sir Walker Segis Homestead

P. Frost Spaulding Farm Co.
offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.
C. L. SPAULDING, MGR., Warren, Minn.

A Grandson of S. P. O. M. 37th
Dam's yearly record 819.2 lbs. butter. Born March 12, 1924. Very good individual; ⅔ white. Price $150. Herd federal accredited.
B. A. NORRIS ANOKA, MINN.

Foundation Holsteins
Selected With Care
Ask for prices and particulars on sons and daughter of our Two—1st prize bulls at the Northwest Dairy Exposition and the Minnesota State Fair. You will be surprised to learn how reasonable we sell these choice animals. Accredited herd.
ONAL HOLSTEIN STOCK FARM
Alexandria Minnesota

SHOW SON OF S. P. O. M. 41
HERD SIRE FOR SALE OR EXCHANGE—to avoid in-breeding. Born Dec. 1918. Exceptional individual. If interested come and see him and his daughters or write for pedigree and price.
P. J. NELSON & IVER HANSON, Clarissa, Minn.

A YEARLY RECORD HERD
The Clover Lawn Farm Holsteins. 150 head. 60 cows with yearly records. 20 young bulls, one month to 2 years old for sale, sired by King Longfield Pearl Vale, whose dam made 1225 lbs. of butter 26,050 lbs. milk a year. Can spare a few choice young cows. State exactly what you want.
JOHN H. PULS - - ALLENTON, WIS.

HERD SIRE FOR SALE
Pabst King Pontiac Lad 13th, our 4-year-old sire is for sale. His sire is a 39-lb. 1040-lb. son of King Pontiac Champion. His dam is a 31-lb. 894-lb. daughter of the same sire, "Lad" is guaranteed right.
MEADOW SPRING STOCK FARM
F. H. Boyle, Prop., 104 So. Main St., Fond du Lac, Wis.

SAUK COUNTY HOLSTEIN ASS'N.
Pure-bred cows, bulls, heifers, calves. Good Holsteins from clean herds. On hand at all times.
N. T. GILL, Sec'y., Reedsburg, Wis.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION
S. W. Pierce, Sec'y, Randolph, Wisconsin

HEALTHY HOLSTEINS
If you want either purebreds or grades from federal tested herds and sold on a retest guarantee write us. Prices are very reasonable.
ROCK COUNTY HOLSTEIN BREEDERS' ASS'N.
John W. Jones, Sec. MILTON JCT., WIS.

OUR HERD SIRE
Toyon Galaxy Model Segis
is a son of that good show bull, Judge Segis, from a 30-lb. 1,129-lb. granddaughter of Colantha Johanna Lad. She was twice grand champion at the California State Fair.
DICMERE FARMS, H. E. DICKINSON,
Oconomowoc, Wisconsin
Herd under federal supervision.

Ollie-Ormsby
BULL CALVES sired by Sir Ollie Mooie Watson, highest record son of Iowana Sir Ollie. Two April, 1924, calves from 32- and 29-lb. granddaughters of Pietertje Maid Ormsby. Right in type and price. Write or visit.
WALCOWIS FARMS Lake Geneva, Wis.

When You Want Holsteins!
Come to Jefferson Co. 1000 herds to select from. Our secretary, an experienced Holstein man, will assist you free of charge. Write
JEFFERSON CO. HOLSTEIN ASS'N, T. W. Anthes, Sec., Jefferson, Wis.

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We Have a Few Sons of S. P. O. M. 41st

From 7-day and Yearly Record Dams For Sale.
If you are in need of a Herd Sire, write us for further information.

HOLLYHOCK FARMS
DOUSMAN - WISCONSIN
(IN WAUKESHA COUNTY)
GUSTAVE PABST, Owner F. J. SOUTHCOTT, Manager
A clean herd under state and federal supervision

REGISTERED HOLSTEINS

GOOD FEMALES AND HIGH CLASS YOUNG BULLS FOR SALE

Write us your wants. We can furnish you with bulls from 7-day and year record dams. We also have some excellent cows and heifers for sale.

Our herd sires are:
AMBASSADOR FOBES 337162
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MURPHY FARMS
303 Bellin Bldg., Green Bay, Wis.

WAUKESHA COUNTY HOLSTEINS
COW COUNTY, U. S. A.

Just at present we can offer bargains in pure-bred and high grade Holsteins, all ages. Several carload of springing cows and heifers. Two-thirds of the official testing in this state done in this county. A wonderful opportunity to select a herd sire. Organized for your service. Buy before prices advance.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION
133 Barstow Street Waukesha, Wis.

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— Offers For Sale —
at reasonable prices from the first accredited herd in the United States
PURE BRED HOLSTEIN-FRIESIAN MALE CALVES
from one to nine months old, from yearly tested dams and sons of the following sires:
GENERAL PIEBE NO. 323266 H. B.
One of the richest bred sons of the well known K. P. O. P., whose descendants have in the past five show seasons won no less than 254 first prizes and 91 championships at state, national and important district shows. His five nearest dams all have 1200 pounds butter in 365 days.
GRAHAMHOLM COLANTHA PAULINE LAD NO. 297377
A 30-pound son of Dutchland Creamelle Colantha Lad, whose *first nine* daughters to complete full year records average over 1000 pounds butter from 24,000 pounds milk at an average age 3 years and 10 months.
His dam and two nearest dams of his sire are all 30 pounds butter in 7 days.

30 Extra Fancy Grade
HOLSTEIN COWS

Due to freshen September and October. All young and free from blemishes. Tuberculin tested by Federal Veterinarian and eligible to be placed in an Accredited Herd. These cows are very heavy producers, making from 12,000 to 20,000 lbs. each. Will be sold cheap, quality considered. If in market write
RIVER MEADOW FARMS, Portlandville, N. Y.

Foundation Stock

HEIFERS, COWS, CALVES both sex of good breeding, from 2 mos. old up. Prices within reach.
ORCHARD CREST FARMS, SCHOHARIE, N. Y.

Bull Calves For Sale

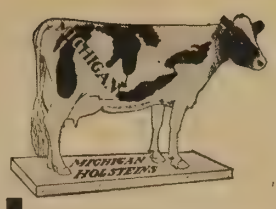
We have a few male calves from choice dams for sale. They are sired by Meadow Holm Jolie Pontiac Hartog—our 1173-pound yearly record sire. Lots of milk records back of this breeding.

=PRICE $50.00=

SLIVKA BROS. Plainview, Illinois

Oatman Farm Holstein Herd

FEDERAL ACCREDITED
Every cow has an A. R. O. record. World's record and grand champion breeding. Write for bull sale list.
O. A. JENS, Mgr., DUNDEE, ILL.



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If you want healthy, good producing, well bred cattle, come to Michigan whether you wish to purchase a single animal or several car loads. You will find our members reliable men to deal with. The state association office will be glad to assist you wherever possible.

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION, East Lansing, Michigan
OFFICE AT DAIRY BLDG., COLLEGE OF AGRICULTURE

TWO BULLS FOR SALE
One from a 29 lb. dam, the other from a 27 lb. 3 year old. Both are by Segis Flint Hengerveld Lad, a 30-lb. son of Flint Hengerveld Lad, he a grandson of Johan Hengerveld Lad. Both bulls priced to sell quickly. The herd is clean.
L. C. KETZLER, R. 8 Flint, Mich.

2 SERVICEABLE BULLS
One from a 23 lb. 3 year old, the other from a 26 lb. cow. Both are sired by a son of King Ona from a 32 lb. 3 year old daughter of King Korndyke Sadie Vale. First check for $150 takes either bull. Herd under Federal supervision.
J. E. BURROUGHS Flint, Mich.

D. D. AITKEN, Flint, Mich.

MAPLECREST KORNDYKE HENGERVELD—Only Century Sire living—Senior Herd Sire.
FLINT ONA HENGERVELD SEGIS—Junior Herd Sire.
FOR SALE
A bull calf one year old, well grown, large for age, more black than white, show type. Sired by our junior herd sire—dam better than 30 pound cow of wonderful type and breeding.
PRICE $300.00.

Did You Ever Milk a Heifer?
That made 20.99 lbs. butter at 23 months old in 7 days? Our this week's offering is from such a heifer and in the first 8 mo. of her lactation has made 11,347.9 lbs. milk 459.19 btr. (private herd record). He is sired by ECO-SYLV KING WALKER, a son of Champ, Echo Sylvia Pont. from a 31 lb. jr. 3 yr. old. He was born Feb. 3, 1924 and is well grown. The price is $175.00. Terms to suit. Write for pedigree and picture.
SERRADELLA FARMS, Albert E. Jenkins, Mgr., A Clean Herd OSCODA, MICH.

Young Bulls
AT FARMERS' PRICES!

I am offering for sale several excellent young bulls at very reasonable prices. They are sired by Ollie Pontiac Segis Piebe, one of the finest individaul sons of Piebe Laura Ollie Homestead King, out of a 1025-lb. daughter of King Segis Pontiac Count, and are out of well bred, good producing dams. These bulls are from a few weeks to twelve months old.

WRITE TODAY IF YOU NEED A BULL
LILLIBERK FARMS, J. F. Berkheimer
P. O. Box 241 DETROIT, MICH.

Wabeek Farm Holsteins
Foundation Females For Sale

We are now in a position to offer good foundation females from our herd of over 200 registered Holsteins. We have at the present time a carload of exceptionally good yearling heifers bred for early winter freshening for sale. Part of them are by Sir Ormsby Colantha Bakker, he from Emblagaard Colantha Bakker, 30.79-lb. 3-yr.-old, and the dam of Bell Farm Bakker. The others are by Maplecrest De Kol, a son of Friend Hengerveld De Kol Butter Boy.

We will also price a few good cows. Most of our milking herd have A. R. O. records and all have private herd records.

If you want good Holsteins write us or better still come and select what you want from the herd—under Federal Supervision.

WABEEK FARM, Harry Mather, Mgr.
R. 3, PONTIAC MICHIGAN

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Our printed list of bulls for sale by MICHIGAN STATE HERDS includes a choice selection of excellent lines of breeding with wonderful record backing.

20% Discount

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REGISTERED HOLSTEIN CATTLE

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Department B LANSING, MICHIGAN

Detroit Creamery Co. Holsteins
Sir Hengerveld Pietertje Ormsby, Sr. Sire

A grand champion bull whose daughters prove him one of the really good present day sires. He is a double grandson of S. P. O. M. His dam, Chloe Pietertje Ormsby, has 4 yearly records that average 1,048 lbs. butter. We can now offer a few bull calves by him and from 7-day and year record dams.



We Are Offering For Sale
a 6-months-old bull whose dam, a 29-lb. 2-year-old, is now on year test as a 4-year-old with 514 lbs. butter in 4½ months. She is a granddaughter of May Echo Sylvia. His sire is a son of Jemima Johanna Segis, 1,175 lbs. butter as a 4-year-old.

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THE ONLY LIVING CENTURY SIRE



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Bulls For Sale of World's Champion Breeding

SIRED BY MAY ECHO PLUS DIXIE, A SON OF AVON PONTIAC ECHO AND DE KOL PLUS SEGIS DIXIE, THE DAIRY QUEEN OF THE WORLD.
Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.
FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD
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Three bull calves for sale from tested dams and an Ormsby bred bull. Born in February. Also a son of a 38-lb. cow with a year record of 970 lbs. born in June. Write for prices and pedigrees.
Herd under federal supervision.
H. L. BINGHAM, Arlington Heights, Ill.

BULL CALF BORN FEB. 11th, 1924

Well grown, mostly white, and a good one
Dam: A two-year-old daughter of Meadow Holm Ona Hartog King, now making good year record; dam's dam an 894-pound four-year-old daughter of Sir Johanna Fayne. Five near dams average over 900 pounds butter from over 21,000 pounds milk, and the dam now on test.
Write for particulars and price.
IOWANA FARMS Davenport, Iowa

A Colantha Bull---Yearly Record Dam

KING AAGGIE BUCKEYE COLANTHA, born May 25, 1924, ear tag No. 355 is three-fourths white, well grown, and a good individual. His dam produced 22,000 lbs. of milk, 831 lbs. butter on strictly official test last year as a 2-year-old. She should pass the 30,000-lb. mark at full age. Her dam has 1067 lbs. as a 3-year-old and 1127 lbs. butter from over 27,000 lbs. milk (strictly official) at full age. His sire, a 31-lb. 1193-lb. bull, combines the blood of Colantha Johanna Lad and Aaggie Cornucopia Pauline. Write today for price, pedigree, etc.
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NO BUCKLES TO TEAR
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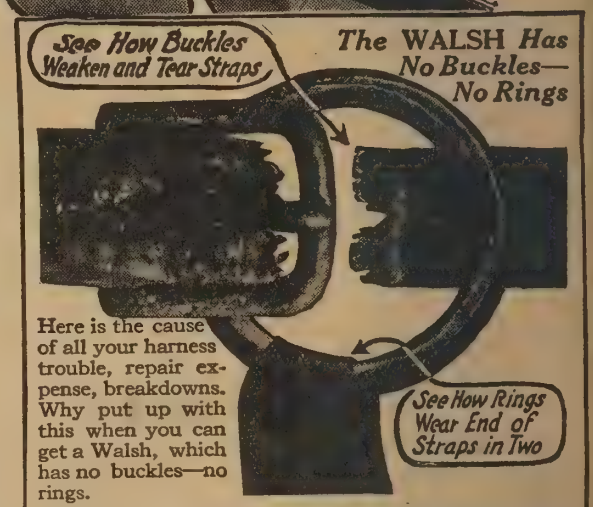


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Users say that the leather used in Walsh Harness is the best they ever saw in Harness. I use only the choicest Packers' Northern Steer Hide Leather—tanned by the old-fashioned six months bark tan process. I want you to send today for my free book and read about actual test in steel testing machine—it proves that Walsh Leather holds twice as much as ordinary harness leather. Ask me to send you at once my free book, full of interesting and valuable information—explains fully how my leather is tanned and tested.

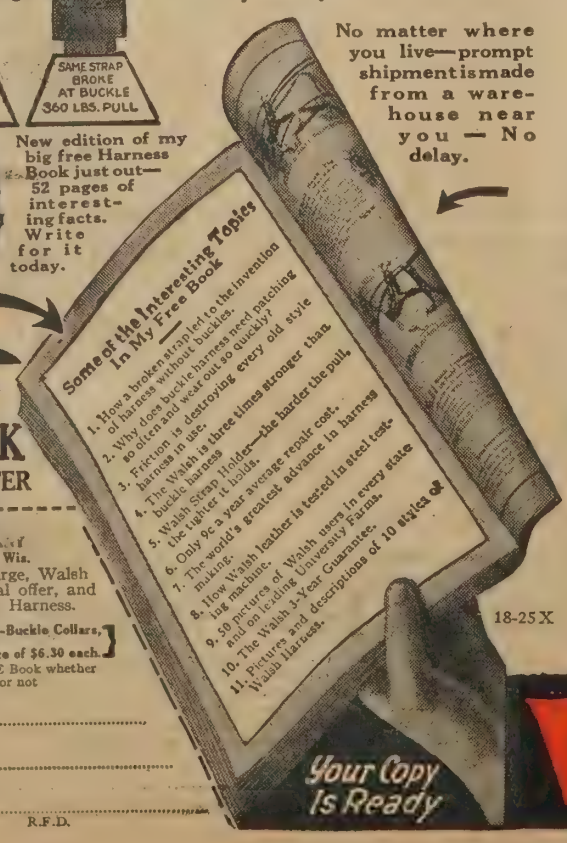
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